A Complete Bibliography of Publications in *Communications of the ACM*: 2020–2029

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References

Chien:2020:ELC

[1] Andrew A. Chien. Editor's letter: Cracks in open collaboration in universities. *Communications of the ACM*, 63(1):5, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3374766`.

Vardi:2020:DPP

[2] Moshe Y. Vardi. Departments: Publish and perish. *Communications of the ACM*, 63(1):7, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3373386`.

Meyer:2020:BSS

[3] Bertrand Meyer. BLOG@CACM: In search of the shortest possible schedule. *Communications of the ACM*, 63(1):8–9, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3371385`.

Klarreich:2020:NMH

[4] Erica Klarreich. News: Multiplication hits the speed limit. *Communications of the ACM*, 63(1):11–13, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3371387`.

Kugler:2020:NHI

[5] Logan Kugler. News: How the Internet spans the globe. *Communications of the ACM*, 63(1):14–16, January

2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3371411.

Greengard:2020:NWD

[6] Samuel Greengard. News: Will deepfakes do deep damage? *Communications of the ACM*, 63(1):17–19, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3371409.

Joh:2020:LTI

[7] Elizabeth E. Joh. Law and technology: Increasing automation in policing. *Communications of the ACM*, 63(1):20–22, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3372912.

Cusumano:2020:TSMa

[8] Michael A. Cusumano. Technology strategy and management: 'platformizing' a bad business does not make it a good business. *Communications of the ACM*, 63(1):23–25, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3372918.

Haigh:2020:HRN

[9] Thomas Haigh and Mark Priestley. Historical reflections: von Neumann thought Turing's universal machine was 'simple and neat.': but that didn't tell him how to design a computer. *Communications of the ACM*, 63(1):26–32, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3372920.

Himmelreich:2020:VET

[10] Johannes Himmelreich. Viewpoint: Ethics of technology needs more political philosophy. *Communications of the ACM*, 63(1):33–35, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3339905.

Davis:2020:VSW

[11] James W. Davis and Jeff Hachtel. Viewpoint: A* search: what's in a name? *Communications of the ACM*, 63(1):36–37, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3326600.

Sha:2020:REA

[12] Sanjay Sha. The reliability of enterprise applications. *Communications of the ACM*, 63(1):38–45, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3369756.

Ruoti:2020:BTW

[13] Scott Ruoti, Ben Kaiser, Arkady Yerukhimovich, Jeremy Clark, and Robert Cunningham. Blockchain technology: what is it good for? *Communications of the ACM*, 63(1):46–53, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3369752.

Helland:2020:STD

[14] Pat Helland. Space time discontinuum. *Communications of the ACM*, 63(1):54–56, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3369744`.

Bagchi:2020:DEC

[15] Saurabh Bagchi, Muhammad-Bilal Siddiqui, Paul Wood, and Heng Zhang. Dependability in edge computing. *Communications of the ACM*, 63(1):58–66, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3362068`.

Du:2020:TIM

[16] Mengnan Du, Ninghao Liu, and Xia Hu. Techniques for interpretable machine learning. *Communications of the ACM*, 63(1):68–77, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3359786`.

Rajsbaum:2020:MCC

[17] Sergio Rajsbaum and Michel Raynal. Mastering concurrent computing through sequential thinking. *Communications of the ACM*, 63(1):78–87, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3363823`.

Guzdial:2020:TPT

[18] Mark Guzdial. Technical perspective: Is there a geek gene? *Communications of the ACM*, 63(1):90, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3372157`.

Patitsas:2020:ECS

[19] Elizabeth Patitsas, Jesse Berlin, Michelle Craig, and Steve Easterbrook. Evidence that computer science grades are not bimodal. *Communications of the ACM*, 63(1):91–98, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3372161`.

Shasha:2020:LBF

[20] Dennis Shasha. Last byte: Feedback for foxes. *Communications of the ACM*, 63(1):104–ff, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3372389`.

Pancake:2020:ELS

[21] Cherri M. Pancake. Editor's letter: Start small, then achieve big impact. *Communications of the ACM*, 63(2): 5, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3377932`.

Cerf:2020:CD

[22] Vinton G. Cerf. Cerf's up: On durability. *Communications of the ACM*, 63(2):7, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3377424`.

Guzdial:2020:SUS

[23] Mark Guzdial. Sizing the U.S. student cohort for computer science. *Communications of the ACM*, 63(2):10–11, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3374764.

Edwards:2020:NLT

[24] Chris Edwards. News: Learning to trust quantum computers. *Communications of the ACM*, 63(2):13–15, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3374874.

Marks:2020:NDW

[25] Paul Marks. News: Dark web's doppelgängers aim to dupe antifraud systems. *Communications of the ACM*, 63(2):16–18, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3374878.

Kirkpatrick:2020:NTS

[26] Keith Kirkpatrick. News: Tracking shoppers. *Communications of the ACM*, 63(2):19–21, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3374876.

Iglesias:2020:GCW

[27] Carlos Iglesias, Dhanaraj Thakur, and Michael L. Best. Global computing: Are we losing momentum? *Communications of the ACM*, 63(2):22–24, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376125.

Leveson:2020:IRY

[28] Nancy Leveson. Inside risks: Are you sure your software will not kill anyone? *Communications of the ACM*, 63(2):25–28, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376127.

Neville-Neil:2020:KVN

[29] George V. Neville-Neil. Kode vicious: Numbers are for computers, strings are for humans. *Communications of the ACM*, 63(2):29–30, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376630.

Hsu:2020:VWH

[30] Yen-Chia Hsu and Illah Nourbakhsh. Viewpoint: When human-computer interaction meets community citizen science. *Communications of the ACM*, 63(2):31–34, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376892.

Kussmaul:2020:VGS

[31] Clif Kussmaul. Viewpoint: Guiding students to develop essential skills. *Communications of the ACM*, 63(2):35–37, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

URL https://dl.acm.org/doi/abs/10.1145/3376893.

Frazelle:2020:OBM

[32] Jessie Frazelle. Opening up the baseboard management controller. *Communications of the ACM*, 63(2):38–40, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3369758.

Godbolt:2020:OCC

[33] Matt Godbolt. Optimizations in C++ compilers. *Communications of the ACM*, 63(2):41–49, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3369754.

Bianchini:2020:TMC

[34] Ricardo Bianchini, Marcus Fontoura, Eli Cortez, Anand Bonde, Alexandre Muzio, Ana-Maria Constantin, Thomas Moscibroda, Gabriel Magalhaes, Girish Bablani, and Mark Russinovich. Toward ML-centric cloud platforms. *Communications of the ACM*, 63(2):50–59, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3364684.

Olsson:2020:DPS

[35] Thomas Olsson, Jukka Huhtamäki, and Hannu Kärkkäinen. Directions for professional social matching systems. *Communications of the ACM*, 63(2):60–69, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3363825.

Godefroid:2020:FHA

[36] Patrice Godefroid. Fuzzing: hack, art, and science. *Communications of the ACM*, 63(2):70–76, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3363824.

Gruteser:2020:TPL

[37] Marco Gruteser. Technical perspective: Lighting the way to visual privacy. *Communications of the ACM*, 63(2):80, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3375569.

Zhu:2020:AVP

[38] Shilin Zhu, Chi Zhang, and Xinyu Zhang. Automating visual privacy protection using a smart LED. *Communications of the ACM*, 63(2):81–89, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3375571.

Hoffmann:2020:LBE

[39] Leah Hoffmann. Last byte: 'everything fails all the time'. *Communications of the ACM*, 63(2):96–ff, February 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3374762.

Vardi:2020:DAC

[40] Moshe Y. Vardi. Departments: Advancing computing as a science and

profession: but to what end? *Communications of the ACM*, 63(3):5, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3381047`.

Staff:2020:LECa

[41] CACM Staff. Letters to the editor: Conferences and carbon impact. *Communications of the ACM*, 63(3):6–7, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3380448`.

Hill:2020:CV

[42] Robin K. Hill. Coding for voting. *Communications of the ACM*, 63(3):8–9, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3379491`.

Greengard:2020:NCN

[43] Samuel Greengard. News: Can nanosheet transistors keep Moore's law alive? *Communications of the ACM*, 63(3):10–12, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3379493`.

Monroe:2020:NAH

[44] Don Monroe. News: Algorithms to harvest the wind. *Communications of the ACM*, 63(3):13–14, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3379497`.

Kirkpatrick:2020:NAL

[45] Keith Kirkpatrick. News: Across the language barrier. *Communications of the ACM*, 63(3):15–17, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3379495`.

Lachney:2020:ECC

[46] Michael Lachney and Aman Yadav. Education: Computing and community in formal education. *Communications of the ACM*, 63(3):18–21, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3379918`.

Denning:2020:PID

[47] Peter J. Denning and Dorothy E. Denning. The profession of IT: Dilemmas of artificial intelligence. *Communications of the ACM*, 63(3):22–24, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3379920`.

Reingold:2020:VTL

[48] Omer Reingold. Viewpoint: Through the lens of a passionate theoretician. *Communications of the ACM*, 63(3):25–27, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3378543`.

OHara:2020:VFI

[49] Kieron O'Hara and Wendy Hall. Viewpoint: Four Internets. *Communications of the ACM*, 63(3):28–30, March

2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3341722.

Canellas:2020:VUL

[50] Marc Canellas and Rachel Haga. Viewpoint: Unsafe at any level. *Communications of the ACM*, 63(3):31–34, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3342102.

Pierce:2020:VCE

[51] Benjamin C. Pierce, Michael Hicks, Crista Lopes, and Jens Palsberg. Viewpoint: Conferences in an era of expensive carbon. *Communications of the ACM*, 63(3):35–37, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3380445.

Frazelle:2020:SBP

[52] Jessie Frazelle. Securing the boot process. *Communications of the ACM*, 63(3):38–42, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3379512.

Cook:2020:ALB

[53] Richard I. Cook. Above the line, below the line. *Communications of the ACM*, 63(3):43–46, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3379510.

Awad:2020:CMM

[54] Edmond Awad, Sohan Dsouza, Jean-François Bonnefon, Azim Shariff, and Iyad Rahwan. Crowdsourcing moral machines. *Communications of the ACM*, 63(3):48–55, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3339904.

Smite:2020:SG

[55] Darja Smite, Nils Brede Moe, Marcin Floryan, Georgiana Levinta, and Panagiota Chatzipetrou. Spotify guilds. *Communications of the ACM*, 63(3):56–61, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3343146.

Austin:2020:BMB

[56] Jonny Austin, Howard Baker, Thomas Ball, James Devine, Joe Finney, Peli De Halleux, Steve Hodges, Michał Moskal, and Gareth Stockdale. The BBC micro:bit: from the U.K. to the world. *Communications of the ACM*, 63(3):62–69, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3368856.

Fried:2020:ESI

[57] Ohad Fried, Jennifer Jacobs, Adam Finkelstein, and Maneesh Agrawala. Editing self-image. *Communications of the ACM*, 63(3):70–79, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

URL https://dl.acm.org/doi/abs/10.1145/3326601.

Kienzle:2020:TMD

[58] Jörg Kienzle, Gunter Mussbacher, Benoit Combemale, Lucy Bastin, Nelly Bencomo, Jean-Michel Bruel, Christoph Becker, Stefanie Betz, Ruzanna Chitchyan, Betty H. C. Cheng, Sonja Klingert, Richard F. Paige, Birgit Penzenstadler, Norbert Seyff, Eugene Syriani, and Colin C. Venters. Toward model-driven sustainability evaluation. *Communications of the ACM*, 63(3):80–91, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3371906.

Isaacs:2020:PPT

[59] Rebecca Isaacs. A perspective on pivot tracing: technical perspective. *Communications of the ACM*, 63(3):93, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3378931.

Mace:2020:PTD

[60] Jonathan Mace, Ryan Roelke, and Rodrigo Fonseca. Pivot tracing: dynamic causal monitoring for distributed systems. *Communications of the ACM*, 63(3):94–102, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3378933.

Shasha:2020:LBSa

[61] Dennis Shasha. Last byte: Stopping tyranny. *Communications of the ACM*, 63(3):104–ff, March 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3380444.

Pancake:2020:NWT

[62] Cherri M. Pancake. New ways to think about CS education. *Communications of the ACM*, 63(4):5, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cerf:2020:MA

[63] Vinton G. Cerf. Multisensory adventures. *Communications of the ACM*, 63(4):7, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Staff:2020:AMC

[64] CACM Staff. Adding more color to patch picture. *Communications of the ACM*, 63(4):9, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Guzdial:2020:TTO

[65] Mark Guzdial. Teaching teachers to offer STEM to undergrads. *Communications of the ACM*, 63(4):10–11, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hoffmann:2020:RVM

[66] Leah Hoffmann. Reinventing virtual machines. *Communications of the ACM*, 63(4):128ff, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Anthes:2020:DLC

[67] Gary Anthes. Dead languages come to life. *Communications of the ACM*, 63(4):13–15, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Mone:2020:MLM

[68] Gregory Mone. Machine learning, meet whiskey. *Communications of the ACM*, 63(4):16–17, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shein:2020:HUD

[69] Esther Shein. How universities deploy student data. *Communications of the ACM*, 63(4):18–20, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Rubel:2020:TDE

[70] Alan Rubel and Kyle M. L. Jones. The temptation of data-enabled surveillance. *Communications of the ACM*, 63(4):22–24, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sako:2020:AIF

[71] Mari Sako. Artificial intelligence and the future of professional work. *Communications of the ACM*, 63(4):25–27, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Neville-Neil:2020:MT

[72] George V. Neville-Neil. Master of tickets. *Communications of the ACM*, 63(4):28–29, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Banga:2020:WCH

[73] Gaurav Banga. Why is cybersecurity not a human-scale problem anymore? *Communications of the ACM*, 63(4):30–34, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Girouard:2020:OFS

[74] Audrey Girouard, Jon E. Froehlich, Regan L. Mandryk, and Mark Hancock. Organizing family support services at ACM conferences. *Communications of the ACM*, 63(4):35–38, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Grochow:2020:TAA

[75] Jerrold M. Grochow. A taxonomy of automated assistants. *Communications of the ACM*, 63(4):39–41, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Moon:2020:W

[76] Sue Moon, Ann Nicholson, and Abhik Roychoudhury. Welcome. *Communications of the ACM*, 63(4):44–46, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kawarabayashi:2020:NSM

[77] Ken-Ichi Kawarabayashi. The NII Shonan meeting in Japan. *Communications of the ACM*, 63(4):48–49, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cunningham:2020:CCH

[78] Sally Jo Cunningham, Fariz Darari, Adila Krisnadhi, and Annika Hinze. Capturing cultural heritage in East Asia and Oceania. *Communications of the ACM*, 63(4):50–52, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Rudolph:2020:CPI

[79] Carsten Rudolph, Sadie Creese, and Sameer Sharma. Cybersecurity in Pacific Island nations. *Communications of the ACM*, 63(4):53–54, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Teh:2020:SCE

[80] Karen Teh, Vivy Suhendra, Soon Chia Lim, and Abhik Roychoudhury. Singapore's cybersecurity ecosystem. *Communications of the ACM*, 63(4):55–57, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Tat:2020:ISD

[81] Thomas Ho Chee Tat and George Loh Chee Ping. Innovating services and digital economy in Singapore. *Communications of the ACM*, 63(4):58–59, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Teddy-Ang:2020:ASE

[82] Sintia Teddy-Ang and Abigail Toh. AI Singapore: Empowering a smart nation. *Communications of the ACM*, 63(4):60–63, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Yan:2020:DAL

[83] Lam Kwok Yan and Campbell Wilson. Developing AI for law enforcement in Singapore and Australia. *Communications of the ACM*, 63(4):62, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bain:2020:DHA

[84] Chris Bain and Abraham Oshni Alvandi. Digital healthcare across Oceania. *Communications of the ACM*, 63(4):64–67, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cha:2020:DFN

[85] Meeyoung Cha, Wei Gao, and Cheng-Te Li. Detecting fake news in social media: An Asia–Pacific perspective. *Communications of the ACM*, 63(4):68–71, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Heiser:2020:SAR

[86] Gernot Heiser, Gerwin Klein, and June Andronick. SeL4 in Australia: From research to real-world trustworthy systems. *Communications of the ACM*, 63(4):72–75, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Phan:2020:ASR

[87] Raphaël C. W. Phan, Masayuki Abe, Lynn Batten, Jung Hee Cheon, Ed Dawson, Steven Galbraith, Jian Guo, Lucas Hui, Kwangjo Kim, Xuejia Lai, Dong Hoon Lee, Mitsuru Matsui, Tsutomu Matsumoto, Shiho Moriai, Phong Nguyen, Dingyi Pei,

Duong Hieu Phan, Josef Pieprzyk, Huaxiong Wang, Hank Wolfe, Duncan Wong, Tzong-Chen Wu, Bo-Yin Yang, Siu-Ming Yiu, Yu Yu, and Jianying Zhou. Advances in security research in the Asiacrypt region. *Communications of the ACM*, 63(4):76–81, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kim:2020:CTK

[88] Dong Ku Kim, Hyeonwoo Lee, Seong-Choon Lee, and Sunwoo Lee. 5G commercialization and trials in Korea. *Communications of the ACM*, 63(4):82–85, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cha:2020:ASI

[89] Sang Kil Cha and Zhenkai Liang. Asia's surging interest in binary analysis. *Communications of the ACM*, 63(4):86–88, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Maguire:2020:MHC

[90] Laura M. D. Maguire. Managing the hidden costs of coordination. *Communications of the ACM*, 63(4):90–96, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Grayson:2020:CWH

[91] Marisa R. Grayson. Cognitive work of hypothesis exploration during anomaly response. *Communications of the ACM*, 63(4):97–103, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Woods:2020:CWM

[92] Daniel W. Woods and Tyler Moore. Cyber warranties: Market fix or marketing trick? *Communications of the ACM*, 63(4):104–107, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bruderer:2020:AM

[93] Herbert Bruderer. The Antikythera mechanism. *Communications of the ACM*, 63(4):108–115, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Procaccia:2020:TPA

[94] Ariel D. Procaccia. Technical perspective: an answer to fair division's most enigmatic question. *Communications of the ACM*, 63(4):118, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Aziz:2020:BEF

[95] Haris Aziz and Simon Mackenzie. A bounded and envy-free cake cutting algorithm. *Communications of the ACM*, 63(4):119–126, April 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Pancake:2020:PHA

[96] Cherri M. Pancake. From the President: How ACM is adapting in this period of global uncertainties. *Communications of the ACM*, 63(5):5, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3392777`.

Tims:2020:DPC

[97] Jodi Tims. Departments: Partnerships can help drive gender equality. *Communications of the ACM*, 63(5):7, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3388983.

Vardi:2020:DEV

[98] Moshe Y. Vardi. Departments: Efficiency vs. resilience: what COVID-19 teaches computing. *Communications of the ACM*, 63(5):9, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3388890.

Segal:2020:AEA

[99] Gerald Segal. ACM's election: ACM's 2020 general election. *Communications of the ACM*, 63(5):11–21, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386158.

Chien:2020:DLN

[100] Andrew A. Chien. Departments: Launching a new feature in *Communications*. *Communications of the ACM*, 63(5):22, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3391913.

Canedo:2020:DAA

[101] Arquimedes Canedo. Departments: Automating automation: CS at the heart of the manufacturing economy. *Communications of the ACM*, 63(5):23, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3391911.

Guzdial:2020:TCH

[102] Mark Guzdial and Jiajie Zhang. Teaching CS humbly, and watching the AI revolution. *Communications of the ACM*, 63(5):24–25, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386312.

Davidson:2020:DAP

[103] Jack W. Davidson, Joseph A. Konstan, and Scott E. Delman. Departments: ACM publications finances. *Communications of the ACM*, 63(5):53–57, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3389687.

Shasha:2020:LBO

[104] Dennis Shasha. Last byte: Optimal chimes. *Communications of the ACM*, 63(5):112, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386912.

Monroe:2020:NPB

[105] Don Monroe. News: a proof from 'the book'. *Communications of the ACM*, 63(5):27–29, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386366.

Greengard:2020:NWR

[106] Samuel Greengard. News: Will RISC-V revolutionize computing? *Communications of the ACM*, 63(5):30–32, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3386377`.

Kirkpatrick:2020:NDM

[107] Keith Kirkpatrick. News: Deceiving the masses on social media. *Communications of the ACM*, 63(5):33–35, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3386375`.

Hemphill:2020:LTW

[108] C. Scott Hemphill. Law and technology: What role for antitrust in regulating platforms? *Communications of the ACM*, 63(5):36–38, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3386906`.

Shostack:2020:PSS

[109] Adam Shostack and Mary Ellen Zurko. Privacy and security: Secure development tools and techniques need more research that will increase their impact and effectiveness in practice. *Communications of the ACM*, 63(5):39–41, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3386908`.

Tissenbaum:2020:EVK

[110] Mike Tissenbaum and Anne Ottenbreit-Leftwich. Education: a vision of K–12 computer science education for 2030. *Communications of the ACM*, 63(5):42–44, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3386910`.

Hertzmann:2020:VCD

[111] Aaron Hertzmann. Viewpoint: Computers do not make art, people do. *Communications of the ACM*, 63(5):45–48, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3347092`.

Newport:2020:VWT

[112] Cal Newport. Viewpoint: When technology goes awry. *Communications of the ACM*, 63(5):49–52, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3391975`.

Reed:2020:BFI

[113] J. Paul Reed. Beyond the 'fix-it' treadmill. *Communications of the ACM*, 63(5):58–63, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3380322`.

Woods:2020:RCR

[114] David D. Woods and John Allspaw. Revealing the critical role of human performance in software. *Communications of the ACM*, 63(5):64–67, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3380468`.

Wicker:2020:RPY

[115] Stephen B. Wicker and Dipayan Ghosh. Reading in the panopticon — your Kindle may be spying on you, but you can't be sure. *Communications of the ACM*, 63(5):68–73, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376899.

Mattauch:2020:BAD

[116] Sandra Mattauch, Katja Lohmann, Frank Hannig, Daniel Lohmann, and Jürgen Teich. A bibliometric approach for detecting the gender gap in computer science. *Communications of the ACM*, 63(5):74–80, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376901.

Chouldechova:2020:SFF

[117] Alexandra Chouldechova and Aaron Roth. A snapshot of the frontiers of fairness in machine learning. *Communications of the ACM*, 63(5):82–89, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376898.

Attiya:2020:I

[118] Hagit Attiya and Sergio Rajsbaum. Indistinguishability. *Communications of the ACM*, 63(5):90–99, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376902.

Voelker:2020:FLT

[119] Geoffrey M. Voelker. Fake 'likes' and targeting collusion networks: technical perspective. *Communications of the ACM*, 63(5):102, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3387722.

Farooqi:2020:MMO

[120] Shehroze Farooqi, Fareed Zaffar, Nektarios Leontiadis, and Zubair Shafiq. Measuring and mitigating OAuth access token abuse by collusion networks. *Communications of the ACM*, 63(5):103–111, May 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3387720.

Chien:2020:ELW

[121] Andrew A. Chien. Editor's letter: What do DDT and computing have in common? *Communications of the ACM*, 63(6):5–6, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3397339.

Staff:2020:LES

[122] CACM Staff. Letters to the editor: Safety proposal points in same direction. *Communications of the ACM*, 63(6):6, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3397169.

Cerf:2020:CIC

[123] Vinton G. Cerf. Cerf's up: Implications of the COVID-19 pandemic. *Communications of the ACM*, 63(6):7, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3397262.

DeFranco:2020:DPI

[124] Terrence DeFranco and Jeremy Roschelle. Detecting/preventing infections, and moving instruction online. *Communications of the ACM*, 63(6):8–9, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3392370.

Savage:2020:NAS

[125] Neil Savage. News: an animating spirit. *Communications of the ACM*, 63(6):10–12, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3392520.

Edwards:2020:NLU

[126] Chris Edwards. News: Leveraging unlabeled data. *Communications of the ACM*, 63(6):13–14, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3392496.

Savage:2020:NST

[127] Neil Savage. News: Seeing through walls. *Communications of the ACM*, 63(6):15–16, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3392516.

Shein:2020:NHA

[128] Esther Shein. News: Hiring from the autism spectrum. *Communications of the ACM*, 63(6):17–19, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3392509.

Bolton:2020:IRH

[129] Connor Bolton, Kevin Fu, Josiah Hester, and Jun Han. Inside risks: How to curtail oversensing in the home. *Communications of the ACM*, 63(6):20–24, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3396261.

Neville-Neil:2020:KVK

[130] George V. Neville-Neil. Kode Vicious: Kode Vicious plays in traffic. *Communications of the ACM*, 63(6):25–26, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3396263.

Denning:2020:PIT

[131] Peter J. Denning and Ted G. Lewis. The profession of IT: Technology adoption. *Communications of the ACM*, 63(6):27–29, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3396265.

Siegmund:2020:VSP

[132] Janet Siegmund, Norman Peitek, André Brechmann, Chris Parnin, and Sven Apel. Viewpoint: Studying programming in the neuroage: just

a crazy idea? *Communications of the ACM*, 63(6):30–34, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3347093.

Morris:2020:VAA

[133] Meredith Ringel Morris. Viewpoint: AI and accessibility. *Communications of the ACM*, 63(6):35–37, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3356727.

Frazelle:2020:CM

[134] Jessie Frazelle. Commit to memory. *Communications of the ACM*, 63(6):38–41, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386522.

Limoncelli:2020:CUN

[135] Thomas A. Limoncelli. Communicate using the numbers 1, 2, 3, and more. *Communications of the ACM*, 63(6):42–44, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386267.

Lipp:2020:MRK

[136] Moritz Lipp, Michael Schwarz, Daniel Gruss, Thomas Prescher, Werner Haas, Jann Horn, Stefan Mangard, Paul Kocher, Daniel Genkin, Yuval Yarom, Mike Hamburg, and Raoul Strackx. Meltdown: reading kernel memory from user space. *Communications of the ACM*, 63(6):46–56, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3357033.

Borning:2020:IMI

[137] Alan Borning, Batya Friedman, and Nick Logler. The 'invisible' materiality of information technology. *Communications of the ACM*, 63(6):57–64, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3360647.

Smith:2020:CWR

[138] Noah A. Smith. Contextual word representations: putting words into computers. *Communications of the ACM*, 63(6):66–74, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3347145.

Muhlhauser:2020:SLP

[139] Max Mühlhäuser, Christian Meurisch, Michael Stein, Jörg Daubert, Julius Von Willich, Jan Riemann, and Lin Wang. Street lamps as a platform. *Communications of the ACM*, 63(6):75–83, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3376900.

Blum:2020:ASL

[140] Avrim Blum. Algorithm selection as a learning problem: technical perspective. *Communications of the ACM*, 63(6):86, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3394623.

Gupta:2020:DDA

[141] Rishi Gupta and Tim Roughgarden. Data-driven algorithm design. *Communications of the ACM*, 63(6):87–94, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3394625.

Hoffmann:2020:LBA

[142] Leah Hoffmann. Last byte: Attaining the third dimension. *Communications of the ACM*, 63(6):96–ff, June 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3392697.

Vardi:2020:DCL

[143] Moshe Y. Vardi. Departments: a computational lens on economics. *Communications of the ACM*, 63(7):5, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3402561.

Ozawa:2020:DCY

[144] Yosuke Ozawa. Departments: Challenge yourself by reaching for the highest bar. *Communications of the ACM*, 63(7):7, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3399746.

Staff:2020:LECb

[145] CACM Staff. Letters to the editor: Computing's role in climate warming. *Communications of the ACM*, 63(7):9, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3402933.

Arquilla:2020:TDL

[146] John Arquilla and Mark Guzdial. Transitioning to distance learning and virtual conferencing. *Communications of the ACM*, 63(7):10–11, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3398386.

Mone:2020:NQT

[147] Gregory Mone. News: The quantum threat. *Communications of the ACM*, 63(7):12–14, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3398388.

Savage:2020:NYW

[148] Neil Savage. News: Your wish is my CMD. *Communications of the ACM*, 63(7):15–16, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3398392.

Kirkpatrick:2020:NRE

[149] Keith Kirkpatrick. News: Reducing and eliminating e-waste. *Communications of the ACM*, 63(7):17–19, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3398390.

Samuelson:2020:LSA

[150] Pamela Samuelson. Legally speaking: AI authorship? *Communications of the ACM*, 63(7):20–22, July

2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3401718.

VanAlstyne:2020:EBDa

[151] Marshall W. Van Alstyne. Economic and business dimensions: Proposal: a market for truth to address false ads on social media. *Communications of the ACM*, 63(7):23–25, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3401724.

Pine:2020:CEI

[152] Kathleen H. Pine, Margaret M. Hinrichs, Jieshu Wang, Dana Lewis, and Erik Johnston. Computing ethics: For impactful community engagement: check your role. *Communications of the ACM*, 63(7):26–28, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3401720.

Stanger:2020:VCV

[153] Allison Stanger. Viewpoint: Consumers vs. citizens in democracy's public sphere. *Communications of the ACM*, 63(7):29–31, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3359553.

Subirana:2020:VCW

[154] Brian Subirana. Viewpoint: Call for a wake standard for artificial intelligence. *Communications of the ACM*, 63(7):32–35, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3402193.

Helland:2020:BPB

[155] Pat Helland. The best place to build a subway. *Communications of the ACM*, 63(7):36–39, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386269.

Clark:2020:DS

[156] Jeremy Clark, Didem Demirag, and Seyedehmahsa Moosavi. Demystifying stablecoins. *Communications of the ACM*, 63(7):40–46, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386275.

Dally:2020:DSH

[157] William J. Dally, Yatish Turakhia, and Song Han. Domain-specific hardware accelerators. *Communications of the ACM*, 63(7):48–57, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3361682.

Stodden:2020:DSL

[158] Victoria Stodden. The data science life cycle: a disciplined approach to advancing data science as a science. *Communications of the ACM*, 63(7):58–66, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3360646.

Jouppi:2020:DSS

[159] Norman P. Jouppi, Doe Hyun Yoon, George Kurian, Sheng Li, Nishant Patil, James Laudon, Cliff Young, and David Patterson. A domain-specific supercomputer for training deep neural networks. *Communications of the ACM*, 63(7):67–78, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3360307`.

Catalini:2020:SSE

[160] Christian Catalini and Joshua S. Gans. Some simple economics of the blockchain. *Communications of the ACM*, 63(7):80–90, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3359552`.

Hill:2020:WCC

[161] Mark D. Hill. Why 'correct' computers can leak your information: technical perspective. *Communications of the ACM*, 63(7):92, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3399740`.

Kocher:2020:SAE

[162] Paul Kocher, Jann Horn, Anders Fogh, Daniel Genkin, Daniel Gruss, Werner Haas, Mike Hamburg, Moritz Lipp, Stefan Mangard, Thomas Prescher, Michael Schwarz, and Yuval Yarom. Spectre attacks: exploiting speculative execution. *Communications of the ACM*, 63(7):93–101, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3399742`.

Ranganathan:2020:ACS

[163] Parthasarathy Ranganathan. ASIC clouds: specializing the datacenter: technical perspective. *Communications of the ACM*, 63(7):102, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3399738`.

Taylor:2020:ACS

[164] Michael Bedford Taylor, Luis Vega, Moein Khazraee, Ikuo Magaki, Scott Davidson, and Dustin Richmond. ASIC clouds: specializing the datacenter for planet-scale applications. *Communications of the ACM*, 63(7):103–109, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3399734`.

Shasha:2020:LBSb

[165] Dennis Shasha. Last byte: Strategic paddling. *Communications of the ACM*, 63(7):112–ff, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3401749`.

Cerf:2020:CIM

[166] Vinton G. Cerf. Cerf's up: On the Internet of Medical Things. *Communications of the ACM*, 63(8):5, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3406779`.

Arquilla:2020:HWW

[167] John Arquilla and Jeremy Roschelle. How WWII was won, and why CS students feel unappreciated. *Communications of the ACM*, 63(8):6–7, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3403958`.

Greengard:2020:NNC

[168] Samuel Greengard. News: Neuromorphic chips take shape. *Communications of the ACM*, 63(8):9–11, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3403960`.

Monroe:2020:NDH

[169] Don Monroe. News: Digital humans on the big screen. *Communications of the ACM*, 63(8):12–14, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3403972`.

Kugler:2020:NWA

[170] Logan Kugler. News: Are we addicted to technology? *Communications of the ACM*, 63(8):15–16, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3403966`.

Fernandez:2020:BPT

[171] Jannie Fernandez and JeffriAnne Wilder. Broadening participation: TECHNOLOchicas: a critical intersectional approach shaping the color of our future. *Communications of the ACM*, 63(8):18–21, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3408052`.

Neville-Neil:2020:KVB

[172] George V. Neville-Neil. Kode vicious: Broken hearts and coffee mugs. *Communications of the ACM*, 63(8):22–23, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3408054`.

Krishnamurthi:2020:EDC

[173] Shriram Krishnamurthi and Kathi Fisler. Education: Data-centricity: a challenge and opportunity for computing education. *Communications of the ACM*, 63(8):24–26, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3408056`.

Galil:2020:PSO

[174] Zvi Galil. Privacy and security: OMSCS: the revolution will be digitized. *Communications of the ACM*, 63(8):27–29, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3366191`.

Borgman:2020:VTP

[175] Christine L. Borgman, Michael J. Scroggins, Irene V. Pasquetto, R. Stuart Geiger, Bernadette M. Boscoe, Peter T. Darch, Charlotte Cabasse-Mazel, Cheryl Thompson, and Milena S. Golshan. Viewpoint: Thorny problems in data (-intensive) science. *Communications of the ACM*, 63(8):30–32, July

2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3408047.

Staff:2020:CFR

[176] CACM Staff. To catch a failure: the record-and-replay approach to debugging. *Communications of the ACM*, 63(8):34–40, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386277.

Frazelle:2020:PP

[177] Jessie Frazelle. Power to the people. *Communications of the ACM*, 63(8): 41–45, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3397888.

Maiden:2020:DCS

[178] Neil Maiden, Konstantinos Zachos, Amanda Brown, Dimitris Apostolou, Balder Holm, Lars Nyre, Aleksander Tonheim, and Arend van den Beld. Digital creativity support for original journalism. *Communications of the ACM*, 63(8):46–53, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3386526.

Connolly:2020:WCB

[179] Randy Connolly. Why computing belongs within the social sciences. *Communications of the ACM*, 63(8):54–59, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3383444.

Payton:2020:EUC

[180] Fay Cobb Payton and Alexa Busch. Examining undergraduate computer science participation in North Carolina. *Communications of the ACM*, 63(8): 60–68, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3372122.

Cockburn:2020:TRC

[181] Andy Cockburn, Pierre Dragicevic, Lonni Besançon, and Carl Gutwin. Threats of a replication crisis in empirical computer science. *Communications of the ACM*, 63(8):70–79, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3360311.

Tan:2020:EMM

[182] Wang-Chiew Tan. Entity matching with Magellan: technical perspective. *Communications of the ACM*, 63(8):82, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3405464.

Doan:2020:MTB

[183] AnHai Doan, Pradap Konda, Paul Suganthan G. C., Yash Govind, Derek Paulsen, Kaushik Chandrasekhar, Philip Martinkus, and Matthew Christie. Magellan: toward building ecosystems of entity matching solutions. *Communications of the ACM*, 63(8):83–91, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3405476.

Papakonstantinou:2020:SLA

[184] Yannis Papakonstantinou. Supporting linear algebra operations in SQL: technical perspective. *Communications of the ACM*, 63(8):92, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3405468.

Luo:2020:SLA

[185] Shangyu Luo, Zekai J. Gao, Michael Gubanov, Luis L. Perez, Dimitrije Jankov, and Christopher Jermaine. Scalable linear algebra on a relational database system. *Communications of the ACM*, 63(8):93–101, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3405470.

Hoffmann:2020:LBS

[186] Leah Hoffmann. Last byte: Seeing light at the end of the cybersecurity tunnel. *Communications of the ACM*, 63(8): 104–ff, July 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3403976.

Vardi:2020:DWA

[187] Moshe Y. Vardi. Departments: Where have all the domestic graduate students gone? *Communications of the ACM*, 63(9):5, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3410470.

Staff:2020:LEL

[188] CACM Staff. Letters to the editor: Lost in translation. *Communications of the ACM*, 63(9):9–10, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3411279.

Hazzan:2020:TCU

[189] Orit Hazzan. Teaching CS undergrads online to work with others effectively. *Communications of the ACM*, 63(9):12–13, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3409780.

Mone:2020:NA

[190] Gregory Mone. News: It's alive! *Communications of the ACM*, 63(9):15–17, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3409800.

Greengard:2020:NAE

[191] Samuel Greengard. News: AI on edge. *Communications of the ACM*, 63(9):18–20, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3409977.

Marks:2020:NVC

[192] Paul Marks. News: Virtual collaboration in the age of the coronavirus. *Communications of the ACM*, 63(9):21–23, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3409803.

Kaminski:2020:LTR

[193] Margot Kaminski. Law and technology: a recent renaissance in privacy

law. *Communications of the ACM*, 63(9):24–27, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3411049`.

Lala:2020:SAV

[194] Jaynarayan H. Lala, Carl E. Landwehr, and John F. Meyer. Security: Autonomous vehicle safety: lessons from aviation. *Communications of the ACM*, 63(9):28–31, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3411053`.

Denning:2020:PIA

[195] Peter J. Denning. The profession of IT: Avalanches make us all innovators. *Communications of the ACM*, 63(9):32–34, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3411055`.

Schryen:2020:VIM

[196] Guido Schryen. Viewpoint: Integrating management science into the HPC research ecosystem. *Communications of the ACM*, 63(9):35–37, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3377477`.

Bruckman:2020:VYT

[197] Amy Bruckman. Viewpoint: 'have you thought about…': talking about ethical implications of research. *Communications of the ACM*, 63(9):38–40, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3377405`.

Narayanan:2020:DPP

[198] Arvind Narayanan, Arunesh Mathur, Marshini Chetty, and Mihir Kshirsagar. Dark patterns: past, present, and future. *Communications of the ACM*, 63(9):42–47, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3397884`.

Kelly:2020:PMP

[199] Terence Kelly. Is persistent memory persistent? *Communications of the ACM*, 63(9):48–54, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3397882`.

Burke:2020:BAE

[200] Quinn Burke and Cinamon Sunrise Bailey. Becoming an 'adaptive' expert. *Communications of the ACM*, 63(9):56–64, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3366171`.

Burton-Jones:2020:ISA

[201] Andrew Burton-Jones, Alicia Gilchrist, Peter Green, and Michael Draheim. Improving social alignment during digital transformation. *Communications of the ACM*, 63(9):65–71, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3410429`.

Hellerstein:2020:KCW

[202] Joseph M. Hellerstein and Peter Alvaro. Keeping CALM: when distributed consistency is easy. *Communications of the ACM*, 63(9):72–81, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3369736.

Shahabi:2020:CVL

[203] Cyrus Shahabi. Computing the value of location data: technical perspective. *Communications of the ACM*, 63(9):84, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3410385.

Aly:2020:CVS

[204] Heba Aly, John Krumm, Gireeja Ranade, and Eric Horvitz. Computing value of spatiotemporal information. *Communications of the ACM*, 63(9):85–92, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3410387.

Shekhar:2020:PSC

[205] Shashi Shekhar. Progress in spatial computing for flood prediction: technical perspective. *Communications of the ACM*, 63(9):93, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3410410.

Lowe:2020:FRA

[206] Aaron Lowe, Pankaj K. Agarwal, and Mathias Rav. Flood-risk analysis on terrains. *Communications of the ACM*, 63(9):94–102, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3410413.

Clegg:2020:LBL

[207] Brian Clegg. Last byte: Little green message: a different kind of first-contact scenario. *Communications of the ACM*, 63(9):104–ff, August 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3409981.

Cerf:2020:CDD

[208] Vinton G. Cerf. Cerf's up: On digital diplomacy. *Communications of the ACM*, 63(10):5, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3418557.

Hill:2020:PCP

[209] Robin K. Hill. Protecting computers and people from viruses. *Communications of the ACM*, 63(10):8, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3415748.

Monroe:2020:NBB

[210] Don Monroe. News: Bouncing balls and quantum computing. *Communications of the ACM*, 63(10):10–12, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416076.

Edwards:2020:NTS

[211] Chris Edwards. News: Thwarting side-channel attacks. *Communications of the ACM*, 63(10):13–14, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416080`.

Kirkpatrick:2020:NWA

[212] Keith Kirkpatrick. News: Who has access to your smartphone data? *Communications of the ACM*, 63(10):15–17, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416078`.

Garfinkel:2020:NFA

[213] Simson Garfinkel and Eugene H. Spafford. News: Fran Allen: 1932–2020. *Communications of the ACM*, 63 (10):18–19, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418560`.

Cusumano:2020:TSMb

[214] Michael A. Cusumano. Technology strategy and management: Self-driving vehicle technology: progress and promises. *Communications of the ACM*, 63(10):20–22, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3417074`.

Neumann:2020:IRH

[215] Peter G. Neumann. Inside risks: a holistic view of future risks. *Communications of the ACM*, 63(10):23–27, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3417095`.

Neville-Neil:2020:KVS

[216] George V. Neville-Neil. Kode vicious: Sanity vs. invisible markings. *Communications of the ACM*, 63(10): 28–29, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3417099`.

Snodgrass:2020:VWN

[217] Richard T. Snodgrass and Marianne Winslett. Viewpoint: We need to automate the declaration of conflicts of interest. *Communications of the ACM*, 63(10):30–32, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3414556`.

MacCormick:2020:VUC

[218] John MacCormick. Viewpoint: Using computer programs and search problems for teaching theory of computation. *Communications of the ACM*, 63 (10):33–35, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3382036`.

Mencer:2020:HSF

[219] Oskar Mencer, Dennis Allison, Elad Blatt, Mark Cummings, Michael J. Flynn, Jerry Harris, Carl Hewitt, Quinn Jacobson, Maysam Lavasani, Mohsen Moazami, Hal Murray, Masoud Nikravesh, Andreas Nowatzyk, Mark Shand, and Shahram Shirazi.

The history, status, and future of FPGAs. *Communications of the ACM*, 63 (10):36–39, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3410669`.

Chan:2020:DIG

[220] Charisma Chan and Beth Cooper. Debugging incidents in Google's distributed systems. *Communications of the ACM*, 63(10):40–46, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3397880`.

Galup:2020:WDA

[221] Stuart Galup, Ronald Dattero, and Jing Quan. What do agile, lean, and ITIL mean to DevOps? *Communications of the ACM*, 63(10):48–53, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3372114`.

Wilhelm:2020:RTS

[222] Reinhard Wilhelm. Real time spent on real time. *Communications of the ACM*, 63(10):54–60, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3375545`.

Bohme:2020:RVD

[223] Rainer Böhme, Lisa Eckey, Tyler Moore, Neha Narula, Tim Ruffing, and Aviv Zohar. Responsible vulnerability disclosure in cryptocurrencies. *Communications of the ACM*, 63 (10):62–71, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3372115`.

Cresci:2020:DSB

[224] Stefano Cresci. A decade of social bot detection. *Communications of the ACM*, 63(10):72–83, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3409116`.

Livshits:2020:ASC

[225] Benjamin Livshits. Analyzing smart contracts with MadMax: technical perspective. *Communications of the ACM*, 63(10):86, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416259`.

Grech:2020:MAG

[226] Neville Grech, Michael Kong, Anton Jurisevic, Lexi Brent, Bernhard Scholz, and Yannis Smaragdakis. MadMax: analyzing the out-of-gas world of smart contracts. *Communications of the ACM*, 63(10):87–95, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416262`.

Beame:2020:TPO

[227] Paul Beame. Two for the price of one: technical perspective. *Communications of the ACM*, 63(10):96, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416264`.

Farhadi:2020:LBE

[228] Alireza Farhadi, Mohammad Taghi Hajiaghayi, Kasper Green Larsen, and Elaine Shi. Lower bounds for external memory integer sorting via network coding. *Communications of the ACM*, 63(10):97–105, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416268`.

Shasha:2020:LBP

[229] Dennis Shasha. Last byte: Privacy-preserving polling. *Communications of the ACM*, 63(10):108–ff, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416266`.

Rohlfing:2020:CPC

[230] Celeste M. Rohlfing. Career paths in computing: a career unfolds in phases. *Communications of the ACM*, 63(11):7, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3422082`.

Staff:2020:LEW

[231] CACM Staff. Letters to the editor: Weighing grad school payback. *Communications of the ACM*, 63(11):8–9, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3425745`.

Patterson:2020:BBI

[232] David Patterson and Yegor Bugayenko. BLOG@CACM: Bringing industry back to conferences, and paying for results. *Communications of the ACM*, 63(11):12–13, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3422628`.

Monroe:2020:NSA

[233] Don Monroe. News: Seeking artificial common sense. *Communications of the ACM*, 63(11):14–16, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3422588`.

Kirkpatrick:2020:NNL

[234] Keith Kirkpatrick. News: Natural language misunderstanding. *Communications of the ACM*, 63(11):17–18, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3422600`.

Greengard:2020:NTN

[235] Samuel Greengard. News: Terahertz networks move closer to reality. *Communications of the ACM*, 63 (11):19–21, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3422630`.

Cranor:2020:PDC

[236] Lorrie Faith Cranor. Privacy: Digital contact tracing may protect privacy, but it is unlikely to stop the pandemic. *Communications of the ACM*, 63(11):22–24, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3423993`.

Samuelson:2020:LSC

[237] Pamela Samuelson. Legally speaking: Copyright's online service providers safe harbors under siege. *Communications of the ACM*, 63(11):25–27, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3423995`.

VanAlstyne:2020:EBDb

[238] Marshall W. Van Alstyne and Alisa Lenart. Economic and business dimensions: Using data and respecting users. *Communications of the ACM*, 63(11):28–30, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3423998`.

Ko:2020:EIT

[239] Amy J. Ko, Alannah Oleson, Neil Ryan, Yim Register, Benjamin Xie, Mina Tari, Matthew J. Davidson, Stefania Druga, and Dastyni Loksa. Education: It is time for more critical CS education. *Communications of the ACM*, 63(11):31–33, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3424000`.

Ronen:2020:VWS

[240] Boaz Ronen and Alex Coman. Viewpoint: Where should your IT constraint be?: The case of the financial services industry. *Communications of the ACM*, 63(11):34–37, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3382081`.

Visser:2020:VRC

[241] Jacky Visser, John Lawrence, and Chris Reed. Viewpoint: Reason-checking fake news. *Communications of the ACM*, 63(11):38–40, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3397189`.

Almeida:2020:LAR

[242] Virgilio Almeida, Gonzalo Navarro, and Sergio Rajsbaum. Latin America regional special section: Welcome. *Communications of the ACM*, 63(11):42–44, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416955`.

DeFreitas:2020:LAR

[243] Rosiane De Freitas, João M. B. Cavalcanti, Sergio Cleger, Niro Higuchi, Carlos Henrique Celes, and Adriano Lima. Latin America regional special section: Hot topics: Estimating Amazon carbon stock using AI-based remote sensing. *Communications of the ACM*, 63 (11):46–48, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416957`.

Hevia:2020:LAR

[244] Alejandro Hevia and Camilo Gómez. Latin America regional special section: Hot topics: Why me?: shedding light on random processes via randomness beacons. *Communications of the ACM*, 63(11):49–50, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416959`.

Kon:2020:LAR

[245] Fabio Kon, Kelly Braghetto, Eduardo Z. Santana, Roberto Speicys, and Jorge Guerra Guerra. Latin America regional special section: Hot topics: Toward smart and sustainable cities. *Communications of the ACM*, 63(11):51–52, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416961.

Milano:2020:LAR

[246] Gastón Milano, Diego Vallespir, and Alfredo Viola. Latin America regional special section: Hot topics: A technological and innovative approach to COVID-19 in Uruguay. *Communications of the ACM*, 63(11):53–55, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3422826.

Meira:2020:LAR

[247] Wagner Meira, Antonio L. P. Ribeiro, Derick M. Oliveira, and Antonio H. Ribeiro. Latin America regional special section: Hot topics: Contextualized interpretable machine learning for medical diagnosis. *Communications of the ACM*, 63(11):56–58, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416965.

Arce-Lopera:2020:LAR

[248] Carlos Arce-Lopera and Gerardo M. Sarria M. Latin America regional special section: Hot topics: Understanding salsa: how computing is defining Latin music. *Communications of the ACM*, 63(11):59–60, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416967.

Poblete:2020:LAR

[249] Barbara Poblete and Jorge Pérez. Latin America regional special section: Hot topics: Minding the AI gap in LATAM. *Communications of the ACM*, 63(11):61–63, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416969.

Arroyuelo:2020:LAR

[250] Diego Arroyuelo, José Fuentes-Sepülveda, and Diego Seco. Latin America regional special section: Hot topics: Three success stories about compact data structures. *Communications of the ACM*, 63(11):64–65, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416971.

Gitler:2020:LAR

[251] Isidoro Gitler, Antônio Tadeu A. Gomes, and Sergio Nesmachnow. Latin America regional special section: Big trends: The Latin American supercomputing ecosystem for science. *Communications of the ACM*, 63(11):66–71, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3419977.

Tentori:2020:LAR

[252] Monica Tentori, Artur Ziviani, Débora C. Muchaluat-Saade, and Jesus Favela. Latin America regional special section:

Big trends: Digital healthcare in Latin America: the case of Brazil and Mexico. *Communications of the ACM*, 63 (11):72–77, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3423923.

Arenas:2020:LAR

[253] Marcelo Arenas and Pablo Barceló. Latin America regional special section: Big trends: Chile's new interdisciplinary institute for foundational research on data. *Communications of the ACM*, 63(11):78–83, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416975.

Zelaya:2020:LAR

[254] Gerardo Torres Zelaya. Latin America regional special section: Big trends: A panorama of computing in central America and the Caribbean. *Communications of the ACM*, 63(11):84–89, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3419979.

Delrieux:2020:LAR

[255] Claudio Delrieux, Virginia Ballarín, Cristian García Bauza, and Mario A. López. Latin America regional special section: Big trends: Imaging sciences R&D laboratories in Argentina. *Communications of the ACM*, 63(11):90–95, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416977.

Duarte:2020:LAR

[256] Elias P. Duarte, Raimundo J. A. Macêdo, Eliane Martins, and Sergio Rajsbaum. Latin America regional special section: Big trends: A tour of dependable computing research in Latin America. *Communications of the ACM*, 63(11):96–101, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3416979.

Kiwi:2020:LAR

[257] Marcos Kiwi, Yoshiharu Kohayakawa, Sergio Rajsbaum, Francisco Jose Rodríguez-Henríquez, Jayme Luiz Szwarcfiter, and Alfredo Viola. Latin America regional special section: Big trends: A perspective on theoretical computer science in Latin America. *Communications of the ACM*, 63 (11):102–107, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3419975.

Limoncelli:2020:FNR

[258] Thomas A. Limoncelli. Five nonobvious remote work techniques. *Communications of the ACM*, 63(11):108–110, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3410627.

Helland:2020:DOV

[259] Pat Helland. Data on the outside versus data on the inside. *Communications of the ACM*, 63(11):111–118, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3410623.

Resnick:2020:CC

[260] Mitchel Resnick and Natalie Rusk. Coding at a crossroads. *Communications of the ACM*, 63(11):120–127, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3375546.

Grohe:2020:GIP

[261] Martin Grohe and Pascal Schweitzer. The graph isomorphism problem. *Communications of the ACM*, 63(11):128–134, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3372123.

Efros:2020:TPW

[262] Alexei A. Efros and Aaron Hertzmann. Technical perspective: When the adversary is your friend. *Communications of the ACM*, 63(11):138, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3422602.

Goodfellow:2020:GAN

[263] Ian Goodfellow, Jean Pouget-Abadie, Mehdi Mirza, Bing Xu, David Warde-Farley, Sherjil Ozair Aaron C. Courville, and Yoshua Bengio. Generative adversarial networks. *Communications of the ACM*, 63(11):139–144, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3422622.

Xu:2020:TPB

[264] Harry Xu. Technical perspective: BLeak: semantics-aware leak detection in the web. *Communications of the ACM*, 63(11):145, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3422590.

Vilk:2020:BAD

[265] John Vilk and Emery D. Berger. BLeak: automatically debugging memory leaks in web applications. *Communications of the ACM*, 63(11):146–153, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3422598.

Hoffmann:2020:LBT

[266] Leah Hoffmann. Last byte: Tackling the challenges of CS education. *Communications of the ACM*, 63(11):160–ff, October 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3422672.

Cerf:2020:CRR

[267] Vinton G. Cerf. Cerf's up: Repairability redux. *Communications of the ACM*, 63(12):5, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3429267.

Newborn:2020:PCA

[268] Monroe "Monty" Newborn. Pitting computers against each other ... in chess. *Communications of the ACM*, 63(12):6–7, December 2020. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3427786.

Savage:2020:NTC

[269] Neil Savage. News: Tracking COVID, discreetly. *Communications of the ACM*, 63(12):9–11, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3427933.

Shein:2020:NSR

[270] Esther Shein. News: Softening up robots. *Communications of the ACM*, 63(12):12–14, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3427942.

Kugler:2020:NTV

[271] Logan Kugler. News: Technologies for the visually impaired. *Communications of the ACM*, 63(12):15–17, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3427936.

Canca:2020:CEO

[272] Cansu Canca. Computing ethics: Operationalizing AI ethics principles. *Communications of the ACM*, 63(12):18–21, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3430368.

Adrion:2020:BPU

[273] W. Richards Adrion, Sarah T. Dunton, Barbara Ericson, Renee Fall, Carol Fletcher, and Mark Guzdial. Broadening participation: U.S. states must broaden participation while expanding access to computer science education. *Communications of the ACM*, 63(12):22–25, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3430375.

Denning:2020:PIN

[274] Peter J. Denning. The profession of IT: Navigating in real-time environments. *Communications of the ACM*, 63(12):26–28, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3430370.

Neville-Neil:2020:KVR

[275] George V. Neville-Neil. Kode vicious: Removing kode. *Communications of the ACM*, 63(12):29, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3430378.

OMara:2020:VSP

[276] Margaret O'Mara. Viewpoint: Silicon politics. *Communications of the ACM*, 63(12):30–32, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3431480.

Cheng:2020:VFL

[277] Yong Cheng, Yang Liu, Tianjian Chen, and Qiang Yang. Viewpoint: Federated learning for privacy-preserving AI. *Communications of the ACM*, 63(12):33–36, December 2020. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3387107`.

Frazelle:2020:LDB

[278] Jessie Frazelle. The life of a data byte. *Communications of the ACM*, 63 (12):38–45, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3410625`.

Jover:2020:SAS

[279] Roger Piqueras Jover. Security analysis of SMS as a second factor of authentication. *Communications of the ACM*, 63(12):46–52, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3424260`.

Schwartz:2020:GA

[280] Roy Schwartz, Jesse Dodge, Noah A. Smith, and Oren Etzioni. Green AI. *Communications of the ACM*, 63 (12):54–63, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3381831`.

Maasberg:2020:DTI

[281] Michele Maasberg, Craig Van Slyke, Selwyn Ellis, and Nicole Beebe. The dark triad and insider threats in cyber security. *Communications of the ACM*, 63(12):64–80, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3408864`.

Feamster:2020:MIS

[282] Nick Feamster and Jason Livingood. Measuring Internet speed: current challenges and future recommendations. *Communications of the ACM*, 63 (12):72–80, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3372135`.

Forsyth:2020:XNP

[283] David Alexander Forsyth. XNOR-networks — powerful but tricky: technical perspective. *Communications of the ACM*, 63(12):82, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3429950`.

Rastegari:2020:EAE

[284] Mohammad Rastegari, Vicente Ordonez, Joseph Redmon, and Ali Farhadi. Enabling AI at the edge with XNOR-networks. *Communications of the ACM*, 63(12):83–90, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3429945`.

Paradiso:2020:FLS

[285] Joseph A. Paradiso. The future of large-scale embedded sensing: technical perspective. *Communications of the ACM*, 63(12):91, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3429952`.

Arora:2020:SII

[286] Nivedita Arora, Thad Starner, and Gregory D. Abowd. SATURN: an introduction to the Internet of Materials. *Communications of the ACM*, 63

(12):92–99, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3429948.

Bainbridge:2020:LBW

[287] William Sims Bainbridge. Last byte: Walden Three. *Communications of the ACM*, 63(12):104–ff, December 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3427948.

Chien:2021:ELC

[288] Andrew A. Chien. Editor's letter: 2021: Computing's divided future. *Communications of the ACM*, 64(1): 5, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3439708.

Vardi:2021:DRC

[289] Moshe Y. Vardi. Departments: Reboot the computing-research publication systems. *Communications of the ACM*, 64(1):7, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3437991.

Crawford:2021:CPC

[290] Dona Crawford. Career paths in computing: a career fueled by HPC. *Communications of the ACM*, 64(1):9, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434141.

Guzdial:2021:TAR

[291] Mark Guzdial. Talking about race in CS education. *Communications of the ACM*, 64(1):10–11, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433921.

Greengard:2021:NGD

[292] Samuel Greengard. News: Geometric deep learning advances data science. *Communications of the ACM*, 64(1):13–15, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433951.

Monroe:2021:NFT

[293] Don Monroe. News: Fugaku takes the lead. *Communications of the ACM*, 64(1):16–18, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433954.

Edwards:2021:NCW

[294] Chris Edwards. News: Coalition of the willing takes aim at COVID-19. *Communications of the ACM*, 64(1):19–21, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433952.

Cusumano:2021:TSMa

[295] Michael A. Cusumano. Technology strategy and management: Boeing's 737 MAX: a failure of management, not just technology. *Communications of the ACM*, 64(1):22–25, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3436231.

Benzel:2021:SCR

[296] Terry Benzel. Security: Cybersecurity research for the future. *Communications of the ACM*, 64(1):26–28, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3436241`.

Klonick:2021:LTC

[297] Kate Klonick. Law and technology: Content moderation modulation. *Communications of the ACM*, 64(1):29–31, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3436247`.

Haigh:2021:HRI

[298] Thomas Haigh. Historical reflections: The immortal soul of an old machine. *Communications of the ACM*, 64(1):32–37, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3436249`.

Marcus:2021:VIA

[299] Gary Marcus and Ernest Davis. Viewpoint: Insights for AI from the human mind. *Communications of the ACM*, 64(1):38–41, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3392663`.

Turel:2021:VEU

[300] Ofir Turel and Christopher Ferguson. Viewpoint: Excessive use of technology: can tech providers be the culprits? *Communications of the ACM*, 64(1):42–44, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3392664`.

Vachon:2021:IEP

[301] Phil Vachon. The identity in everyone's pocket. *Communications of the ACM*, 64(1):46–55, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3424262`.

Levine:2021:C

[302] Edlyn V. Levine. The die is cast. *Communications of the ACM*, 64(1):56–60, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3424264`.

Cabanas:2021:DFU

[303] José González Cabañas, Ángel Cuevas, Aritz Arrate, and Rubén Cuevas. Does Facebook use sensitive data for advertising purposes? *Communications of the ACM*, 64(1):62–69, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3426361`.

Koutroumpis:2021:DII

[304] Pantelis Koutroumpis, Aija Leiponen, and Llewellyn D. W. Thomas. Digital instruments as invention machines. *Communications of the ACM*, 64(1):70–78, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3377476`.

Bozan:2021:HTI

[305] Karoly Bozan, Kalle Lyytinen, and Gregory M. Rose. How to transition incrementally to microservice architecture. *Communications of the ACM*, 64(1):79–85, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3378064.

Lindell:2021:SMC

[306] Yehuda Lindell. Secure multiparty computation. *Communications of the ACM*, 64(1):86–96, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3387108.

Wicker:2021:EZD

[307] Stephen B. Wicker. The ethics of zero-day exploits: the NSA meets the trolley car. *Communications of the ACM*, 64(1):97–103, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3393670.

Gottesman:2021:TPD

[308] Daniel Gottesman. Technical perspective: Deciphering errors to reduce the cost of quantum computation. *Communications of the ACM*, 64(1):105, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434157.

Fawzi:2021:COQ

[309] Omar Fawzi, Antoine Grospellier, and Anthony Leverrier. Constant overhead quantum fault tolerance with quantum expander codes. *Communications of the ACM*, 64(1):106–114, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434163.

Han:2021:TPS

[310] Richard Han. Technical perspective: SkyCore's architecture takes it to the 'edge'. *Communications of the ACM*, 64(1):115, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434151.

Moradi:2021:SMC

[311] Mehrdad Moradi, Karthikeyan Sundaresan, Eugene Chai, Sampath Rangarajan, and Z. Morley Mao. SkyCore: moving core to the edge for untethered and reliable UAV-based LTE networks. *Communications of the ACM*, 64(1):116–124, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434161.

Shasha:2021:LBSa

[312] Dennis Shasha. Last byte: Stay in balance. *Communications of the ACM*, 64(1):128, January 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434645.

Chien:2021:ELD

[313] Andrew A. Chien. Editor's letter: Driving the cloud to true zero carbon. *Communications of the ACM*, 64(2):5, February 2021. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3445037.

Cerf:2021:CHB

[314] Vinton G. Cerf. Cerf's up: Half-baked high-resolution referencing. *Communications of the ACM*, 64(2):7, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3442186.

Staff:2021:LES

[315] CACM Staff. Letters to the editor: Salary disputes. *Communications of the ACM*, 64(2):8–9, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3442383.

Hill:2021:IAW

[316] Robin K. Hill. Issues arise when time goes digital. *Communications of the ACM*, 64(2):10–11, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3440990.

Edwards:2021:NML

[317] Chris Edwards. News: Moore's Law: what comes next? *Communications of the ACM*, 64(2):12–14, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3440992.

Kugler:2021:NSV

[318] Logan Kugler. News: The state of virtual reality hardware. *Communications of the ACM*, 64(2):15–16, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441290.

Kirkpatrick:2021:NTR

[319] Keith Kirkpatrick. News: Technological responses to COVID-19. *Communications of the ACM*, 64(2):17–19, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441288.

Bakos:2021:EBD

[320] Yannis Bakos, Hanna Halaburda, and Christoph Mueller-Bloch. Economic and business dimensions: When permissioned blockchains deliver more decentralization than permissionless. *Communications of the ACM*, 64(2):20–22, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3442371.

Fletcher:2021:ECF

[321] Carol L. Fletcher and Jayce R. Warner. Education: CAPE: a framework for assessing equity throughout the computer science education ecosystem. *Communications of the ACM*, 64(2):23–25, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3442373.

Neville-Neil:2021:KVK

[322] George V. Neville-Neil. Kode Vicious: Kabin fever. *Communications of the ACM*, 64(2):26–27, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3442375.

Maurer:2021:VCI

[323] Chris Maurer, Kevin Kim, Dan Kim, and Leon A. Kappelman. Viewpoint: Cybersecurity: is it worse than we think? *Communications of the ACM*, 64(2):28–30, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3399667.

Kambhampati:2021:VPR

[324] Subbarao Kambhampati. Viewpoint: Polanyi's revenge and AI's new romance with tacit knowledge. *Communications of the ACM*, 64(2):31–32, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446369.

Knuth:2021:VLD

[325] Donald E. Knuth and Len Shustek. Viewpoint: Let's not dumb down the history of computer science. *Communications of the ACM*, 64(2):33–35, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3442377.

Staff:2021:DPP

[326] CACM Staff. Differential privacy: the pursuit of protections by default. *Communications of the ACM*, 64(2):36–43, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434228.

Limoncelli:2021:TSB

[327] Thomas A. Limoncelli. The time I stole $10,000 from Bell Labs. *Communications of the ACM*, 64(2):44–46, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434224.

Feit:2021:AAC

[328] Anna Maria Feit, Mathieu Nancel, Maximilian John, Andreas Karrenbauer, Daryl Weir, and Antti Oulasvirta. AZERTY amélioré: computational design on a national scale. *Communications of the ACM*, 64(2):48–58, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3382035.

Shastri:2021:GAP

[329] Supreeth Shastri, Melissa Wasserman, and Vijay Chidambaram. GDPR anti-patterns. *Communications of the ACM*, 64(2):59–65, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3378061.

Ahn:2021:KSK

[330] Dong H. Ahn, Allison H. Baker, Michael Bentley, Ian Briggs, Ganesh Gopalakrishnan, Dorit M. Hammerling, Ignacio Laguna, Gregory L. Lee, Daniel J. Milroy, and Mariana Vertenstein. Keeping science on keel when software moves. *Communications of the ACM*, 64(2):66–74, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3382037.

Hitzler:2021:RSW

[331] Pascal Hitzler. A review of the Semantic Web field. *Communications of the ACM*, 64(2):76–83, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3397512.

Wagh:2021:DCM

[332] Sameer Wagh, Xi He, Ashwin Machanavajjhala, and Prateek Mittal. DP-cryptography: marrying differential privacy and cryptography in emerging applications. *Communications of the ACM*, 64(2):84–93, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3418290.

Amin:2021:PME

[333] Nada Amin. Programming microfluidics to execute biological protocols: technical perspective. *Communications of the ACM*, 64(2):96, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441684.

Ott:2021:BPS

[334] Jason Ott, Tyson Loveless, Chris Curtis, Mohsen Lesani, and Philip Brisk. BioScript: programming safe chemistry on laboratories-on-a-chip. *Communications of the ACM*, 64(2):97–104, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441686.

Ives:2021:SSR

[335] Zachary G. Ives. Solving the signal reconstruction problem at scale: technical perspective. *Communications of the ACM*, 64(2):105, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441688.

Asudeh:2021:SSR

[336] Abolfazl Asudeh, Jees Augustine, Saravanan Thirumuruganathan, Azade Nazi, Nan Zhang, Gautam Das, and Divesh Srivastava. Scalable signal reconstruction for a broad range of applications. *Communications of the ACM*, 64 (2):106–115, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441689.

Hoffmann:2021:LBB

[337] Leah Hoffmann. Last byte: Bringing stability to wireless connections. *Communications of the ACM*, 64(2):120–ff, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441293.

Chien:2021:ELA

[338] Andrew A. Chien. Editor's letter: Around the world: (the first time) with *Communications*' Regional Special Sections. *Communications of the ACM*, 64(3):5–7, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3448648.

Vardi:2021:DPVa

[339] Moshe Y. Vardi. Departments: The people vs. tech. *Communications of the ACM*, 64(3):9, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446769.

Oakes:2021:CPC

[340] Graham Oakes. Career paths in computing: Enabling renewable energy through smarter grids. *Communications of the ACM*, 64(3):11, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3441558.

Guzdial:2021:DDB

[341] Mark Guzdial and Joel C. Adams. Disputing Dijkstra, and birthdays in base 2. *Communications of the ACM*, 64(3):12–13, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446806.

Monroe:2021:NPQ

[342] Don Monroe. News: The power of quantum complexity. *Communications of the ACM*, 64(3):15–17, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446875.

Savage:2021:NFF

[343] Neil Savage. News: Fact-finding mission. *Communications of the ACM*, 64(3):18–19, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446879.

Marks:2021:NCB

[344] Paul Marks. News: Can the biases in facial recognition be fixed; also, should they? *Communications of the ACM*, 64(3):20–22, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446877.

Garfinkel:2021:NEM

[345] Simson Garfinkel and Eugene H. Spafford. News: Edmund M. Clarke (1945–2020). *Communications of the ACM*, 64(3):23–24, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447810.

Samuelson:2021:LSP

[346] Pamela Samuelson. Legally speaking: The push for stricter rules for Internet platforms. *Communications of the ACM*, 64(3):26–28, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447251.

Cranor:2021:PIC

[347] Lorrie Faith Cranor. Privacy: Informing California privacy regulations with evidence from research. *Communications of the ACM*, 64(3):29–32, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447253.

Johnson:2021:CEW

[348] Deborah G. Johnson and Nicholas Diakopoulos. Computing ethics: What to do about deepfakes. *Communications of the ACM*, 64(3):33–35, March

2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447255.

Denning:2021:PIS

[349] Peter J. Denning and Jeffrey Johnson. The profession of IT: Science is not another opinion. *Communications of the ACM*, 64(3):36–38, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447257.

Wirth:2021:VYP

[350] Niklaus Wirth. Viewpoint: 50 years of Pascal. *Communications of the ACM*, 64(3):39–41, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447525.

Friesike:2021:VWC

[351] Sascha Friesike, Frédéric Thiesse, and George Kuk. Viewpoint: What can the maker movement teach us about the digitization of creativity? *Communications of the ACM*, 64(3):42–45, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447524.

Nov:2021:VTP

[352] Oded Nov, Yindalon Aphinyanaphongs, Yvonne W. Lui, Devin Mann, Maurizio Porfiri, Mark Riedl, John-Ross Rizzo, and Batia Wiesenfeld. Viewpoint: The transformation of patient-clinician relationships with AI-based medical advice. *Communications of the ACM*, 64(3):46–48, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3417518.

Staff:2021:SCW

[353] CACM Staff. A second conversation with Werner Vogels. *Communications of the ACM*, 64(3):50–57, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434232.

Frazelle:2021:WAM

[354] Jessie Frazelle. Out-of-this-world additive manufacturing. *Communications of the ACM*, 64(3):58–62, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3424254.

Thompson:2021:DCG

[355] Neil C. Thompson and Svenja Spanuth. The decline of computers as a general purpose technology. *Communications of the ACM*, 64(3):64–72, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3430936.

Molnar:2021:EIF

[356] Andreea Molnar, Therese Keane, and Rosemary Stockdale. Educational interventions and female enrollment in IT degrees. *Communications of the ACM*, 64(3):73–77, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3387106.

Wang:2021:GTC

[357] Lucy Lu Wang, Gabriel Stanovsky, Luca Weihs, and Oren Etzioni. Gender trends in computer science authorship. *Communications of the ACM*, 64(3):78–84, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3430803`.

Mazurczyk:2021:CRT

[358] Wojciech Mazurczyk and Luca Caviglione. Cyber reconnaissance techniques. *Communications of the ACM*, 64(3):86–95, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418293`.

Gutierrez:2021:KG

[359] Claudio Gutierrez and Juan F. Sequeda. Knowledge graphs. *Communications of the ACM*, 64(3):96–104, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418294`.

Arora:2021:WDT

[360] Sanjeev Arora. Why don't today's deep nets overfit to their training data?: Technical perspective. *Communications of the ACM*, 64(3):106, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3446773`.

Zhang:2021:UDL

[361] Chiyuan Zhang, Samy Bengio, Moritz Hardt, Benjamin Recht, and Oriol Vinyals. Understanding deep learning (still) requires rethinking generalization. *Communications of the ACM*, 64(3):107–115, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3446776`.

Dutta:2021:LIO

[362] Prabal Dutta. Localizing insects outdoors: technical perspective. *Communications of the ACM*, 64(3):116, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3446778`.

Nandakumar:2021:LSS

[363] Rajalakshmi Nandakumar, Vikram Iyer, and Shyamnath Gollakota. 3D localization for subcentimeter-sized devices. *Communications of the ACM*, 64(3):117–125, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3446782`.

Clegg:2021:LBAa

[364] Brian Clegg. Last byte: Awakening. *Communications of the ACM*, 64(3):128–ff, March 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3446803`.

Cerf:2021:CWD

[365] Vinton G. Cerf. Cerf's up: What does a static, sustainable economy look like? *Communications of the ACM*, 64(4):5, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3450610`.

Arquilla:2021:BSH

[366] John Arquilla and Mark Guzdial. BLOG@CACM: The SolarWinds hack, and a grand challenge for CS education. *Communications of the ACM*, 64(4): 6–7, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3449047`.

Edwards:2021:NBN

[367] Chris Edwards. News: The best of NLP. *Communications of the ACM*, 64(4):9–11, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3449049`.

Marks:2021:NDL

[368] Paul Marks. News: Deep learning speeds MRI scans. *Communications of the ACM*, 64(4):12–14, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3449060`.

Greengard:2021:NWS

[369] Samuel Greengard. News: The worsening state of ransomware. *Communications of the ACM*, 64(4):15–17, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3449054`.

Sako:2021:TSM

[370] Mari Sako. Technology strategy and management: From remote work to working from anywhere. *Communications of the ACM*, 64(4):20–22, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3451223`.

Brown:2021:BPR

[371] Q. Brown, T. Grandison, J. D. Burge, O. C. Jenkins, and T. Dillahunt. Broadening participation: Reflections on black in computing. *Communications of the ACM*, 64(4):23–24, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3451225`.

Neville-Neil:2021:KVN

[372] George V. Neville-Neil. Kode Vicious: The non-psychopath's guide to managing an open source project. *Communications of the ACM*, 64(4):25–27, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3451229`.

Haigh:2021:HRWa

[373] Thomas Haigh. Historical reflections: When hackers were heroes. *Communications of the ACM*, 64(4):28–34, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3451227`.

DeMol:2021:VRP

[374] Liesbeth De Mol and Maarten Bullynck. Viewpoint: Roots of 'program' revisited. *Communications of the ACM*, 64(4):35–37, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3419406`.

Vrandecic:2021:VBM

[375] Denny Vrandečić. Viewpoint: Building a multilingual Wikipedia. *Communications of the ACM*, 64(4):38–41, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3425778.

Aly:2021:AWS

[376] Sherif G. Aly, Mohamed Mokbel, and Moustafa Youssef. Arab world special section: Welcome. *Communications of the ACM*, 64(4):42–44, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447754.

Elnozahy:2021:AWS

[377] E. N. (Mootaz) Elnozahy. Arab world special section: Hot topics: Building a research university in the Arab region: the case of KAUST. *Communications of the ACM*, 64(4):46–49, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447717.

Elmagarmid:2021:AWS

[378] Ahmed Elmagarmid and Abdellatif Saoudi. Arab world special section: Hot topics: Building a preeminent research lab in the Arab region: the case of QCRI. *Communications of the ACM*, 64(4):50–53, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447719.

ElSaban:2021:AWS

[379] Motaz El Saban. Arab world special section: Hot topics: Data science for the oil and gas industry in the Arab region. *Communications of the ACM*, 64(4):54–56, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447721.

Shamout:2021:AWS

[380] Farah E. Shamout and Dana Abu Ali. Arab world special section: Hot topics: The strategic pursuit of artificial intelligence in the United Arab Emirates. *Communications of the ACM*, 64(4):57–58, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447723.

Aboulnaga:2021:AWSa

[381] Ashraf Aboulnaga, Sanjay Chawla, Ahmed Elmagarmid, Mohammed Al-Mannai, and Hassan Al-Sayed. Arab world special section: Hot topics: An AI-enabled future for Qatar and the region. *Communications of the ACM*, 64(4):59–61, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447725.

Touma:2021:AWS

[382] Walid R. Touma and Saad El Zein. Arab world special section: Hot topics: Entrepreneurship ecosystem in Lebanon. *Communications of the ACM*, 64(4):62–63, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447727.

Eraqi:2021:AWS

[383] Hesham M. Eraqi and Ibrahim Sobh. Arab world special section: Hot topics: Autonomous driving in the face of unconventional odds. *Communications of the ACM*, 64(4):64–66, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447729`.

Abbar:2021:AWS

[384] Sofiane Abbar, Rade Stanojevic, Shadab Mustafa, and Mohamed Mokbel. Arab world special section: Hot topics: Traffic routing in the ever-changing city of Doha. *Communications of the ACM*, 64(4):67–68, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447731`.

Lazem:2021:AWS

[385] Shaimaa Lazem, Mennatallah Saleh, and Ebtisam Alabdulqader. Arab world special section: Hot topics: ArabHCI: five years and counting. *Communications of the ACM*, 64(4):69–71, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447733`.

Darwish:2021:AWS

[386] Kareem Darwish, Nizar Habash, Mourad Abbas, Hend Al-Khalifa, Huseein T. Al-Natsheh, Houda Bouamor, Karim Bouzoubaa, Violetta Cavalli-Sforza, Samhaa R. El-Beltagy, Wassim El-Hajj, Mustafa Jarrar, and Hamdy Mubarak. Arab world special section: Big trends: a panoramic survey of natural language processing in the Arab world. *Communications of the ACM*, 64(4):72–81, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447735`.

Keyes:2021:AWS

[387] David Keyes. Arab world special section: Big trends: The Arab world prepares the exascale workforce. *Communications of the ACM*, 64(4):82–87, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447737`.

Weber:2021:AWS

[388] Ingmar Weber, Muhammad Imran, Ferda Ofli, Fouad Mrad, Jennifer Colville, Mehdi Fathallah, Alissar Chaker, and Wigdan Seed Ahmed. Arab world special section: Big trends: Non-traditional data sources: providing insights into sustainable development. *Communications of the ACM*, 64(4):88–95, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447739`.

Popper:2021:AWS

[389] Christina Pöpper, Michail Maniatakos, and Roberto Di Pietro. Arab world special section: Big trends: Cyber security research in the Arab region: a blooming ecosystem with global ambitions. *Communications of the ACM*, 64(4):96–101, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447741`.

Abdennadher:2021:AWS

[390] Slim Abdennadher, Sherif G. Aly, Joe Tekli, and Karima Echihabi. Arab world special section: Big trends: Unleashing early maturity academic innovations. *Communications of the ACM*, 64(4):102–107, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447743.

Eldawlatly:2021:AWS

[391] Seif Eldawlatly, Mohamed Abouelhoda, Omar S. Al-Kadi, Takashi Gojobori, Boris Jankovic, Mohamad Khalil, Ahsan H. Khandoker, and Ahmed Morsy. Arab world special section: Big trends: Biomedical computing in the Arab world: unlocking the potential of a growing research community. *Communications of the ACM*, 64(4):108–113, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447746.

Shihada:2021:AWS

[392] Basem Shihada, Tamer Elbatt, Ahmed Eltawil, Mohammad Mansour, Essaid Sabir, Slim Rekhis, and Sanaa Sharafeddine. Arab world special section: Big trends: Networking research for the Arab world: from regional initiatives to potential global impact. *Communications of the ACM*, 64(4):114–119, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447748.

Aboulnaga:2021:AWSb

[393] Ashraf Aboulnaga, Azza Abouzied, Karima Echihabi, and Mourad Ouzzani. Arab world special section: Big trends: Database systems research in the Arab world: a tradition that spans decades. *Communications of the ACM*, 64(4):120–123, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3447750.

Ali:2021:AWS

[394] Ahmed Ali, Shammur Chowdhury, Mohamed Afify, Wassim El-Hajj, Hazem Hajj, Mourad Abbas, Amir Hussein, Nada Ghneim, Mohammad Abushariah, and Assal Alqudah. Arab world special section: Big trends: Connecting Arabs: bridging the gap in dialectal speech recognition. *Communications of the ACM*, 64(4):124–129, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3451150.

Crawshaw:2021:EVN

[395] David Crawshaw. Everything VPN is new again. *Communications of the ACM*, 64(4):130–134, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434230.

Friedler:2021:IPF

[396] Sorelle A. Friedler, Carlos Scheidegger, and Suresh Venkatasubramanian. The (im)possibility of fairness: different value systems require different mechanisms for fair decision making. *Communications of the ACM*, 64(4):136–143, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433949.

Jung:2021:SSP

[397] Ralf Jung, Jacques-Henri Jourdan, Robbert Krebbers, and Derek Dreyer. Safe systems programming in Rust. *Communications of the ACM*, 64 (4):144–152, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3418295.

SouzaDosReis:2021:TAC

[398] Eduardo Souza Dos Reis, Cristiano André Da Costa, Diórgenes Eugênio Da Silveira, Rodrigo Simon Bavaresco, Rodrigo Da Rosa Righi, Jorge Luis Victória Barbosa, Rodolfo Stoffel Antunes, Márcio Miguel Gomes, and Gustavo Federizzi. Transformers aftermath: current research and rising trends. *Communications of the ACM*, 64(4):154–163, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3430937.

Idreos:2021:SST

[399] Stratos Idreos. The strength of SuRF: technical perspective. *Communications of the ACM*, 64(4):165, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3450261.

Zhang:2021:SRF

[400] Huanchen Zhang, Hyeontaek Lim, Viktor Leis, David G. Andersen, Michael Kaminsky, Kimberly Keeton, and Andrew Pavlo. Succinct range filters. *Communications of the ACM*, 64(4):166–173, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3450262.

Shasha:2021:LBRa

[401] Dennis Shasha. Last byte: Roulette angel. *Communications of the ACM*, 64(4):176–ff, April 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3450331.

Vardi:2021:DAT

[402] Moshe Y. Vardi. Departments: The agency trilemma and ACM. *Communications of the ACM*, 64(5):4, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3459084.

Pancake:2021:ELR

[403] Cherri M. Pancake and Andrew A. Chien. Editor's letter: In response to 'Vardi's insights'. *Communications of the ACM*, 64(5):5, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3459982.

Mitchell:2021:CPC

[404] Caven Cade Mitchell. Career paths in computing: Computing enabled me to… promote sustainability and help underserved communities. *Communications of the ACM*, 64(5):7, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453631.

Guzdial:2021:TOT

[405] Mark Guzdial. Teaching other teachers how to teach CS better. *Communications of the ACM*, 64(5):8–9,

May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453647.

Monroe:2021:NSR

[406] Don Monroe. News: a satisfying result. *Communications of the ACM*, 64(5):10–12, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453650.

Savage:2021:NCF

[407] Neil Savage. News: Catching the fakes. *Communications of the ACM*, 64(5):13–14, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453696.

Kirkpatrick:2021:NTC

[408] Keith Kirkpatrick. News: a traffic cop for low earth orbit. *Communications of the ACM*, 64(5):15–17, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453703.

Peisert:2021:STS

[409] Sean Peisert. Security: Trustworthy scientific computing. *Communications of the ACM*, 64(5):18–21, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3457191.

Choi:2021:LTS

[410] Bryan H. Choi. Law and technology: Software professionals, malpractice law, and codes of ethics. *Communications of the ACM*, 64(5):22–24, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3457193.

Bell:2021:ECU

[411] Tim Bell. Education: CS unplugged or coding classes? *Communications of the ACM*, 64(5):25–27, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3457195.

Hildebrandt:2021:VUL

[412] Mireille Hildebrandt. Viewpoint: Understanding law and the rule of law: a plea to augment CS curricula. *Communications of the ACM*, 64(5):28–31, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3425779.

Sochat:2021:VBP

[413] Vanessa Sochat. Viewpoint: The 10 best practices for remote software engineering. *Communications of the ACM*, 64(5):32–36, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3459613.

Dershowitz:2021:VLH

[414] Nachum Dershowitz. Viewpoint: Let's be honest. *Communications of the ACM*, 64(5):37–41, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3431281.

Singh:2021:EC

[415] Jatinder Singh, Jennifer Cobbe, Do Le Quoc, and Zahra Tarkhani. Enclaves

in the clouds. *Communications of the ACM*, 64(5):42–51, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3447543`.

Frazelle:2021:BD

[416] Jessie Frazelle. Battery day. *Communications of the ACM*, 64(5):52–59, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3434222`.

Grosse:2021:IID

[417] Eric Grosse, Fred B. Schneider, and Lynette L. Millett. Implementing insider defenses. *Communications of the ACM*, 64(5):60–65, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418296`.

Liu:2021:HCT

[418] Yuhang Liu, Xian-He Sun, Yang Wang, and Yungang Bao. HCDA: from computational thinking to a generalized thinking paradigm. *Communications of the ACM*, 64(5):66–75, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418291`.

Schleier-Smith:2021:WSC

[419] Johann Schleier-Smith, Vikram Sreekanti, Anurag Khandelwal, Joao Carreira, Neeraja J. Yadwadkar, Raluca Ada Popa, Joseph E. Gonzalez, Ion Stoica, and David A. Patterson. What serverless computing is and should become: the next phase of cloud computing. *Communications of the ACM*, 64(5): 76–84, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3406011`.

DAntoni:2021:AMT

[420] Loris D'Antoni and Margus Veanes. Automata modulo theories. *Communications of the ACM*, 64(5):86–95, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3419404`.

Schweitzer:2021:TPL

[421] Pascal Schweitzer. Technical perspective: a logical step toward the graph isomorphism problem. *Communications of the ACM*, 64(5):97, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3453945`.

Grohe:2021:ICD

[422] Martin Grohe and Daniel Neuen. Isomorphism, canonization, and definability for graphs of bounded rank width. *Communications of the ACM*, 64(5):98–105, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3453943`.

Steinhardt:2021:TPR

[423] Jacob S. Steinhardt. Technical perspective: Robust statistics tackle new problems. *Communications of the ACM*, 64(5):106, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3453937`.

Diakonikolas:2021:RMA

[424] Ilias Diakonikolas, Gautam Kamath, Daniel M. Kane, Jerry Li, Ankur Moitra, and Alistair Stewart. Robustness meets algorithms. *Communications of the ACM*, 64(5):107–115, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3453935`.

P-Ray:2021:LBB

[425] P-Ray. Last byte: Behold the Ch!Ld. *Communications of the ACM*, 64(5): 120–ff, May 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3453712`.

Chien:2021:ELT

[426] Andrew A. Chien. Editor's letter: Time for two annual Turing awards. *Communications of the ACM*, 64(6):5, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3462459`. See letters [477].

Cerf:2021:CIC

[427] Vinton G. Cerf. Cerf's up: It came from outer space! *Communications of the ACM*, 64(6):7, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3462461`.

Meil:2021:SUP

[428] Doug Meil. The search for unlimited productivity. *Communications of the ACM*, 64(6):10–11, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460212`.

Savage:2021:NGB

[429] Neil Savage. News: Getting down to basics. *Communications of the ACM*, 64(6):12–14, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460734`.

Monroe:2021:NDA

[430] Don Monroe. News: Deceiving AI. *Communications of the ACM*, 64(6): 15–16, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460218`.

Garfinkel:2021:NJM

[431] Simson Garfinkel and Eugene H. Spafford. News: Jack Minker (1927–2021). *Communications of the ACM*, 64(6):17, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3462465`.

Krakovsky:2021:NTH

[432] Marina Krakovsky. News: Taking the heat: Maxwell's demon and the high cost of erasure. *Communications of the ACM*, 64(6):18–20, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460214`.

Edwards:2021:NLA

[433] Chris Edwards. News: Let the algorithm decide? *Communications of the ACM*, 64(6):21–22, June 2021. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3460216.

Mercuri:2021:IRR

[434] Rebecca T. Mercuri and Peter G. Neumann. Inside risks: The risks of election believability (or lack thereof). *Communications of the ACM*, 64(6): 24–30, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3461464.

Neville-Neil:2021:KVA

[435] George V. Neville-Neil. Kode vicious: Aversion to versions. *Communications of the ACM*, 64(6):31, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3461468.

Denning:2021:PIL

[436] Peter J. Denning. The profession of IT: Locality and professional life. *Communications of the ACM*, 64(6):32–34, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3461466.

Hylton:2021:VVC

[437] Todd Hylton, Thomas M. Conte, and Mark D. Hill. Viewpoint: a vision to compute like nature: thermodynamically. *Communications of the ACM*, 64(6):35–38, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3431282.

Yao:2021:VDP

[438] Danfeng (Daphne) Yao. Viewpoint: Depth and persistence: what researchers need to know about impostor syndrome. *Communications of the ACM*, 64(6):39–42, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3437255.

Littman:2021:VCR

[439] Michael L. Littman. Viewpoint: Collusion rings threaten the integrity of computer science research. *Communications of the ACM*, 64(6):43–44, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3429776.

Forsgren:2021:SDP

[440] Nicole Forsgren, Margaret-Anne Storey, Chandra Maddila, Thomas Zimmermann, Brian Houck, and Jenna Butler. The SPACE of developer productivity. *Communications of the ACM*, 64(6):46–53, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453928.

Russinovich:2021:TCC

[441] Mark Russinovich, Manuel Costa, Cédric Fournet, David Chisnall, Antoine Delignat-Lavaud, Sylvan Clebsch, Kapil Vaswani, and Vikas Bhatia. Toward confidential cloud computing. *Communications of the ACM*, 64(6):54–61, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453930.

Guan:2021:CER

[442] Hui Guan, Shaoshan Liu, Xiaolong Ma, Wei Niu, Bin Ren, Xipeng Shen,

Yanzhi Wang, and Pu Zhao. CoCoPIE: enabling real-time AI on off-the-shelf mobile devices via compression-compilation co-design. *Communications of the ACM*, 64(6):62–68, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418297`.

Franch:2021:RER

[443] Xavier Franch, Cristina Palomares, and Tony Gorschek. On the requirements engineer role. *Communications of the ACM*, 64(6):69–75, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3418292`.

Misa:2021:DGB

[444] Thomas J. Misa. Dynamics of gender bias in computing. *Communications of the ACM*, 64(6):76–83, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3417517`.

Sun:2021:SIA

[445] Yixin Sun, Maria Apostolaki, Henry Birge-Lee, Laurent Vanbever, Jennifer Rexford, Mung Chiang, and Prateek Mittal. Securing Internet applications from routing attacks. *Communications of the ACM*, 64(6):86–96, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3429775`.

Bhattacharjee:2021:RLP

[446] Abhishek Bhattacharjee. Race logic presents a novel form of encoding: technical perspective. *Communications of the ACM*, 64(6):98, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460221`.

Tzimpragos:2021:SCB

[447] Georgios Tzimpragos, Advait Madhavan, Dilip Vasudevan, Dmitri Strukov, and Timothy Sherwood. In-sensor classification with boosted race trees. *Communications of the ACM*, 64(6):99–105, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460223`.

Jerger:2021:CPS

[448] Natalie Enright Jerger. A chiplet prototype system for deep learning inference: technical perspective. *Communications of the ACM*, 64(6):106, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460225`.

Shao:2021:SSD

[449] Yakun Sophia Shao, Jason Cemons, Rangharajan Venkatesan, Brian Zimmer, Matthew Fojtik, Nan Jiang, Ben Keller, Alicia Klinefelter, Nathaniel Pinckney, Priyanka Raina, Stephen G. Tell, Yanqing Zhang, William J. Dally, Joel Emer, C. Thomas Gray, Brucek Khailany, and Stephen W. Keckler. Simba: scaling deep-learning inference with chiplet-based architecture. *Communications of the ACM*, 64(6):107–116, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460227`.

Hoffmann:2021:LBS

[450] Leah Hoffmann. Last byte: Shaping the foundations of programming languages. *Communications of the ACM*, 64(6):120–ff, June 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3460442.

Vardi:2021:DPVb

[451] Moshe Y. Vardi. Departments: Program verification: vision and reality. *Communications of the ACM*, 64(7):5, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3469113.

Holt:2021:CPC

[452] Victoria Holt. Career paths in computing: Computing enabled me to ...: Obtain a Ph.D. and a career in data. *Communications of the ACM*, 64(7):7, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464919.

Staff:2021:ELTa

[453] CACM Staff. Editor's letter: Two sides of the software engineering coin. *Communications of the ACM*, 64(7):8–9, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3466562.

Arquilla:2021:SSC

[454] John Arquilla, Judi Fusco, Pati Ruiz, and Jeremy Roschelle. Securing seabed cybersecurity, emphasizing intelligence augmentation. *Communications of the ACM*, 64(7):10–12, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464931.

Greengard:2021:NFS

[455] Samuel Greengard. News: Formal software verification measures up. *Communications of the ACM*, 64(7):13–15, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464933.

Shein:2021:NBF

[456] Esther Shein. News: a battery-free Internet of Things. *Communications of the ACM*, 64(7):16–18, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464937.

Marks:2021:NFS

[457] Paul Marks. News: The future of supply chains. *Communications of the ACM*, 64(7):19–21, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464935.

Garfinkel:2021:NCM

[458] Simson Garfinkel and Eugene H. Spafford. News: Charles M. Geschke (1939–2021). *Communications of the ACM*, 64(7):22, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3467481.

Samuelson:2021:LSR

[459] Pamela Samuelson. Legally speaking: Reimplementing software interfaces is fair use. *Communications of the*

ACM, 64(7):24–26, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3466607.

Cranor:2021:PLL

[460] Lorrie Faith Cranor. Privacy: Lessons from the loo. *Communications of the ACM*, 64(7):27–29, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3466609.

Barocas:2021:CER

[461] Solon Barocas, Asia J. Biega, Margarita Boyarskaya, Kate Crawford, Hal Daumé III, Miroslav Dudík, Benjamin Fish, Mary L. Gray, Brent Hecht, Alexandra Olteanu, Forough Poursabzi-Sangdeh, Luke Stark, Jennifer Wortman Vaughan, Hanna Wallach, and Marion Zepf. Computing ethics: Responsible computing during COVID-19 and beyond. *Communications of the ACM*, 64(7):30–32, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3466612.

Domingo-Ferrer:2021:VLD

[462] Josep Domingo-Ferrer, David Sánchez, and Alberto Blanco-Justicia. Viewpoint: The limits of differential privacy (and its misuse in data release and machine learning). *Communications of the ACM*, 64(7):33–35, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433638.

Spinellis:2021:VWC

[463] Diomidis Spinellis. Viewpoint: Why computing students should contribute to open source software projects. *Communications of the ACM*, 64(7):36–38, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3437254.

Breaux:2021:VSD

[464] Travis Breaux and Jennifer Moritz. Viewpoint: The 2021 software developer shortage is coming. *Communications of the ACM*, 64(7):39–41, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3440753.

Nokleberg:2021:AF

[465] Chris Nokleberg and Brad Hawkes. Application frameworks. *Communications of the ACM*, 64(7):42–49, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446796.

Schlossnagle:2021:ATS

[466] Theo Schlossnagle, Justin Sheehy, and Chris McCubbin. Always-on time-series database: keeping up where there's no way to catch up. *Communications of the ACM*, 64(7):50–56, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3442518.

Bengio:2021:TLD

[467] Yoshua Bengio, Yann LeCun, and Geoffrey Hinton. Turing lecture: Deep learning for AI. *Communications of the ACM*, 64(7):58–65, July 2021. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3448250.

Knowles:2021:HCA

[468] Bran Knowles, Vicki L. Hanson, Yvonne Rogers, Anne Marie Piper, Jenny Waycott, Nigel Davies, Aloha Hufana Ambe, Robin N. Brewer, Debaleena Chattopadhyay, Marianne Dee, David Frohlich, Marisela Gutierrez-Lopez, Ben Jelen, Amanda Lazar, Radoslaw Nielek, Belén Barros Pena, Abi Roper, Mark Schlager, Britta Schulte, and Irene Ye Yuan. The harm in conflating aging with accessibility. *Communications of the ACM*, 64(7):66–71, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3431280.

Jarrahi:2021:FWP

[469] Mohammad Hossein Jarrahi, Gemma Newlands, Brian Butler, Saiph Savage, Christoph Lutz, Michael Dunn, and Steve Sawyer. Flexible work and personal digital infrastructures. *Communications of the ACM*, 64(7):72–79, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3419405.

Winter:2021:SCC

[470] Stephan Winter, Timothy Baldwin, Martin Tomko, Jochen Renz, Werner Kuhn, and Maria Vasardani. Spatial concepts in the conversation with a computer. *Communications of the ACM*, 64(7):82–88, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3440752.

Sankaranarayanan:2021:EMD

[471] Sriram Sankaranarayanan. An elegant model for deriving equations: technical perspective. *Communications of the ACM*, 64(7):90, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3465214.

Tsoutsouras:2021:DES

[472] Vasileios Tsoutsouras, Sam Willis, and Phillip Stanley-Marbell. Deriving equations from sensor data using dimensional function synthesis. *Communications of the ACM*, 64(7):91–99, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3465216.

Rexford:2021:TPD

[473] Jennifer Rexford. Tracking pandemic-driven internet traffic: technical perspective. *Communications of the ACM*, 64(7):100, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3465173.

Feldmann:2021:YLH

[474] Anja Feldmann, Oliver Gasser, Franziska Lichtblau, Enric Pujol, Ingmar Poese, Christoph Dietzel, Daniel Wagner, Matthias Wichtlhuber, Juan Tapiador, Narseo Vallina-Rodriguez, Oliver Hohlfeld, and Georgios Smaragdakis. A year in lockdown: how the waves of COVID-19 impact Internet traffic. *Communications of the ACM*, 64(7):101–108, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3465212.

Shasha:2021:LBSb

[475] Dennis Shasha. Last byte: String me along. *Communications of the ACM*, 64(7):112, July 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3466564`.

Cerf:2021:CC

[476] Vinton G. Cerf. Cerf's up: On communication. *Communications of the ACM*, 64(8):5, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3472146`.

Rector:2021:LET

[477] Gary Rector, Alexander Simonelis, Maurice van Swaaij, Alex Thomasian, Rebecca Mercuri, Andrew A. Chien, and Joseph P. Skudlarek. Letters to the editor: Tales of two Turings. *Communications of the ACM*, 64(8):7–9, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469876`. Comments on proposal for two annual Turing awards [426].

Hazzan:2021:JID

[478] Orit Hazzan and Koby Mike. A journal for interdisciplinary data science education. *Communications of the ACM*, 64(8):10–11, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469281`.

Edwards:2021:NBS

[479] Chris Edwards. News: Better security through obfuscation. *Communications of the ACM*, 64(8):13–15, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469283`.

Kirkpatrick:2021:NFI

[480] Keith Kirkpatrick. News: Fixing the internet. *Communications of the ACM*, 64(8):16–17, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469287`.

Kugler:2021:NUT

[481] Logan Kugler. News: The unionization of technology companies. *Communications of the ACM*, 64(8):18–20, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469285`.

Wolf:2021:NUA

[482] Marty J. Wolf, Don Gotterbarn, and Michael Kirkpatrick. News: Upholding ACM's principles. *Communications of the ACM*, 64(8):21, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3473051`.

Petropoulos:2021:EBD

[483] Georgios Petropoulos. Economic and business dimensions: a European union approach to regulating big tech. *Communications of the ACM*, 64(8):24–26, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469104`.

Becker:2021:EWD

[484] Brett A. Becker. Education: What does saying that 'programming is hard' really say, and about whom? *Communications of the ACM*, 64(8):27–29, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469115`.

Neville-Neil:2021:KVPa

[485] George V. Neville-Neil. Kode vicious: In praise of the disassembler. *Communications of the ACM*, 64(8):30–31, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3469118`.

Shneiderman:2021:VRA

[486] Ben Shneiderman. Viewpoint: Responsible AI: bridging from ethics to practice. *Communications of the ACM*, 64(8):32–35, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3445973`.

Ghezzi:2021:VSN

[487] Carlo Ghezzi. Viewpoint: Science needs to engage with society: some lessons from COVID-19. *Communications of the ACM*, 64(8):36–38, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3473614`.

Whalley:2021:VDC

[488] David Whalley, Xin Yuan, and Xiuwen Liu. Viewpoint: The domestic computer science graduate students are there, we just need to recruit them. *Communications of the ACM*, 64(8):39–43, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3448249`.

Srinivasan:2021:BAS

[489] Ramya Srinivasan and Ajay Chander. Biases in AI systems. *Communications of the ACM*, 64(8):44–49, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3464903`.

Blum:2021:WRT

[490] Niklas Blum, Serge Lachapelle, and Harald Alvestrand. WebRTC: real-time communication for the open web platform. *Communications of the ACM*, 64(8):50–54, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3453182`.

Baudin:2021:DPB

[491] Patrick Baudin, François Bobot, David Bühler, Loïc Correnson, Florent Kirchner, Nikolai Kosmatov, André Maroneze, Valentin Perrelle, Virgile Prevosto, Julien Signoles, and Nicky Williams. The dogged pursuit of bug-free C programs: the Frama-C software analysis platform. *Communications of the ACM*, 64(8):56–68, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3470569`.

Dekel:2021:UUT

[492] Tali Dekel and Noah Snavely. Unveiling unexpected training data in Internet

video. *Communications of the ACM*, 64(8):69–79, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3431283.

Wang:2021:MDD

[493] Xiaonan Wang and Xingwei Wang. Multimedia data delivery based on IoT clouds. *Communications of the ACM*, 64(8):80–86, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474089.

Barros:2021:SCC

[494] Alistair Barros, Renuka Sindhgatta, and Alireza Nili. Scaling up chatbots for corporate service delivery systems. *Communications of the ACM*, 64(8):88–97, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446912.

Chasins:2021:PHB

[495] Sarah E. Chasins, Elena L. Glassman, and Joshua Sunshine. PL and HCI: better together. *Communications of the ACM*, 64(8):98–106, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3469279.

Daskalakis:2021:QOM

[496] Constantinos Daskalakis. The quest for optimal multi-item auctions: technical perspective. *Communications of the ACM*, 64(8):108, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470440.

Dutting:2021:OAT

[497] Paul Dütting, Zhe Feng, Harikrishna Narasimhan, David C. Parkes, and Sai S. Ravindranath. Optimal auctions through deep learning. *Communications of the ACM*, 64(8):109–116, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470442.

Hester:2021:ERT

[498] Josiah D. Hester. eBP rides the third wave of mobile health: technical perspective. *Communications of the ACM*, 64(8):117, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470444.

Bui:2021:EEW

[499] Nam Bui, Nhat Pham, Jessica Jacqueline Barnitz, Zhanan Zou, Phuc Nguyen, Hoang Truong, Taeho Kim, Nicholas Farrow, Anh Nguyen, Jianliang Xiao, Robin Deterding, Thang Dinh, and Tam Vu. eBP: an ear-worn device for frequent and comfortable blood pressure monitoring. *Communications of the ACM*, 64(8):118–125, August 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470446.

Clegg:2021:LBAb

[500] Brian Clegg. Last byte: Agent algorithm: crime-solving computer plays by its own rules. *Communications of the ACM*, 64(8):128–ff, August

2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470629.

Vardi:2021:DSH

[501] Moshe Y. Vardi. Departments: The sand-heap paradox of privacy and influence. *Communications of the ACM*, 64(9):5, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3477583.

Sorensen:2021:CPC

[502] Andrew Sorensen. Career paths in computing: How music and programming led me to build digital microworlds. *Communications of the ACM*, 64(9):7, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3476462.

Staff:2021:ELTb

[503] CACM Staff. Editor's letter: Turing reaction. *Communications of the ACM*, 64(9):9, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3477598.

Meil:2021:FAS

[504] Doug Meil and Mario Antoine Aoun. Finding the art in systems conversions, naming. *Communications of the ACM*, 64(9):10–11, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474351.

Krakovsky:2021:NMR

[505] Marina Krakovsky. News: a model restoration. *Communications of the ACM*, 64(9):13–15, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474353.

Greengard:2021:NPP

[506] Samuel Greengard. News: Photonic processors light the way. *Communications of the ACM*, 64(9):16–18, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474357.

Kugler:2021:NNF

[507] Logan Kugler. News: Non-fungible tokens and the future of art. *Communications of the ACM*, 64(9):19–20, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474355.

Chander:2021:LTP

[508] Anupam Chander. Law and technology: Protecting the global Internet from technology cold wars. *Communications of the ACM*, 64(9):22–24, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3473606.

Blumenthal:2021:SSD

[509] Marjory S. Blumenthal. Security: Security done right can make smart cities wise. *Communications of the ACM*, 64 (9):25–27, September 2021. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3473608.

Haigh:2021:HRWb

[510] Thomas Haigh. Historical reflections: Women's lives in code. *Communications of the ACM*, 64(9):28–34, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3473610.

Denning:2021:PIB

[511] Peter J. Denning. The profession of IT: Back of the envelope. *Communications of the ACM*, 64(9):35–37, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3473612.

Flowers:2021:VTE

[512] Lamont A. Flowers. Viewpoint: Testing educational digital games. *Communications of the ACM*, 64(9):38–40, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3450758.

Larus:2021:VWS

[513] James R. Larus. Viewpoint: Whose smartphone is it? *Communications of the ACM*, 64(9):41–42, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3454007.

Nourbakhsh:2021:VAE

[514] Illah Reza Nourbakhsh. Viewpoint: AI ethics: a call to faculty. *Communications of the ACM*, 64(9):43–45, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3478516.

Mashatan:2021:CPQ

[515] Atefeh Mashatan and Douglas Heintzman. The complex path to quantum resistance. *Communications of the ACM*, 64(9):46–53, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464905.

Staff:2021:QST

[516] CACM Staff. Quantum-safe trust for vehicles: the race is already on. *Communications of the ACM*, 64(9): 54–61, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3466174.

Sakr:2021:FBG

[517] Sherif Sakr, Angela Bonifati, Hannes Voigt, Alexandru Iosup, Khaled Ammar, Renzo Angles, Walid Aref, Marcelo Arenas, Maciej Besta, Peter A. Boncz, Khuzaima Daudjee, Emanuele Della Valle, Stefania Dumbrava, Olaf Hartig, Bernhard Haslhofer, Tim Hegeman, Jan Hidders, Katja Hose, Adriana Iamnitchi, Vasiliki Kalavri, Hugo Kapp, Wim Martens, M. Tamer Özsu, Eric Peukert, Stefan Plantikow, Mohamed Ragab, Matei R. Ripeanu, Semih Salihoglu, Christian Schulz, Petra Selmer, Juan F. Sequeda, Joshua Shinavier, Gábor Szárnyas, Riccardo Tommasini, Antonino Tumeo, Alexandru Uta, Ana Lucia Varbanescu, Hsiang-Yun Wu, Nikolay Yakovets, Da Yan, and Eiko Yoneki. The future is

big graphs: a community view on graph processing systems. *Communications of the ACM*, 64(9):62–71, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434642.

Idell:2021:MIP

[518] Kelly Idell, David Gefen, and Arik Ragowsky. Managing IT professional turnover. *Communications of the ACM*, 64(9):72–77, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3434641.

Kress-Gazit:2021:FGH

[519] Hadas Kress-Gazit, Kerstin Eder, Guy Hoffman, Henny Admoni, Brenna Argall, Rüdiger Ehlers, Christoffer Heckman, Nils Jansen, Ross Knepper, Jan Kretínský, Shelly Levy-Tzedek, Jamy Li, Todd Murphey, Laurel Riek, and Dorsa Sadigh. Formalizing and guaranteeing human-robot interaction. *Communications of the ACM*, 64(9):78–84, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3433637.

Bouguettaya:2021:ITS

[520] Athman Bouguettaya, Quan Z. Sheng, Boualem Benatallah, Azadeh Ghari Neiat, Sajib Mistry, Aditya Ghose, Surya Nepal, and Lina Yao. An Internet of Things service roadmap. *Communications of the ACM*, 64(9):86–95, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464960.

Morgenstern:2021:IWT

[521] Leora Morgenstern. The importance of WINOGRANDE: technical perspective. *Communications of the ACM*, 64(9):98, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474378.

Sakaguchi:2021:WAW

[522] Keisuke Sakaguchi, Ronan Le Bras, Chandra Bhagavatula, and Yejin Choi. WinoGrande: an adversarial Winograd schema challenge at scale. *Communications of the ACM*, 64(9):99–106, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474381.

Balietti:2021:DYE

[523] Stefano Balietti. Does your experiment smell?: technical perspective. *Communications of the ACM*, 64(9):107, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474383.

Tosch:2021:PAT

[524] Emma Tosch, Eytan Bakshy, Emery D. Berger, David D. Jensen, and J. Eliot B. Moss. PlanAlyzer: assessing threats to the validity of online experiments. *Communications of the ACM*, 64(9):108–116, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474385.

Hoffmann:2021:LBP

[525] Leah Hoffmann. Last byte: Playing with, and against, computers. *Communications of the ACM*, 64(9): 120–ff, September 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474361.

Cerf:2021:CFT

[526] Vinton G. Cerf. Cerf's up: The future of text redux. *Communications of the ACM*, 64(10):5, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3483539.

Sukhov:2021:NLC

[527] Andrei Sukhov, Igor Sorokin, and Doug Meil. New life for cordless communication, old regrets for software projects. *Communications of the ACM*, 64(10):6–7, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3479972.

Monroe:2021:NFC

[528] Don Monroe. News: Flatter chips. *Communications of the ACM*, 64 (10):8–10, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3479974.

Kirkpatrick:2021:NAP

[529] Keith Kirkpatrick. News: Algorithmic poverty. *Communications of the ACM*, 64(10):11–12, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3479977.

Edwards:2021:NST

[530] Chris Edwards. News: a switch in time. *Communications of the ACM*, 64(10):13–15, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3479979.

Cusumano:2021:TSMb

[531] Michael A. Cusumano. Technology strategy and management: section 230 and a tragedy of the commons. *Communications of the ACM*, 64(10):16–18, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481354.

Walther:2021:BPB

[532] Kendra Walther and Richard E. Ladner. Broadening participation: Broadening participation by teaching accessibility. *Communications of the ACM*, 64(10):19–21, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481356.

Thinyane:2021:GCR

[533] Hannah Thinyane. Global computing: Remaining connected throughout design. *Communications of the ACM*, 64(10):22–24, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481429.

Neville-Neil:2021:KVD

[534] George V. Neville-Neil. Kode vicious: Divide and conquer. *Communications of the ACM*, 64(10):25, October 2021. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481431.

Doctorow:2021:VCC

[535] Cory Doctorow. Viewpoint: Competitive compatibility: let's fix the Internet, not the tech giants. *Communications of the ACM*, 64(10):26–29, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3446789.

Dubhashi:2021:EBD

[536] Devdatt Dubhashi. Economic and business dimensions: AI futures: fact and fantasy. *Communications of the ACM*, 64(10):30–31, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481581.

Varajao:2021:SDD

[537] João Varajão. Software development in disruptive times. *Communications of the ACM*, 64(10):32–35, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3453932.

Frazelle:2021:NEM

[538] Jessie Frazelle. A new era for mechanical CAD. *Communications of the ACM*, 64(10):36–39, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3464909.

Groh:2021:HDM

[539] Matthew Groh, Ziv Epstein, Nick Obradovich, Manuel Cebrian, and Iyad Rahwan. Human detection of machine-manipulated media. *Communications of the ACM*, 64(10):40–47, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3445972.

Torro:2021:SRW

[540] Osku Torro, Henri Jalo, and Henri Pirkkalainen. Six reasons why virtual reality is a game-changing computing and communication platform for organizations. *Communications of the ACM*, 64(10):48–55, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3440868.

Tannian:2021:RPC

[541] Mark Tannian and Willie Coston. The role of professional certifications in computer occupations. *Communications of the ACM*, 64(10):56–63, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474359.

Wing:2021:TA

[542] Jeannette M. Wing. Trustworthy AI. *Communications of the ACM*, 64(10):64–71, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3448248.

Vu:2021:LTU

[543] Tam Vu. Liquid testing using built-in phone sensors: technical perspective. *Communications of the ACM*, 64(10):74, October 2021. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481036.

Yue:2021:LTY

[544] Shichao Yue and Dina Katabi. Liquid testing with your smartphone. *Communications of the ACM*, 64(10):75–83, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481038.

Sadeghi:2021:RWD

[545] Ahmad-Reza Sadeghi. The real-world dilemma of security and privacy by design: technical perspective. *Communications of the ACM*, 64(10):84, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481040.

Lee:2021:SWE

[546] Jihoon Lee, Gyuhong Lee, Jinsung Lee, Youngbin Im, Max Hollingsworth, Eric Wustrow, Dirk Grunwald, and Sangtae Ha. Securing the wireless emergency alerts system. *Communications of the ACM*, 64(10):85–93, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481042.

Shasha:2021:LBRb

[547] Dennis Shasha. Last byte: Randomower. *Communications of the ACM*, 64(10):96–ff, October 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3477385.

Vardi:2021:DPC

[548] Moshe Y. Vardi. Departments: The paradox of choice in computing-research conferences. *Communications of the ACM*, 64(11):5, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3488554.

Moffatt:2021:CPC

[549] Ann Moffatt. Career paths in computing: Grace Hopper, minicomputers, and megabytes: it's a fun career. *Communications of the ACM*, 64(11):7, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3485446.

Sukhov:2021:BAI

[550] Andrei Sukhov and Vivek S. Buzruk. BLOG@CACM: Assessing Internet software engineering, encouraging competitions. *Communications of the ACM*, 64(11):8–9, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3484986.

Greengard:2021:NQD

[551] Samuel Greengard. News: Qubit devices inch toward reality. *Communications of the ACM*, 64(11):11–13, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3484988.

Edwards:2021:NHH

[552] Chris Edwards. News: Holograms on the horizon? *Communications*

of the ACM, 64(11):14–16, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3484998.

Shein:2021:NFB

[553] Esther Shein. News: Filtering for beauty. *Communications of the ACM*, 64(11):17–19, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3484997.

Samuelson:2021:LST

[554] Pamela Samuelson. Legally speaking: Text and data mining of in-copyright works: is it legal? *Communications of the ACM*, 64(11):20–22, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486628.

Kissner:2021:PPE

[555] Lea Kissner and Lorrie Cranor. Privacy: Privacy engineering superheroes. *Communications of the ACM*, 64(11):23–25, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486631.

Shilton:2021:CES

[556] Katie Shilton, Megan Finn, and Quinn DuPont. Computing ethics: Shaping ethical computing cultures. *Communications of the ACM*, 64(11):26–29, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486639.

Repenning:2021:EEP

[557] Alexander Repenning and Ashok Basawapatna. Education: Explicative programming. *Communications of the ACM*, 64(11):30–33, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486642.

Stoger:2021:VMA

[558] Karl Stöger, David Schneeberger, and Andreas Holzinger. Viewpoint: Medical artificial intelligence: the European legal perspective. *Communications of the ACM*, 64(11):34–36, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3458652.

Reich:2021:VWU

[559] Yoram Reich and Eswaran Subrahmanian. Viewpoint: We are not users: gaining control over new technologies. *Communications of the ACM*, 64(11):37–39, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486595.

Jin:2021:CRS

[560] Hai Jin, Yuanchun Shi, and Dahua Lin. China region special section: Welcome back! *Communications of the ACM*, 64(11):40–42, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481736.

Su:2021:CRS

[561] Fang Su, Xiao-Peng An, and Ji-Ye Mao. China region special section:

Hot topics: Innovations and trends in China's digital economy. *Communications of the ACM*, 64(11):44–47, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481604`.

Yuan:2021:CRS

[562] Chunfeng Yuan, Xiaopeng Gao, Yu Chen, and Yungang Bao. China region special section: Hot topics: Teaching undergraduates to build real computer systems. *Communications of the ACM*, 64(11):48–49, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481606`.

Han:2021:CRS

[563] Xu Han, Zhengyan Zhang, and Zhiyuan Liu. China region special section: Hot topics: Knowledgeable machine learning for natural language processing. *Communications of the ACM*, 64(11):50–51, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481608`.

Wu:2021:CRS

[564] Fei Wu, Qinming He, and Chao Wu. China region special section: Hot topics: AI+X micro-program fosters interdisciplinary skills in China. *Communications of the ACM*, 64(11):52–54, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481612`.

Yang:2021:CRS

[565] Jing Yang. China region special section: Hot topics: AI start-ups in China. *Communications of the ACM*, 64(11):55–56, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481610`.

Tian:2021:CRS

[566] Feng Tian, Yuntao Wang, and Yicheng Zhu. China region special section: Hot topics: Natural interactive techniques for the detection and assessment of neurological diseases. *Communications of the ACM*, 64(11):57–59, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481616`.

Zhang:2021:CRSa

[567] Yiming Zhang, Kai Lu, and Wenguang Chen. China region special section: Hot topics: Processing extreme-scale graphs on China's supercomputers. *Communications of the ACM*, 64 (11):60–63, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481614`.

Zhang:2021:CRSb

[568] Guofeng Zhang, Xiaowei Zhou, Feng Tian, Hongbin Zha, Yongtian Wang, and Hujun Bao. China region special section: Big trends: The present and future of mixed reality in China. *Communications of the ACM*, 64(11): 64–69, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3481619`.

Yu:2021:CRSa

[569] Chun Yu and Jiajun Bu. China region special section: Big trends: The practice of applying AI to benefit visually impaired people in China. *Communications of the ACM*, 64(11): 70–75, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481623.

Yu:2021:CRSb

[570] Zhiwen Yu, Huadong Ma, Bin Guo, and Zheng Yang. China region special section: Big trends: Crowdsensing 2.0. *Communications of the ACM*, 64 (11):76–80, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481621.

Jia:2021:CRS

[571] Jia Jia, Wei Chen, Kai Yu, Xiaodong He, Jun Du, and Heung-Yeung Shum. China region special section: Big trends: The practice of speech and language processing in China. *Communications of the ACM*, 64(11):81–87, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481625.

Cai:2021:CRS

[572] Liang Cai, Yi Sun, Zibin Zheng, Jiang Xiao, and Weiwei Qiu. China region special section: Big trends: Blockchain in China. *Communications of the ACM*, 64(11):88–93, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3481627.

Kamp:2021:WWW

[573] Poul-Henning Kamp. What went wrong? *Communications of the ACM*, 64(11):94–96, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3475165.

Groger:2021:TNA

[574] Christoph Gröger. There is no AI without data. *Communications of the ACM*, 64(11):98–108, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3448247.

Bastani:2021:IIS

[575] Favyen Bastani, Songtao He, Satvat Jagwani, Edward Park, Sofiane Abbar, Mohammad Alizadeh, Hari Balakrishnan, Sanjay Chawla, Sam Madden, and Mohammad Amin Sadeghi. Inferring and improving street maps with data-driven automation. *Communications of the ACM*, 64(11):109–117, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3450351.

Hentenryck:2021:TPF

[576] Pascal Van Hentenryck. Technical perspective: Finding the sweet spot amid accuracy and performance. *Communications of the ACM*, 64(11):120, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3485594.

Cristian:2021:MIO

[577] Alexandru Cristian, Luke Marshall, Mihai Negrea, Flavius Stoichescu, Peiwei Cao, and Ishai Menache. Multi-itinerary optimization as cloud service. *Communications of the ACM*, 64(11): 121–129, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3485626`.

Aharonov:2021:TPP

[578] Dorit Aharonov and Michael Chapman. Technical perspective: On proofs, entanglement, and games. *Communications of the ACM*, 64(11):130, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3485596`.

Ji:2021:MR

[579] Zhengfeng Ji, Anand Natarajan, Thomas Vidick, John Wright, and Henry Yuen. MIP* = RE. *Communications of the ACM*, 64(11):131–138, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3485628`.

Bainbridge:2021:LBW

[580] William Sims Bainbridge. Last byte: World of hackcraft: an obsessive gamer's quest for the absolutely most significant computer ever. *Communications of the ACM*, 64(11):144–ff, November 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3484694`.

Hanson:2021:ACC

[581] Vicki L. Hanson. From the ACM CEO: Communicating ACM priorities. *Communications of the ACM*, 64(12):5, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3492320`.

Chien:2021:ELG

[582] Andrew A. Chien. Editor's letter: Good, better, best: how sustainable should computing be? *Communications of the ACM*, 64(12):6–7, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3492903`.

Cerf:2021:CHC

[583] Vinton G. Cerf. Cerf's up: On heterogeneous computing. *Communications of the ACM*, 64(12):9, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3492896`.

Staff:2021:LEC

[584] CACM Staff. Letters to the editor: Common ails. *Communications of the ACM*, 64(12):10–12, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3485271`.

Hill:2021:SCB

[585] Robin K. Hill and Carlos Baquero. Seeking out Camille, and being open to others. *Communications of the ACM*, 64(12):14–15, December 2021. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490151.

Monroe:2021:NTS

[586] Don Monroe. News: Trouble at the source. *Communications of the ACM*, 64(12):17–19, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490155.

Kirkpatrick:2021:NRA

[587] Keith Kirkpatrick. News: The road ahead for augmented reality. *Communications of the ACM*, 64(12):20–22, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490317.

Greengard:2021:NWC

[588] Samuel Greengard. News: What is the cost of living online? *Communications of the ACM*, 64(12):23–25, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490165.

Davidson:2021:APF

[589] Jack W. Davidson, Joseph A. Konstan, and Scott E. Delman. ACM publications finances: ACM publications finances for 2020. *Communications of the ACM*, 64(12):26–27, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3488236.

Denning:2021:PIC

[590] Peter J. Denning and Matti Tedre. The profession of IT: Computational thinking for professionals. *Communications of the ACM*, 64(12):30–33, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3491268.

Alstyne:2021:EBD

[591] Marshall W. Van Alstyne, Georgios Petropoulos, Geoffrey Parker, and Bertin Martens. Economic and business dimensions: 'in situ' data rights. *Communications of the ACM*, 64(12): 34–35, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3491270.

Hill:2021:VAL

[592] Mark D. Hill and Vijay Janapa Reddi. Viewpoint: Accelerator-level parallelism. *Communications of the ACM*, 64(12):36–38, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3460970.

Neville-Neil:2021:KVPb

[593] George V. Neville-Neil. Kode vicious: Patent absurdity. *Communications of the ACM*, 64(12):39, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3491297.

Picard:2021:VWE

[594] Rosalind Picard. Viewpoint: What every engineer and computer scientist should know: the biggest contributor to happiness. *Communications of the ACM*, 64(12):40–42, December 2021. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3465999`.

Leqi:2021:WCB

[595] Liu Leqi, Dylan Hadfield-Menell, and Zachary C. Lipton. When curation becomes creation. *Communications of the ACM*, 64(12):44–47, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3475161`.

Gehani:2021:DBP

[596] Ashish Gehani, Raza Ahmad, Hassaan Irshad, Jianqiao Zhu, and Jignesh Patel. Digging into big provenance (with SPADE). *Communications of the ACM*, 64(12):48–56, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3475358`.

Hooker:2021:HL

[597] Sara Hooker. The hardware lottery. *Communications of the ACM*, 64 (12):58–65, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3467017`.

Xu:2021:ACA

[598] Xiaowei Xu, Hailong Qiu, Qianjun Jia, Yuhao Dong, Zeyang Yao, Wen Xie, Huiming Guo, Haiyun Yuan, Jian Zhuang, Meiping Huang, and Yiyu Shi. AI-CHD: an AI-based framework for cost-effective surgical telementoring of congenital heart disease. *Communications of the ACM*, 64(12):66–74, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3450409`.

Chandra:2021:DAS

[599] Ranveer Chandra and Stewart Collis. Digital agriculture for small-scale producers: challenges and opportunities. *Communications of the ACM*, 64 (12):75–84, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3454008`.

Gebru:2021:DD

[600] Timnit Gebru, Jamie Morgenstern, Briana Vecchione, Jennifer Wortman Vaughan, Hanna Wallach, Hal Daumé III, and Kate Crawford. Datasheets for datasets. *Communications of the ACM*, 64(12):86–92, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3458723`.

Adib:2021:TPC

[601] Fadel Adib. Technical perspective: Cooking up a solution to microwave heat distribution. *Communications of the ACM*, 64(12):94, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3491194`.

Jin:2021:SDC

[602] Haojian Jin, Jingxian Wang, Swarun Kumar, and Jason Hong. Software-defined cooking using a microwave oven. *Communications of the ACM*, 64 (12):95–103, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3491196`.

Sherwood:2021:TPR

[603] Timothy Sherwood. Technical perspective: a recipe for protecting against speculation attacks. *Communications of the ACM*, 64(12):104, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3491198`.

Yu:2021:STT

[604] Jiyong Yu, Mengjia Yan, Artem Khyzha, Adam Morrison, Josep Torrellas, and Christopher W. Fletcher. Speculative taint tracking (STT): a comprehensive protection for speculatively accessed data. *Communications of the ACM*, 64(12):105–112, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3491201`.

Hoffmann:2021:LBE

[605] Leah Hoffmann. Last byte: Exploring the promise of quantum computing. *Communications of the ACM*, 64 (12):120–ff, December 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3490319`.

Chien:2022:ELG

[606] Andrew A. Chien. Editor's letter: Is the global computing community irrevocably divided? *Communications of the ACM*, 65(1):5, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3502906`.

Vardi:2022:DWA

[607] Moshe Y. Vardi. Departments: Will AI destroy education? *Communications of the ACM*, 65(1):7, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3501359`.

Small:2022:CPC

[608] Peter M. Small. Career paths in computing: How computing empowered me to tackle big problems in medicine. *Communications of the ACM*, 65(1):9, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3495544`.

Guzdial:2022:HEE

[609] Mark Guzdial. Is higher education an engine of opportunity, or a perpetuator of privilege? *Communications of the ACM*, 65(1):10–11, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3495561`.

Edwards:2022:NSA

[610] Chris Edwards. News: Shrinking artificial intelligence. *Communications of the ACM*, 65(1):12–14, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3495562`.

Shein:2022:NCL

[611] Esther Shein. News: Converting laws to programs. *Communications of the ACM*, 65(1):15–16, January 2022. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3495564.

Kirkpatrick:2022:NMY

[612] Keith Kirkpatrick. News: Monetizing your personal data. *Communications of the ACM*, 65(1):17–19, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3495563.

Cusumano:2022:TSMa

[613] Michael A. Cusumano. Technology strategy and management: Epic versus Apple and the future of app stores. *Communications of the ACM*, 65(1):22–24, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3498659.

Kim:2022:LTA

[614] Pauline T. Kim. Law and technology: Addressing algorithmic discrimination. *Communications of the ACM*, 65(1):25–27, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3498660.

LaMacchia:2022:SLR

[615] Brian LaMacchia. Security: The long road ahead to transition to post-quantum cryptography. *Communications of the ACM*, 65(1):28–30, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3498706.

Hellendoorn:2022:VGC

[616] Vincent J. Hellendoorn and Anand Ashok Sawant. Viewpoint: The growing cost of deep learning for source code. *Communications of the ACM*, 65(1):31–33, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3501261.

Fink:2022:VAI

[617] Olga Fink, Torbjørn Netland, and Stefan Feuerriegel. Viewpoint: Artificial intelligence across company borders. *Communications of the ACM*, 65(1):34–36, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470449.

Matyas:2022:VEI

[618] Vashek Matyas, Kamil Malinka, Lydia Kraus, Lenka Knapova, and Agata Kruzikova. Viewpoint: Even if users do not read security directives, their behavior is not so catastrophic. *Communications of the ACM*, 65(1):37–40, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3471928.

Molino:2022:DML

[619] Piero Molino and Christopher Ré. Declarative machine learning systems. *Communications of the ACM*, 65(1):42–49, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3475167.

Thomson:2022:SA

[620] Patrick Thomson. Static analysis. *Communications of the ACM*, 65(1):50–54, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3486592`.

Kindt:2022:HRS

[621] Philipp H. Kindt, Trinad Chakraborty, and Samarjit Chakraborty. How reliable is smartphone-based electronic contact tracing for COVID-19? *Communications of the ACM*, 65(1):56–67, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3471933`.

Lee:2022:DRD

[622] Gwanhoo Lee and Jaeho Kim. Delivering a rapid digital response to the COVID-19 pandemic. *Communications of the ACM*, 65(1):68–75, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3484732`.

Fortnow:2022:FYP

[623] Lance Fortnow. Fifty years of P vs. NP and the possibility of the impossible. *Communications of the ACM*, 65(1):76–85, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460351`.

Pradel:2022:NSA

[624] Michael Pradel and Satish Chandra. Neural software analysis. *Communications of the ACM*, 65(1):86–96, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3460348`.

Dellaert:2022:NRF

[625] Frank Dellaert. Neural radiance fields explode on the scene: technical perspective. *Communications of the ACM*, 65(1):98, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3498368`.

Mildenhall:2022:NRS

[626] Ben Mildenhall, Pratul P. Srinivasan, Matthew Tancik, Jonathan T. Barron, Ravi Ramamoorthi, and Ren Ng. NeRF: representing scenes as neural radiance fields for view synthesis. *Communications of the ACM*, 65 (1):99–106, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3503250`.

Guerreiro:2022:EGE

[627] Tiago Guerreiro. Eyelid gestures enhance mobile interaction: technical perspective. *Communications of the ACM*, 65(1):107, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3498365`.

Fan:2022:EGP

[628] Mingming Fan, Zhen Li, and Franklin Mingzhe Li. Eyelid gestures for people with motor impairments. *Communications of the ACM*, 65(1):108–115, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3498367`.

Shasha:2022:LBO

[629] Dennis Shasha. Last byte: Orbit design. *Communications of the ACM*, 65(1):120–ff, January 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3498585.

Hanson:2022:ACE

[630] Vicki L. Hanson. From the ACM CEO: Ethics and values in the ACM awards program. *Communications of the ACM*, 65(2):5, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3507697.

Cerf:2022:CHD

[631] Vinton G. Cerf. Cerf's up: How do I rely on thee, smartphone? *Communications of the ACM*, 65(2):7, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3505589.

Hong:2022:TF

[632] Jason Hong. The trouble with Facebook. *Communications of the ACM*, 65(2):8–9, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503775.

Krakovsky:2022:NSW

[633] Marina Krakovsky. News: Solving for why. *Communications of the ACM*, 65(2):11–13, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503777.

Savage:2022:NVD

[634] Neil Savage. News: Virtual duplicates. *Communications of the ACM*, 65(2):14–16, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503798.

Kugler:2022:NAI

[635] Logan Kugler. News: Artificial intelligence, machine learning, and the fight against world hunger. *Communications of the ACM*, 65(2):17–19, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503779.

Williams:2022:ELH

[636] Tiffani L. Williams. Education: The lives of hidden figures matter in computer science education. *Communications of the ACM*, 65(2):20–22, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3506577.

Neville-Neil:2022:KVU

[637] George Neville-Neil. Kode vicious: I unplugged what? *Communications of the ACM*, 65(2):23–24, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3506579.

Haigh:2022:HRB

[638] Thomas Haigh. Historical reflections: Becoming universal. *Communications of the ACM*, 65(2):25–30, February 2022. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3506578.

Tu:2022:VYA

[639] Yu-Ju (Tony) Tu, Shari S. Shang, and Junyi Wu. Viewpoint: Is your autonomous vehicle as smart as you expected? *Communications of the ACM*, 65(2):31–34, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3506574.

Hod:2022:VDS

[640] Shlomi Hod, Karni Chagal-Feferkorn, Niva Elkin-Koren, and Avidor Gal. Viewpoint: Data science meets law. *Communications of the ACM*, 65(2): 35–39, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3506575.

Prem:2022:VBN

[641] Erich Prem. Viewpoint: a brave new world of mediated online discourse. *Communications of the ACM*, 65(2):40–42, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3471929.

Clem:2022:SAG

[642] Timothy Clem and Patrick Thomson. Static analysis at GitHub. *Communications of the ACM*, 65(2):44–51, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486594.

Tiganov:2022:DUS

[643] Daniil Tiganov, Lisa Nguyen Quang Do, and Karim Ali. Designing UIs for static-analysis tools. *Communications of the ACM*, 65(2):52–58, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486600.

Tomasev:2022:RCA

[644] Nenad Tomasev, Ulrich Paquet, Demis Hassabis, and Vladimir Kramnik. Reimagining chess with AlphaZero. *Communications of the ACM*, 65(2): 60–66, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3460349.

Nevo:2022:HTN

[645] Dorit Nevo and Benjamin D. Horne. How topic novelty impacts the effectiveness of news veracity interventions. *Communications of the ACM*, 65(2):68–75, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3460350.

Aho:2022:TLA

[646] Alfred Aho and Jeffrey Ullman. Turing lecture: Abstractions, their algorithms, and their compilers. *Communications of the ACM*, 65(2):76–91, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490685.

Halevy:2022:PIO

[647] Alon Halevy, Cristian Canton-Ferrer, Hao Ma, Umut Ozertem, Patrick Pan-

tel, Marzieh Saeidi, Fabrizio Silvestri, and Ves Stoyanov. Preserving integrity in online social networks. *Communications of the ACM*, 65(2):92–98, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3462671`.

Burke:2022:PRP

[648] Robin Burke. Personalized recommendation of PoIs to people with autism: technical perspective. *Communications of the ACM*, 65(2):100, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3505266`.

Mauro:2022:SPA

[649] Noemi Mauro, Liliana Ardissono, and Federica Cena. Supporting people with autism spectrum disorders in the exploration of PoIs: an inclusive recommender system. *Communications of the ACM*, 65(2):101–109, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3505267`.

Mitra:2022:MST

[650] Sayan Mitra. Model structure takes guesswork out of state estimation: technical perspective. *Communications of the ACM*, 65(2):110, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3505268`.

Berger:2022:WCT

[651] Guillaume O. Berger and Raphael M. Jungers. Worst-case topological entropy and minimal data rate for state estimation of switched linear systems. *Communications of the ACM*, 65(2):111–118, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3505269`.

Clegg:2022:LBAa

[652] Brian Clegg. Last byte: Agent invisible. *Communications of the ACM*, 65(2):120–ff, February 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3501765`.

Vardi:2022:DAE

[653] Moshe Y. Vardi. Departments: ACM, ethics, and corporate behavior. *Communications of the ACM*, 65(3):5, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3516423`.

Sari:2022:CPC

[654] Eunice Sari. Career paths in computing: Changing the world through HCI and UX. *Communications of the ACM*, 65(3):7, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3510541`.

Staff:2022:LED

[655] CACM Staff. Letters to the editor: a division in computer science. *Communications of the ACM*, 65(3):8–9, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3511660`.

Baquero:2022:PPT

[656] Carlos Baquero. Picking publication targets. *Communications of the ACM*, 65(3):10–11, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3510545.

Edwards:2022:NGE

[657] Chris Edwards. News: a group effort. *Communications of the ACM*, 65(3):12–14, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3510550.

Monroe:2022:NAA

[658] Don Monroe. News: Accelerating AI. *Communications of the ACM*, 65(3):15–16, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3510554.

Marks:2022:NAH

[659] Paul Marks. News: Algorithmic hiring needs a human face. *Communications of the ACM*, 65(3):17–19, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3510552.

Samuelson:2022:LSC

[660] Pamela Samuelson. Legally speaking: Copyright implications of emulation programs. *Communications of the ACM*, 65(3):20–22, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512293.

Baecker:2022:CEC

[661] Ronald M. Baecker. Computing ethics: a call to action. *Communications of the ACM*, 65(3):23–25, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512297.

Skirpan:2022:PPC

[662] Michael Skirpan, Maggie Oates, Daragh Byrne, Robert Cunningham, and Lorrie Faith Cranor. Privacy: Is a privacy crisis experienced, a privacy crisis avoided? *Communications of the ACM*, 65(3):26–29, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512325.

Gasser:2022:VFD

[663] Urs Gasser and Virgílio Almeida. Viewpoint: Futures of digital governance. *Communications of the ACM*, 65(3):30–32, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3477502.

Madnick:2022:VBF

[664] Stuart Madnick. Viewpoint: Bursting a few balloons regarding the famous DARPA red balloon challenge. *Communications of the ACM*, 65(3):33–34, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3517127.

Walsh:2022:VTF

[665] Toby Walsh. Viewpoint: The troubling future for facial recognition soft-

ware. *Communications of the ACM*, 65(3):35–36, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474096.

Nadeem:2022:HCA

[666] Ayman Nadeem. Human-centered approach to static-analysis-driven developer tools. *Communications of the ACM*, 65(3):38–45, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486597.

McKusick:2022:CMS

[667] Kirk McKusick. A conversation with: Margo Seltzer and Mike Olson. *Communications of the ACM*, 65(3):46–51, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3498582.

Murphy-Hill:2022:PER

[668] Emerson Murphy-Hill, Ciera Jaspan, Carolyn Egelman, and Lan Cheng. The pushback effects of race, ethnicity, gender, and age in code review. *Communications of the ACM*, 65(3):52–57, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3474097.

Weiser:2022:CWO

[669] Orli Weiser, Yoram M. Kalman, Carmel Kent, and Gilad Ravid. 65 competencies: which ones should your data analytics experts have? *Communications of the ACM*, 65(3):58–66, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3467018.

Mangla:2022:TTD

[670] Tarun Mangla, Esther Showalter, Vivek Adarsh, Kipp Jones, Morgan Vigil-Hayes, Elizabeth Belding, and Ellen Zegura. A tale of three datasets: characterizing mobile broadband access in the U.S. *Communications of the ACM*, 65(3):67–74, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3462672.

DeBie:2022:ADS

[671] Tijl De Bie, Luc De Raedt, José Hernández-Orallo, Holger H. Hoos, Padhraic Smyth, and Christopher K. I. Williams. Automating data science. *Communications of the ACM*, 65(3):76–87, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3495256.

Aldrich:2022:TPH

[672] Jonathan Aldrich. Technical perspective: How do experts learn new programming languages? *Communications of the ACM*, 65(3):90, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511061.

Shrestha:2022:HWG

[673] Nischal Shrestha, Colton Botta, Titus Barik, and Chris Parnin. Here we go again: why is it difficult for developers to learn another programming language? *Communications of the ACM*,

65(3):91–99, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511062.

Chong:2022:TPA

[674] Frederic T. Chong. Technical perspective: Applying design-space exploration to quantum architectures. *Communications of the ACM*, 65(3):100, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511063.

Murali:2022:TSA

[675] Prakash Murali, Dripto M. Debroy, Kenneth R. Brown, and Margaret Martonosi. Toward systematic architectural design of near-term trapped ion quantum computers. *Communications of the ACM*, 65(3):101–109, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511064.

Hoffmann:2022:LBM

[676] Leah Hoffmann. Last byte: Mining energy from 'empty' air. *Communications of the ACM*, 65(3):112–ff, March 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3510556.

Cerf:2022:CPI

[677] Vinton G. Cerf. Cerf's up: Preserving the Internet. *Communications of the ACM*, 65(4):5, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3522782.

Guzdial:2022:BAC

[678] Mark Guzdial. BLOG@CACM: Achieving CS for all could take decades. *Communications of the ACM*, 65(4):6–7, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3516513.

Greengard:2022:NCA

[679] Samuel Greengard. News: Can AI learn to forget? *Communications of the ACM*, 65(4):9–11, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3516514.

Kirkpatrick:2022:NSW

[680] Keith Kirkpatrick. News: Still waiting for self-driving cars. *Communications of the ACM*, 65(4):12–14, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3516517.

Kugler:2022:NTI

[681] Logan Kugler. News: Technology's impact on morality. *Communications of the ACM*, 65(4):15–16, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3516516.

Sako:2022:TSM

[682] Mari Sako. Technology strategy and management: Global supply chain disruption and resilience. *Communications of the ACM*, 65(4):18–21, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3517216.

Neville-Neil:2022:KVG

[683] George V. Neville-Neil. Kode vicious: Getting off the mad path. *Communications of the ACM*, 65(4):25–26, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3517219.

Storey:2022:VEA

[684] Veda C. Storey, Roman Lukyanenko, Wolfgang Maass, and Jeffrey Parsons. Viewpoint: Explainable AI. *Communications of the ACM*, 65(4):27–29, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490699.

Chien:2022:VCD

[685] Andrew A. Chien. Viewpoint: *Communications*' digital initiative and its first digital event. *Communications of the ACM*, 65(4):30, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3517329.

Cauchard:2022:ERS

[686] Jessica R. Cauchard, Matthias Jarke, and Nuria Oliver. Europe Region special section: Welcome. *Communications of the ACM*, 65(4):32–34, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3514188.

Kagan:2022:ERS

[687] Dima Kagan, Michael Fire, and Galit Fuhrmann Alpert. Europe Region special section: Hot topics: Trends in computer science research within European countries. *Communications of the ACM*, 65(4):36–37, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3514089.

Steimle:2022:ERS

[688] Jürgen Steimle. Europe Region special section: Hot topics: On-skin computing. *Communications of the ACM*, 65(4):38–39, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511668.

Smallwood:2022:ERS

[689] Thomas R. C. Smallwood, Véronique Lefebvre, and Linus Bengtsson. Europe Region special section: Hot topics: Mobile phone usage data for disaster response. *Communications of the ACM*, 65(4):40–41, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512998.

Dobrica:2022:ERS

[690] Liliana Dobrica. Europe Region special section: Hot topics: Robotic process automation platform UiPath. *Communications of the ACM*, 65(4):42–43, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511667.

Otto:2022:ERS

[691] Boris Otto. Europe Region special section: Hot topics: A federated infrastructure for European data

spaces. *Communications of the ACM*, 65(4):44–45, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512341.

Alam:2022:ERS

[692] Sadaf R. Alam, Javier Bartolome, Michele Carpene, Kalle Happonen, Jacques-Charles Lafoucriere, and Dirk Pleiter. Europe Region special section: Hot topics: Fenix: a Pan-European federation of supercomputing and cloud e-infrastructure services. *Communications of the ACM*, 65(4):46–47, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511802.

Fettweis:2022:ERS

[693] Gerhard P. Fettweis and Holger Boche. Europe Region special section: Hot topics: On 6G and trustworthiness. *Communications of the ACM*, 65(4): 48–49, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512996.

Kappel:2022:ERS

[694] Gertrude Kappel, Christian Brecher, Matthias Brockmann, and István Koren. Europe Region special section: Hot topics: Internet of Production: entering phase two of Industry 4.0. *Communications of the ACM*, 65(4):50–51, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3514093.

Perino:2022:ERS

[695] Diego Perino, Kleomenis Katevas, Andra Lutu, Eduard Marin, and Nicolas Kourtellis. Europe Region special section: Hot topics: Privacy-preserving AI for future networks. *Communications of the ACM*, 65(4):52–53, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512343.

Curry:2022:ERS

[696] Edward Curry, Fredrik Heintz, Morten Irgens, Arnold W. M. Smeulders, and Stefano Stramigioli. Europe Region special section: Hot topics: Partnership on AI, data, and robotics. *Communications of the ACM*, 65(4):54–55, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3513000.

Hochreiter:2022:ERS

[697] Sepp Hochreiter. Europe Region special section: Hot topics: Toward a broad AI. *Communications of the ACM*, 65(4):56–57, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512715.

Schmeck:2022:ERS

[698] Hartmut Schmeck, Antonello Monti, and Veit Hagenmeyer. Europe Region special section: Big trends: Energy informatics: key elements for tomorrow's energy system. *Communications of the ACM*, 65(4):58–63, April 2022. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511666.

Middleton:2022:ERS

[699] Stuart E. Middleton, Emmanuel Letouzé, Ali Hossaini, and Adriane Chapman. Europe Region special section: Big trends: Trust, regulation, and human-in-the-loop AI: within the European region. *Communications of the ACM*, 65(4):64–68, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511597.

Noia:2022:ERS

[700] Tommaso Di Noia, Nava Tintarev, Panagiota Fatourou, and Markus Schedl. Europe Region special section: Big trends: Recommender systems under European AI regulations. *Communications of the ACM*, 65(4):69–73, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512728.

Peleg:2022:ERS

[701] Mor Peleg, Yuval Shahar, and Silvana Quaglini. Europe Region special section: Big trends: MobiGuide: guiding clinicians and chronic patients anytime, anywhere. *Communications of the ACM*, 65(4):74–79, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511596.

vanderAalst:2022:ERS

[702] Wil van der Aalst. Europe Region special section: Big trends: European leadership in process management. *Communications of the ACM*, 65(4):80–83, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511595.

Ali:2022:ERS

[703] Shaukat Ali, Tao Yue, and Rui Abreu. Europe Region special section: Big trends: When software engineering meets quantum computing. *Communications of the ACM*, 65(4):84–88, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3512340.

Bonawitz:2022:FLP

[704] Kallista Bonawitz, Peter Kairouz, Brendan Mcmahan, and Daniel Ramage. Federated learning and privacy. *Communications of the ACM*, 65(4):90–97, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3500240.

Furini:2022:DTA

[705] Marco Furini, Ombretta Gaggi, Silvia Mirri, Manuela Montangero, Elvira Pelle, Francesco Poggi, and Catia Prandi. Digital twins and artificial intelligence: as pillars of personalized learning models. *Communications of the ACM*, 65(4):98–104, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3478281.

Fresneda:2022:MSE

[706] Jorge Fresneda, Jeremy Hui, and Chelsey Hill. Market segmentation

in the emoji era. *Communications of the ACM*, 65(4):105–112, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3478282`.

Petre:2022:ECB

[707] Marian Petre. Exploring cognitive bias ‘in the wild’: technical perspective. *Communications of the ACM*, 65(4): 114, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3517215`.

Chattopadhyay:2022:CBS

[708] Souti Chattopadhyay, Nicholas Nelson, Audrey Au, Natalia Morales, Christopher Sanchez, Rahul Pandita, and Anita Sarma. Cognitive biases in software development. *Communications of the ACM*, 65(4):115–122, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3517217`.

Cudre-Mauroux:2022:LSC

[709] Philippe Cudré-Mauroux. Leveraging social context for fake news detection: technical perspective. *Communications of the ACM*, 65(4):123, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3517213`.

Nguyen:2022:FLS

[710] Van-Hoang Nguyen, Kazunari Sugiyama, Preslav Nakov, and Min-Yen Kan. FANG: leveraging social context for fake news detection using graph representation. *Communications of the ACM*, 65(4):124–132, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3517214`.

Shasha:2022:LBB

[711] Dennis Shasha. Last byte: Beating the house. *Communications of the ACM*, 65(4):136–ff, April 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3517220`.

Chien:2022:ELFa

[712] Andrew A. Chien. Editor’s letter: Four aspirations for ACM 2032. *Communications of the ACM*, 65(5):5, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3529373`.

Hanson:2022:EA

[713] Vicki L. Hanson and Jennifer T. Chayes. Editorial: ACM at 75. *Communications of the ACM*, 65(5):6–7, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3527143`.

Vardi:2022:DWT

[714] Moshe Y. Vardi. Departments: War and tech (and ACM). *Communications of the ACM*, 65(5):9, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3528570`.

Munawar:2022:CPC

[715] Asim Munawar. Career paths in computing: How a shopping mall

trip inspired me to work in neuro-symbolic AI. *Communications of the ACM*, 65(5):11, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3528571`.

Delman:2022:AOT

[716] Scott E. Delman. ACM Open: Thanks for the progress to date! *Communications of the ACM*, 65(5):12–13, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3529750`.

Staff:2022:AEA

[717] CACM Staff. ACM's election: ACM's 2022 general election: please take this opportunity to vote. *Communications of the ACM*, 65(5):15–23, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3527144`.

Hong:2022:MTC

[718] Jason Hong. Modern tech can't shield your secret identity. *Communications of the ACM*, 65(5):24–25, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524013`.

Edwards:2022:NNN

[719] Chris Edwards. News: Neural networks learn to speed up simulations. *Communications of the ACM*, 65(5):27–29, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524015`.

Mone:2022:NRR

[720] Gregory Mone. News: Raising robovoices. *Communications of the ACM*, 65(5):30–31, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524019`.

Kirkpatrick:2022:NAI

[721] Keith Kirkpatrick. News: Artificial intelligence and mental health. *Communications of the ACM*, 65(5):32–34, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524017`.

Reid:2022:LTT

[722] Blake Reid. Law and technology: Two paths for digital disability law. *Communications of the ACM*, 65(5):36–38, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3527201`.

Wroclawski:2022:SCI

[723] John Wroclawski and Terry Benzel. Security: Cybersecurity as illuminator for the future of computing research. *Communications of the ACM*, 65(5):39–41, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3527202`.

Yadav:2022:ETJ

[724] Aman Yadav, Marie Heath, and Anne Drew Hu. Education: Toward justice in computer science through community, criticality, and citizenship. *Communications of the ACM*,

65(5):42–44, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3527203`.

vonHanxleden:2022:VIV

[725] Reinhard von Hanxleden. Viewpoint: Information: I' vs. 'we' vs. 'they'. *Communications of the ACM*, 65(5):45–47, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3491205`.

Xin:2022:ITC

[726] Reynold Xin, Wes McKinney, Alan Gates, and Chris McCubbin. It takes a community —: the open source challenge. *Communications of the ACM*, 65(5):48–55, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3498568`.

Videla:2022:MCC

[727] Alvaro Videla. Meaning and context in computer programs. *Communications of the ACM*, 65(5):56–58, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3498850`.

Seshia:2022:ECP

[728] Sanjit A. Seshia. Explorations in cyber-physical systems education. *Communications of the ACM*, 65(5):60–69, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3490442`.

Cox:2022:GPL

[729] Russ Cox, Robert Griesemer, Rob Pike, Ian Lance Taylor, and Ken Thompson. The Go programming language and environment. *Communications of the ACM*, 65(5):70–78, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3488716`.

Park:2022:DDE

[730] Jiyong Park and Jongho Kim. A data-driven exploration of the race between human labor and machines in the 21st century. *Communications of the ACM*, 65(5):79–87, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3488376`.

Eslami:2022:AIS

[731] Mohammed Eslami, Aaron Adler, Rajmonda S. Caceres, Joshua G. Dunn, Nancy Kelley-Loughnane, Vanessa A. Varaljay, and Hector Garcia Martin. Artificial intelligence for synthetic biology. *Communications of the ACM*, 65(5):88–97, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3500922`.

Lohmann:2022:WIO

[732] Daniel Lohmann. 'What is the ideal operating system?': technical perspective. *Communications of the ACM*, 65(5):100, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524299`.

Kuo:2022:SCH

[733] Hsuan-Chi Kuo, Jianyan Chen, Sibin Mohan, and Tianyin Xu. Set the configuration for the heart of the OS: on the practicality of operating system kernel debloating. *Communications of the ACM*, 65(5):101–109, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524301`.

Soljanin:2022:BAL

[734] Emina Soljanin. Balancing at all loads: technical perspective. *Communications of the ACM*, 65(5):110, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524292`.

Mallick:2022:RCN

[735] Ankur Mallick, Malhar Chaudhari, Utsav Sheth, Ganesh Palanikumar, and Gauri Joshi. Rateless codes for near-perfect load balancing in distributed matrix–vector multiplication. *Communications of the ACM*, 65(5):111–118, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524298`.

Clegg:2022:LBAb

[736] Brian Clegg. Last byte: Agent provocateur. *Communications of the ACM*, 65(5):120–ff, May 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3517334`.

Chien:2022:ELFb

[737] Andrew A. Chien. Editor's letter: Five years as Editor-in-Chief of *Communications*. *Communications of the ACM*, 65(6):5, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3533672`.

Kotsis:2022:EOA

[738] Gabriele Kotsis and Vicki L. Hanson. Editorial: Our ACM community. *Communications of the ACM*, 65(6):7, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3533677`.

Cerf:2022:CDS

[739] Vinton G. Cerf. Cerf's up: Digital synergy. *Communications of the ACM*, 65(6):9, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3534934`.

Staff:2022:LEM

[740] CACM Staff. Letters to the editor: More on computing's divided future. *Communications of the ACM*, 65(6):10–11, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3532630`.

Sukhov:2022:RMI

[741] Andrei Sukhov. The role of math in IT education. *Communications of the ACM*, 65(6):14–15, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3530685`.

Savage:2022:NAI

[742] Neil Savage. News: Always improving performance. *Communications of the ACM*, 65(6):16–18, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3530689.

Monroe:2022:NDU

[743] Don Monroe. News: a deeper understanding of deep learning. *Communications of the ACM*, 65(6):19–20, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3530686.

Kugler:2022:NAL

[744] Logan Kugler. News: Addressing labor shortages with automation. *Communications of the ACM*, 65(6):21–23, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3530687.

Greengard:2022:NIC

[745] Samuel Greengard. News: Immersion cooling heats up. *Communications of the ACM*, 65(6):24–26, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3530688.

Denning:2022:PII

[746] Peter J. Denning. The profession of IT: Involvement and detachment. *Communications of the ACM*, 65(6):28–31, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3532632.

Neumann:2022:IRT

[747] Peter G. Neumann. Inside risks: Toward total-system trustworthiness. *Communications of the ACM*, 65(6): 32–35, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3532631.

Neville-Neil:2022:KVP

[748] George Neville-Neil. Kode vicious: The planning and care of data. *Communications of the ACM*, 65(6):36–37, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3532633.

Knowles:2022:VOH

[749] Bran Knowles, Kelly Widdicks, Gordon Blair, Mike Berners-Lee, and Adrian Friday. Viewpoint: Our house is on fire. *Communications of the ACM*, 65(6):38–40, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503916.

Kamp:2022:SIS

[750] Poul-Henning Kamp. The software industry is still the problem. *Communications of the ACM*, 65(6):42–43, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3486590.

Shortridge:2022:LAN

[751] Kelly Shortridge and Ryan Petrich. Lamboozling attackers: a new generation of deception. *Communications of the ACM*, 65(6):44–53, June

2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3498578`.

Crusoe:2022:MI

[752] Michael R. Crusoe, Sanne Abeln, Alexandru Iosup, Peter Amstutz, John Chilton, Nebojsa Tijanić, Hervé Ménager, Stian Soiland-Reyes, Bogdan Gavrilović, Carole Goble, and The Cwl Community. Methods included. *Communications of the ACM*, 65(6):54–63, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3486897`.

Stoyanovich:2022:RDM

[753] Julia Stoyanovich, Serge Abiteboul, Bill Howe, H. V. Jagadish, and Sebastian Schelter. Responsible data management. *Communications of the ACM*, 65(6):64–74, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3488717`.

Shah:2022:CEC

[754] Nihar B. Shah. Challenges, experiments, and computational solutions in peer review. *Communications of the ACM*, 65(6):76–87, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3528086`.

Navarro:2022:CPB

[755] Gonzalo Navarro. The compression power of the BWT: technical perspective. *Communications of the ACM*, 65(6):90, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3531443`.

Kempa:2022:RBW

[756] Dominik Kempa and Tomasz Kociumaka. Resolution of the Burrows–Wheeler Transform conjecture. *Communications of the ACM*, 65(6):91–98, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3531445`.

Bigham:2022:CWI

[757] Jeffrey P. Bigham. Computation where the (inter)action is: technical perspective. *Communications of the ACM*, 65(6):99, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3531446`.

Jain:2022:SDL

[758] Dhruv Jain, Hung Ngo, Pratyush Patel, Steven Goodman, Khoa Nguyen, Rachel Grossman-Kahn, Leah Findlater, and Jon Froehlich. SoundWatch: deep learning for sound accessibility on smartwatches. *Communications of the ACM*, 65(6):100–108, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3531447`.

Hoffmann:2022:LBL

[759] Leah Hoffmann. Last byte: Learning new things and avoiding obstacles. *Communications of the ACM*, 65(6):112–ff, June 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3530690`.

Larus:2022:ELC

[760] James Larus. Editor's letter: CACM community. *Communications of the ACM*, 65(7):5, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535269`.

Matthews:2022:EEC

[761] Jeanna Matthews. Editorial: Embracing critical voices. *Communications of the ACM*, 65(7):7, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535268`.

Fincher:2022:EEQ

[762] Sally Fincher and Kathi Fisler. Editorial: Exploring questions and answers in computer science education. *Communications of the ACM*, 65(7):9, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535270`.

Vardi:2022:DAM

[763] Moshe Y. Vardi. Departments: an association of the members, by the members, for the members. *Communications of the ACM*, 65(7):11, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3539619`.

Baquero:2022:DRF

[764] Carlos Baquero and Rosa Cabecinhas. The dynamics of remembering and forgetting. *Communications of the ACM*, 65(7):12–13, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535190`.

Monroe:2022:NBP

[765] Don Monroe. News: Building a practical quantum computer. *Communications of the ACM*, 65(7):15–17, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535191`.

Greengard:2022:NBI

[766] Samuel Greengard. News: Brain implants get real. *Communications of the ACM*, 65(7):18–20, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535193`.

Shein:2022:NUM

[767] Esther Shein. News: Using makeup to block surveillance. *Communications of the ACM*, 65(7):21–23, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535192`.

Samuelson:2022:LSA

[768] Pamela Samuelson. Legally speaking: Apple's challenge to virtualization software. *Communications of the ACM*, 65(7):24–26, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3538636`.

Yang:2022:EBD

[769] Longqi Yang, David Holtz, Sonia Jaffe, and Siddharth Suri. Economic and business dimensions: The future

of information work. *Communications of the ACM*, 65(7):27–29, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3538638.

Cranor:2022:PCM

[770] Lorrie Faith Cranor. Privacy: Cookie monster. *Communications of the ACM*, 65(7):30–32, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3538639.

Mitzenmacher:2022:VAP

[771] Michael Mitzenmacher and Sergei Vassilvitskii. Viewpoint: Algorithms with predictions. *Communications of the ACM*, 65(7):33–35, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3528087.

Gilbert:2022:VWM

[772] Juan E. Gilbert, Stephanie Ludi, David A. Patterson, and Lisa M. Smith. Viewpoint: Words matter. *Communications of the ACM*, 65(7):36, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3539488.

Vachon:2022:KK

[773] Phil Vachon. The keys to the kingdom. *Communications of the ACM*, 65(7):38–41, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511664.

Kamp:2022:STC

[774] Poul-Henning Kamp. Surveillance too cheap to meter. *Communications of the ACM*, 65(7):42–44, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3511661.

Seshia:2022:TVA

[775] Sanjit A. Seshia, Dorsa Sadigh, and S. Shankar Sastry. Toward verified artificial intelligence. *Communications of the ACM*, 65(7):46–55, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503914.

Li:2022:LMP

[776] Hang Li. Language models: past, present, and future. *Communications of the ACM*, 65(7):56–63, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3490443.

Bright:2022:WSS

[777] Curtis Bright, Ilias Kotsireas, and Vijay Ganesh. When satisfiability solving meets symbolic computation. *Communications of the ACM*, 65(7):64–72, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3500921.

Vandin:2022:TPE

[778] Fabio Vandin. Technical perspective: Evaluating sampled metrics is challenging. *Communications of the ACM*, 65(7):74, July 2022. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535334`.

Krichene:2022:SMI

[779] Walid Krichene and Steffen Rendle. On sampled metrics for item recommendation. *Communications of the ACM*, 65(7):75–83, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535335`.

Howe:2022:TPV

[780] Bill Howe. Technical perspective: Visualization search: from sketching to natural language. *Communications of the ACM*, 65(7):84, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535336`.

Siddiqui:2022:EQA

[781] Tarique Siddiqui, Paul Luh, Zesheng Wang, Karrie Karahalios, and Aditya G. Parameswaran. Expressive querying for accelerating visual analytics. *Communications of the ACM*, 65(7):85–94, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535337`.

Shasha:2022:LBE

[782] Dennis Shasha. Last byte: Exclusivity probes. *Communications of the ACM*, 65(7):96–ff, July 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3538640`.

Ioannidis:2022:ELM

[783] Yannis Ioannidis. Editor's letter: To the members of ACM. *Communications of the ACM*, 65(8):5, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3546595`.

Monaco:2022:CCB

[784] Federico Monaco. Cerf's up: Color blind accessibility manifesto. *Communications of the ACM*, 65(8):7, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3543881`.

Meil:2022:ATH

[785] Doug Meil. Advancing in the technical hierarchy. *Communications of the ACM*, 65(8):8–9, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3542813`.

Krakovsky:2022:NFF

[786] Marina Krakovsky. News: Formalizing fairness. *Communications of the ACM*, 65(8):11–13, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3542815`.

Kugler:2022:NCU

[787] Logan Kugler. News: Crossing the uncanny valley. *Communications of the ACM*, 65(8):14–15, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3542817`.

Shein:2022:NNL

[788] Esther Shein. News: Neurotechnology and the law. *Communica-*

tions of the ACM, 65(8):16–18, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3542816.

Brodley:2022:EWU

[789] Carla E. Brodley. Education: Why universities must resist GPA-based enrollment caps in the face of surging enrollments. *Communications of the ACM*, 65(8):20–22, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3544547.

Neville-Neil:2022:KVW

[790] George V. Neville-Neil. Kode Vicious: When should a black box be transparent? *Communications of the ACM*, 65(8):23–24, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3544550.

Shustek:2022:IID

[791] Len Shustek. Interview: an interview with Dana Scott. *Communications of the ACM*, 65(8):25–29, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3544551.

Parashar:2022:VTS

[792] Manish Parashar, Amy Friedlander, Erwin Gianchandani, and Margaret Martonosi. Viewpoint: Transforming science through cyberinfrastructure. *Communications of the ACM*, 65(8):30–32, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3507694.

Mike:2022:VCT

[793] Koby Mike, Noa Ragonis, Rinat B. Rosenberg-Kima, and Orit Hazzan. Viewpoint: Computational thinking in the era of data science. *Communications of the ACM*, 65(8):33–35, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3545109.

Mattioli:2022:FCC

[794] Michael Mattioli. FPGAs in client compute hardware. *Communications of the ACM*, 65(8):36–42, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546035.

Chen:2022:IML

[795] Valerie Chen, Jeffrey Li, Joon Sik Kim, Gregory Plumb, and Ameet Talwalkar. Interpretable machine learning: moving from mythos to diagnostics. *Communications of the ACM*, 65(8):43–50, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546036.

Gyongyosi:2022:AQI

[796] Laszlo Gyongyosi and Sandor Imre. Advances in the quantum Internet. *Communications of the ACM*, 65 (8):52–63, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3524455.

Wang:2022:DC

[797] Yihong Wang, Konstantinos Papangelis, Ioanna Lykourentzou, Vassilis-

Javed Khan, Michael Saker, Yong Yue, and Jonathan Grudin. The dawn of crowdfarms. *Communications of the ACM*, 65(8):64–70, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3490698`.

Abadi:2022:SRD

[798] Daniel Abadi, Anastasia Ailamaki, David Andersen, Peter Bailis, Magdalena Balazinska, Philip A. Bernstein, Peter Boncz, Surajit Chaudhuri, Alvin Cheung, Anhai Doan, Luna Dong, Michael J. Franklin, Juliana Freire, Alon Halevy, Joseph M. Hellerstein, Stratos Idreos, Donald Kossmann, Tim Kraska, Sailesh Krishnamurthy, Volker Markl, Sergey Melnik, Tova Milo, C. Mohan, Thomas Neumann, Beng Chin Ooi, Fatma Ozcan, Jignesh Patel, Andrew Pavlo, Raluca Popa, Raghu Ramakrishnan, Christopher Re, Michael Stonebraker, and Dan Suciu. The Seattle report on database research. *Communications of the ACM*, 65(8):72–79, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3524284`.

Zhang:2022:CDS

[799] Qin Zhang. Can data structures treat us fairly?: technical perspective. *Communications of the ACM*, 65(8):82, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3543843`.

Aumuller:2022:SNN

[800] Martin Aumüller, Sariel Har-Peled, Sepideh Mahabadi, Rasmus Pagh, and Francesco Silvestri. Sampling near neighbors in search for fairness. *Communications of the ACM*, 65(8):83–90, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3543667`.

Zilberman:2022:HLE

[801] Noa Zilberman. hXDP: light and efficient packet processing offload: technical perspective. *Communications of the ACM*, 65(8):91, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3543844`.

Brunella:2022:HES

[802] Marco Spaziani Brunella, Giacomo Belocchi, Marco Bonola, Salvatore Pontarelli, Giuseppe Siracusano, Giuseppe Bianchi, Aniello Cammarano, Alessandro Palumbo, Luca Petrucci, and Roberto Bifulco. hXDP: efficient software packet processing on FPGA NICs. *Communications of the ACM*, 65(8):92–100, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3543668`.

Logan:2022:LBL

[803] E. C. Logan. Last byte: The Luce Goose: a space-traveling bail-bond agent and the ship's resourceful AI chase fugitives across the galaxy. *Communications of the ACM*, 65(8):104–ff, August 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3542853`.

Vardi:2022:DTD

[804] Moshe Y. Vardi. Departments: Technology and democracy. *Communications of the ACM*, 65(9):5, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3550062`.

Sorensen:2022:CPC

[805] Kristian Sørensen. Career paths in computing: The making of an IT strategy consultant. *Communications of the ACM*, 65(9):7, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3546937`.

Kambhampati:2022:CNA

[806] Subbarao Kambhampati. Changing the nature of AI research. *Communications of the ACM*, 65(9):8–9, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3546954`.

Edwards:2022:NCM

[807] Chris Edwards. News: Competition makes big datasets the winners. *Communications of the ACM*, 65(9): 11–13, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3546955`.

Kirkpatrick:2022:NR

[808] Keith Kirkpatrick. News: The road to 6G. *Communications of the ACM*, 65 (9):14–16, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3546959`.

Kugler:2022:NHA

[809] Logan Kugler. News: How AI is driving the esports boom. *Communications of the ACM*, 65(9):17–18, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3546956`.

Guadamuz:2022:LTA

[810] Andres Guadamuz. Law and technology: These are not the apes you are looking for. *Communications of the ACM*, 65(9):20–22, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3548761`.

Kuehn:2022:SSL

[811] Andreas Kuehn. Security: Security by labeling. *Communications of the ACM*, 65(9):23–25, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3548762`.

Denning:2022:PIA

[812] Peter Denning and Roland Ibbett. The profession of IT: The Atlas milestone. *Communications of the ACM*, 65(9): 26–29, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3548781`.

Dally:2022:PCM

[813] William Dally. Point/counterpoint: On the model of computation: point. *Communications of the ACM*, 65(9):

30–32, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3548783.

Vishkin:2022:PCM

[814] Uzi Vishkin. Point/counterpoint: On the model of computation: counterpoint. *Communications of the ACM*, 65(9):32–34, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3548784.

Maraninchi:2022:VLU

[815] Florence Maraninchi. Viewpoint: Let us not put all our eggs in one basket. *Communications of the ACM*, 65 (9):35–37, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3528088.

Gazis:2022:M

[816] Alexandros Gazis and Eleftheria Katsiri. Middleware 101. *Communications of the ACM*, 65(9):38–42, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546958.

Cobbs:2022:PP

[817] Archie L. Cobbs. Persistence programming. *Communications of the ACM*, 65(9):43–47, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546957.

Troncoso:2022:DDP

[818] Carmela Troncoso, Dan Bogdanov, Edouard Bugnion, Sylvain Chatel, Cas Cremers, Seda Gürses, Jean-Pierre Hubaux, Dennis Jackson, James R. Larus, Wouter Lueks, Rui Oliveira, Mathias Payer, Bart Preneel, Apostolos Pyrgelis, Marcel Salathé, Theresa Stadler, and Michael Veale. Deploying decentralized, privacy-preserving proximity tracing. *Communications of the ACM*, 65(9):48–57, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3524107.

Lamport:2022:DBB

[819] Leslie Lamport. Deconstructing the bakery to build a distributed state machine. *Communications of the ACM*, 65(9):58–66, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3513259.

Latah:2022:WSB

[820] Majd Latah and Kubra Kalkan. When SDN and blockchain shake hands. *Communications of the ACM*, 65(9): 68–78, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3500920.

Dressler:2022:PLR

[821] Falko Dressler. Physical layer resilience through deep learning in software radios: technical perspective. *Communications of the ACM*, 65(9):82, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3547130.

Restuccia:2022:PWR

[822] Francesco Restuccia and Tommaso Melodia. Polymorphic wireless receivers. *Communications of the ACM*, 65(9):83–91, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3547131.

Christin:2022:ESM

[823] Nicolas Christin. The effectiveness of security measures: technical perspective. *Communications of the ACM*, 65(9):92, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3547132.

DeKoven:2022:MSP

[824] Louis F. DeKoven, Audrey Randall, Ariana Mirian, Gautam Akiwate, Ansel Blume, Lawrence K. Saul, Aaron Schulman, Geoffrey M. Voelker, and Stefan Savage. Measuring security practices. *Communications of the ACM*, 65(9):93–102, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3547133.

Hoffmann:2022:LBA

[825] Leah Hoffmann. Last byte: Advancing the ability of robots to help. *Communications of the ACM*, 65(9):104–ff, September 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546960.

Chien:2022:ELC

[826] Andrew A. Chien. Editor's letter: Computing's grand challenge for sustainability. *Communications of the ACM*, 65(10):5, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3559163.

Cerf:2022:CQC

[827] Vinton G. Cerf. Cerf's up: Quis custodiet ipsos custodes? *Communications of the ACM*, 65(10):7, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3558590.

Romanov:2022:DIC

[828] Aleksandr Romanov. Driving an innovation contest into crisis. *Communications of the ACM*, 65(10):8–9, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3554917.

Monroe:2022:NNA

[829] Don Monroe. News: Neurosymbolic AI. *Communications of the ACM*, 65 (10):11–13, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3554918.

Garfinkel:2022:NMJ

[830] Simson Garfinkel and Eugene H. Spafford. News: In memoriam: Juris Hartmanis 1928–2022. *Communications of the ACM*, 65(10):14–15, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3559705.

Greengard:2022:NHM

[831] Samuel Greengard. News: Hidden malware ratchets up cybersecurity risks. *Communications of the ACM*, 65(10):16–18, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3554925.

Shein:2022:NAA

[832] Esther Shein. News: Applied AI teaches handwriting. *Communications of the ACM*, 65(10):19–20, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3554919.

Cusumano:2022:TSMb

[833] Michael A. Cusumano. Technology strategy and management: Data platforms and network effects. *Communications of the ACM*, 65(10):22–24, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3555833.

Neville-Neil:2022:KVS

[834] George Neville-Neil. Kode vicious: Securing the company jewels. *Communications of the ACM*, 65(10):25–26, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3555844.

Barik:2022:VSS

[835] Titus Barik, Sumit Gulwani, and Mario Juarez. Viewpoint: Storytelling and science. *Communications of the ACM*, 65(10):27–30, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3526100.

Bockmon:2022:VWY

[836] Ryan Bockmon and Stephen Cooper. Viewpoint: What's your placebo? *Communications of the ACM*, 65 (10):31–33, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3528085.

Butler:2022:WMT

[837] Jenna Butler and Catherine Yeh. Walk a mile in their shoes. *Communications of the ACM*, 65(10):34–41, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3561989.

Kamp:2022:LAS

[838] Poul-Henning Kamp. Linear address spaces. *Communications of the ACM*, 65(10):42–44, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3561991.

Ramachandran:2022:CRA

[839] Umakishore Ramachandran and Zvi Galil. Creating a revolutionary academic program. *Communications of the ACM*, 65(10):46–56, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3503915.

Deshpande:2022:AQC

[840] Advait Deshpande. Assessing the quantum-computing landscape. *Communications of the ACM*, 65(10):57–65, October 2022. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3524109.

Rosenfeld:2022:SYC

[841] Ariel Rosenfeld and Oleg Maksimov. Should young computer scientists stop collaborating with their doctoral advisors? *Communications of the ACM*, 65(10):66–72, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3529089.

Markopoulou:2022:TPT

[842] Athina Markopoulou. Technical perspective: Traffic classification in the era of deep learning. *Communications of the ACM*, 65(10):74, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3556640.

Akbari:2022:TCI

[843] Iman Akbari, Mohammad A. Salahuddin, Leni Ven, Noura Limam, Raouf Boutaba, Bertrand Mathieu, Stephanie Moteau, and Stephane Tuffin. Traffic classification in an increasingly encrypted web. *Communications of the ACM*, 65(10):75–83, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3559439.

Zhang:2022:TPA

[844] Yang Zhang. Technical perspective: Achieve big with devices that track small things. *Communications of the ACM*, 65(10):84, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3556638.

Parizi:2022:APE

[845] Farshid Salemi Parizi, Eric Whitmire, and Shwetak Patel. AuraRing: precise electromagnetic finger tracking. *Communications of the ACM*, 65 (10):85–92, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3556639.

Shasha:2022:LBC

[846] Dennis Shasha. Last byte: Card Nim. *Communications of the ACM*, 65(10):96, October 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3555723.

Vardi:2022:DAL

[847] Moshe Y. Vardi. Departments: Accountability and liability in computing. *Communications of the ACM*, 65(11):5, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565237.

Danielescu:2022:CPC

[848] Andreea Danielescu. Career paths in computing: The many shapes of a computer science career. *Communications of the ACM*, 65(11):7, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3559771.

Staff:2022:LEB

[849] CACM Staff. Letters to the editor: The blood price of unrestricted pri-

vacy. *Communications of the ACM*, 65(11):8–9, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563965.

Hazzan:2022:BDS

[850] Orit Hazzan, Koby Mike, and Herbert Bruderer. BLOG@CACM: Up with data science, and the first programmer. *Communications of the ACM*, 65(11):10–11, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563107.

Edwards:2022:NGB

[851] Chris Edwards. News: Go backward, save energy. *Communications of the ACM*, 65(11):13–15, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563108.

Kirkpatrick:2022:NAM

[852] Keith Kirkpatrick. News: Applying the metaverse. *Communications of the ACM*, 65(11):16–18, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565470.

Kugler:2022:NIV

[853] Logan Kugler. News: The impact of virtual meetings. *Communications of the ACM*, 65(11):19–21, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563109.

Samuelson:2022:LSE

[854] Pamela Samuelson. Legally speaking: an emergent legal right to repair electronic devices. *Communications of the ACM*, 65(11):22–25, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563966.

Cranor:2022:PMA

[855] Lorrie Faith Cranor. Privacy: Mobile-app privacy nutrition labels missing key ingredients for success. *Communications of the ACM*, 65(11):26–28, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563967.

Barr:2022:EWM

[856] Valerie Barr. Education: What must all post-secondary students learn about computing? *Communications of the ACM*, 65(11):29–31, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563968.

Markoff:2022:VRS

[857] John Markoff. Viewpoint: Rethinking Silicon Valley: Stewart Brand's lost journal. *Communications of the ACM*, 65(11):32–34, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3530988.

White:2022:VIF

[858] Ryen W. White. Viewpoint: Intelligent futures in task assistance.

Communications of the ACM, 65(11): 35–39, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3528083.

Kapoor:2022:IRS

[859] Hemangee Kalpesh Kapoor, Mausam, and Venkatesh Raman. India region special section: Welcome back! *Communications of the ACM*, 65(11): 40–42, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3564603.

Balakrishnan:2022:IRS

[860] M. Balakrishnan. India region special section: Big trends: Computing and assistive technology solutions for the visually impaired. *Communications of the ACM*, 65(11):44–47, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3551634.

Veezhinathan:2022:IRS

[861] Kamakoti Veezhinathan. India region special section: Big trends: Building the SHAKTI microprocessor. *Communications of the ACM*, 65(11):48–51, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3556632.

Darke:2022:IRS

[862] Priyanka Darke, Ravindra Metta, Raveendra Kumar Medicherla, and R. Venkatesh. India region special section: Hot topics: Impactful research and tooling for program correctness. *Communications of the ACM*, 65(11):52–53, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3551665.

Warriem:2022:IRS

[863] Jayakrishnan Warriem, Andrew Thangaraj, Madhavan Mukund, and Bharathi Balaji. India region special section: Big trends: Digital interventions at scale: lessons from NPTEL and IIT Madras B.S. degree program. *Communications of the ACM*, 65(11):54–57, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3550473.

Bhowmick:2022:IRS

[864] Plaban Kumar Bhowmick, Partha Pratim Das, Partha Pratim Chakrabarti, and Debarshi Kumar Sanyal. India region special section: Big trends: National digital library of India: democratizing education in India. *Communications of the ACM*, 65(11):58–61, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3550480.

Karkare:2022:IRS

[865] Amey Karkare and Purushottam Kar. India region special section: Hot topics: Prutor: an intelligent learning and management system for programming courses. *Communications of the ACM*, 65(11):62–64, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3550481.

Chaudhuri:2022:IRS

[866] Bidisha Chaudhuri, Meenakshi D'Souza, and Janaki Srinivasan. India region special section: Big trends: Bringing the missing women back: CS education for women in India's engineering institutions. *Communications of the ACM*, 65(11):65–67, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3550490`.

Balasubramanian:2022:IRS

[867] Vineeth N. Balasubramanian. India region special section: Hot topics: Toward explainable deep learning. *Communications of the ACM*, 65 (11):68–69, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3550491`.

Bhatti:2022:IRS

[868] Iram Tariq Bhatti, Mahum Naseer, Muhammad Shafique, and Osman Hasan. India region special section: Hot topics: a formal approach to identifying the impact of noise on neural networks. *Communications of the ACM*, 65(11):70–73, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3550492`.

Belsare:2022:IRS

[869] Hemant Belsare, Milind Sohoni, Rahul Gokhale, Pooja Prasad, Asim R. P., Chirag Marathe, Parth Gupta, Shubhada Sali, Swapnil Patil, and Sudhanshu Deshmukh. India region special section: Big trends: Computing for climate resilience in agriculture. *Communications of the ACM*, 65 (11):74–79, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3554928`.

Singhal:2022:IRS

[870] Shivangi Singhal, Rishabh Kaushal, Rajiv Ratn Shah, and Ponnurangam Kumaraguru. India region special section: Hot topics: Fake news in India: scale, diversity, solution, and opportunities. *Communications of the ACM*, 65 (11):80–81, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3550493`.

Athreya:2022:IRS

[871] Siva Athreya, Gautam I. Menon, and Rajesh Sundaresan. India region special section: Big trends: COVID-19 modeling for India and a roadmap for the future. *Communications of the ACM*, 65(11):82–87, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3557798`.

Aiswarya:2022:IRS

[872] C. Aiswarya, V. Arvind, and Saket Saurabh. India region special section: Big trends: Theory research in India: 2019–2022. *Communications of the ACM*, 65(11):88–93, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3550496`.

Ravindran:2022:IRS

[873] B. Ravindran, Sunita Sarawagi, and Aditi Jain. India region special sec-

tion: Big trends: AI and data science centers in top Indian academic institutions. *Communications of the ACM*, 65 (11):94–97, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3556634.

Mukhopadhyay:2022:IRS

[874] Debdeep Mukhopadhyay. India region special section: Big trends: Cybersecurity in India. *Communications of the ACM*, 65(11):98–102, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3554910.

Kleppmann:2022:RPC

[875] Mark Kleppmann and Peter Alvaro. Research for practice: convergence. *Communications of the ACM*, 65(11): 104–106, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563901.

Falkner:2022:IBN

[876] Matthias Falkner and John Apostolopoulos. Intent-based networking for the enterprise: a modern network architecture. *Communications of the ACM*, 65(11):108–117, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3538513.

Moskovitch:2022:RMS

[877] Yuval Moskovitch and H. V. Jagadish. Reliability at multiple stages in a data analysis pipeline. *Communications of the ACM*, 65(11):118–128, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3500923.

Dantu:2022:PLP

[878] Karthik Dantu. The power of low-power GPS receivers for nanosats: technical perspective. *Communications of the ACM*, 65(11):132, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3559769.

Narayana:2022:HEE

[879] Sujay Narayana, R. Venkatesha Prasad, Vijay S. Rao, Luca Mottola, and T. V. Prabhakar. Hummingbird: an energy-efficient GPS receiver for small satellites. *Communications of the ACM*, 65(11):133–140, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3559770.

Clegg:2022:LBN

[880] Brian Clegg. Last byte: The new wizard of Menlo Park. *Communications of the ACM*, 65(11):144–ff, November 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3470741.

Cerf:2022:CTB

[881] Vinton G. Cerf. Cerf's up: On truth and belief. *Communications of the ACM*, 65(12):5, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3569720.

Baquero:2022:HAG

[882] Carlos Baquero. Is having AI generate text cheating? *Communications of the ACM*, 65(12):6–7, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565976.

Monroe:2022:NQC

[883] Don Monroe. News: Quantum computers and the universe. *Communications of the ACM*, 65(12):9–11, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565977.

Greengard:2022:NSR

[884] Samuel Greengard. News: Swarm robotics moves forward. *Communications of the ACM*, 65(12):12–14, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565979.

Shein:2022:NPP

[885] Esther Shein. News: Preserving the past with immersive technologies. *Communications of the ACM*, 65 (12):15–17, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565978.

Denning:2022:PIC

[886] Peter J. Denning and John Arquilla. The profession of IT: The context problem in artificial intelligence. *Communications of the ACM*, 65(12):18–21, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3567605.

Neville-Neil:2022:KVF

[887] George Neville-Neil. Kode vicious: The four horsemen of an ailing software project. *Communications of the ACM*, 65(12):22–23, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3567606.

Dubhashi:2022:VCU

[888] Devdatt Dubhashi. Viewpoint: Can universities combat the 'wrong kind of AI'? *Communications of the ACM*, 65 (12):24–26, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3522710.

Pentland:2022:VBN

[889] Alex Pentland. Viewpoint: Building a new economy: data, AI, and Web3. *Communications of the ACM*, 65(12):27–29, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3547659.

Barroso:2022:VGP

[890] L. A. Barroso, T. Choudhury, M. Gupta, O. Olukotun, R. A. Popa, D. Song, and David A. Patterson. Viewpoint: Global perspectives of diversity, equity, and inclusion. *Communications of the ACM*, 65(12):30–31, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3548454.

Staff:2022:FRF

[891] CACM Staff. FHIR: reducing friction in the exchange of healthcare data. *Communications of the ACM*, 65 (12):34–41, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3565861`.

Kamp:2022:COO

[892] Poul-Henning Kamp. CSRB's opus one. *Communications of the ACM*, 65 (12):42–44, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3565860`.

Laberge:2022:SPG

[893] Nicholas Laberge, K. Hunter Wapman, Allison C. Morgan, Sam Zhang, Daniel B. Larremore, and Aaron Clauset. Subfield prestige and gender inequality among U.S. computing faculty. *Communications of the ACM*, 65 (12):46–55, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3535510`.

Chen:2022:PCH

[894] Juan Chen, Sheikh Ghafoor, and John Impagliazzo. Producing competent HPC graduates. *Communications of the ACM*, 65(12):56–65, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3538878`.

Dongarra:2022:TLE

[895] Jack J. Dongarra. Turing lecture: The evolution of mathematical software. *Communications of the ACM*, 65 (12):66–72, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3554977`.

Amalfitano:2022:HDJ

[896] Domenico Amalfitano, Ana C. R. Paiva, Alexis Inquel, Luís Pinto, Anna Rita Fasolino, and René Just. How do Java mutation tools differ? *Communications of the ACM*, 65(12): 74–89, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3526099`.

Nowara:2022:SBS

[897] Ewa Nowara, Daniel Mcduff, Ashutosh Sabharwal, and Ashok Veeraraghavan. Seeing beneath the skin with computational photography. *Communications of the ACM*, 65(12):90–100, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3536421`.

Boncz:2022:TPA

[898] Peter Boncz. Technical perspective: The 'art' of automatic benchmark extraction. *Communications of the ACM*, 65(12):104, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3567465`.

Deep:2022:DBQ

[899] Shaleen Deep, Anja Gruenheid, Kruthi Nagaraj, Hiro Naito, Jeff Naughton, and Stratis Viglas. DIAMETRICS: benchmarking query engines at scale. *Communications of the ACM*, 65(12): 105–112, December 2022. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3567464.

Hoffmann:2022:LBF

[900] Leah Hoffmann. Last byte: Finding an alternate way forward with AI. *Communications of the ACM*, 65 (12):120–ff, December 2022. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565980.

Chien:2023:ELC

[901] Andrew A. Chien. Editor's letter: Computing divided: How wide the chasm? *Communications of the ACM*, 66(1):5, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3572994.

Vardi:2023:DHW

[902] Moshe Y. Vardi. Departments: How not to win a tech war. *Communications of the ACM*, 66(1):7, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571077.

Zhou:2023:CPC

[903] Michelle Zhou. Career paths in computing: a computer scientist with a biologist's ambition: Advance humanity. *Communications of the ACM*, 66(1):9, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571064.

Rotenberg:2023:MAF

[904] Marc Rotenberg and Jeremy Roschelle. Making AI fair, and how to use it. *Communications of the ACM*, 66 (1):10–11, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570517.

Edwards:2023:NEC

[905] Chris Edwards. News: Error control begins to shape quantum architectures. *Communications of the ACM*, 66(1):13–15, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570518.

Savage:2023:NOC

[906] Neil Savage. News: The outlook for crypto. *Communications of the ACM*, 66(1):16–18, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570520.

Kugler:2023:NMT

[907] Logan Kugler. News: Making traffic a thing of the past. *Communications of the ACM*, 66(1):19–20, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570519.

Garfinkel:2023:NMF

[908] Simson Garfinkel and Eugene H. Spafford. News: In memoriam: Frederick P. Brooks, Jr. 1931–2022. *Communications of the ACM*, 66(1):21–22, January 2023. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3572995.

Delaney:2023:NRV

[909] John Delaney. News: Remembering Valérie Issarny. *Communications of the ACM*, 66(1):23, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3573217.

Cusumano:2023:TSMa

[910] Michael A. Cusumano. Technology strategy and management: From quantum computing to quantum communications. *Communications of the ACM*, 66(1):24–27, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571450.

Roberts:2023:LTG

[911] Alexandra J. Roberts. Law and technology: Getting a handle on handles. *Communications of the ACM*, 66(1):28–30, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571451.

Massacci:2023:SSU

[912] Fabio Massacci and Giorgio di Tizio. Security: Are software updates useless against advanced persistent threats? *Communications of the ACM*, 66 (1):31–33, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571452.

Welsh:2023:VEP

[913] Matt Welsh. Viewpoint: The end of programming. *Communications of the ACM*, 66(1):34–35, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570220.

Noy:2023:VWC

[914] Natasha Noy and Carole Goble. Viewpoint: Are we cobblers without shoes?: Making computer science data FAIR. *Communications of the ACM*, 66 (1):36–38, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3528574.

Saetra:2023:VAE

[915] Henrik Skaug Sætra, Mark Coeckelbergh, and John Danaher. Viewpoint: The AI ethicist's dirty hands problem. *Communications of the ACM*, 66(1):39–41, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3529751.

Eaton:2023:DLP

[916] Brian Eaton, Jeff Stewart, Jon Tedesco, and N. Cihan Tas. Distributed latency profiling through critical path tracing. *Communications of the ACM*, 66(1):44–51, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570522.

Alagappan:2023:RPC

[917] Ramnatthan Alagappan and Peter Alvaro. Research for practice: Crash consistency. *Communications of the ACM*,

66(1):52–54, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3570521.

Lewis:2023:CAM

[918] Ted G. Lewis. The many faces of resilience. *Communications of the ACM*, 66(1):56–61, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3519262.

Wang:2023:CAA

[919] Luhui Wang, Cong Zhao, Shusen Yang, Xinyu Yang, and Julie Mccann. ACE: Toward application-centric, edge-cloud, collaborative intelligence. *Communications of the ACM*, 66(1):62–73, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3529087.

Chi:2023:CAD

[920] Yuze Chi, Weikang Qiao, Atefeh Sohrabizadeh, Jie Wang, and Jason Cong. Democratizing domain-specific computing. *Communications of the ACM*, 66(1):74–85, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3524108.

Castaneda:2023:RAL

[921] Armando Castañeda, Sergio Rajsbaum, and Michel Raynal. A linearizability-based hierarchy for concurrent specifications. *Communications of the ACM*, 66(1):86–97, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546826.

Conitzer:2023:RHI

[922] Vincent Conitzer, Gillian K. Hadfield, and Shannon Vallor. Research highlights: The impact of auditing for algorithmic bias: Technical perspective. *Communications of the ACM*, 66(1):100, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571152.

Raji:2023:RHA

[923] Inioluwa Deborah Raji and Joy Buolamwini. Research highlights: Actionable auditing revisited: Investigating the impact of publicly naming biased performance results of commercial AI products. *Communications of the ACM*, 66(1):101–108, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571151.

Shasha:2023:LBM

[924] Dennis Shasha. Last byte: Maximal cocktails. *Communications of the ACM*, 66(1):112, January 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571275.

Ioannidis:2023:PMA

[925] Yannis Ioannidis. From the President: To the members of ACM. *Communications of the ACM*, 66(2):5, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3578649.

Cerf:2023:CQC

[926] Vinton G. Cerf. Cerf's up: On QR codes and safety. *Communications of the ACM*, 66(2):7, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3578891`.

Staff:2023:LEN

[927] CACM Staff. Letters to the Editor: Neighborhood watch. *Communications of the ACM*, 66(2):8–11, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576929`.

Mike:2023:WDS

[928] Koby Mike and Orit Hazzan. What is data science? *Communications of the ACM*, 66(2):12–13, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3575663`.

Monroe:2023:NPQ

[929] Don Monroe. News: Post-quantum cryptography. *Communications of the ACM*, 66(2):15–17, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3575664`.

Greengard:2023:NCL

[930] Samuel Greengard. News: Computational linguistics finds its voice. *Communications of the ACM*, 66(2):18–20, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3575666`.

Kirkpatrick:2023:NCA

[931] Keith Kirkpatrick. News: Can AI demonstrate creativity? *Communications of the ACM*, 66(2):21–23, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3575665`.

Ericson:2023:EFW

[932] Barbara Ericson. Education: Four ways to add active learning to computing courses. *Communications of the ACM*, 66(2):26–29, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576930`.

Neville-Neil:2023:KVE

[933] George V. Neville-Neil. Kode vicious: The elephant in the room. *Communications of the ACM*, 66(2):30–31, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576931`.

Johnson:2023:CEE

[934] Deborah G. Johnson and Mario Verdicchio. Computing ethics: Ethical AI is not about AI. *Communications of the ACM*, 66(2):32–34, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576932`.

Isbell:2023:VSE

[935] Charles Isbell, Michael L. Littman, and Peter Norvig. Viewpoint: Software

engineering of machine learning systems. *Communications of the ACM*, 66(2):35–37, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3539783`.

Raffel:2023:VBM

[936] Colin Raffel. Viewpoint: Building machine learning models like open source software. *Communications of the ACM*, 66(2):38–40, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3545111`.

Yellin:2023:VPO

[937] Daniel M. Yellin. Viewpoint: The premature obituary of programming. *Communications of the ACM*, 66(2): 41–44, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3555367`.

Gilbert:2023:VAB

[938] Juan E. Gilbert, Jeremy A. Magruder Waisome, and Simone Smarr. Viewpoint: an analysis of black faculty in CS research departments. *Communications of the ACM*, 66(2):45–47, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571279`.

Bush:2023:Z

[939] Matthew Bush and Atefeh Mashatan. From zero to 100. *Communications of the ACM*, 66(2):48–55, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3573127`.

Loftus:2023:AZT

[940] Michael Loftus, Andrew Vezina, Rick Doten, and Atefeh Mashatan. The arrival of zero trust: What does it mean? *Communications of the ACM*, 66(2):56–62, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3573129`.

Mccauley:2023:CAE

[941] James Mccauley, Scott Shenker, and George Varghese. Contributed articles: Extracting the essential simplicity of the Internet. *Communications of the ACM*, 66(2):64–74, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3547137`.

Baldassarre:2023:CAR

[942] Maria Teresa Baldassarre, Neil Ernst, Ben Hermann, Tim Menzies, and Rahul Yedida. Contributed articles: (Re)Use of research results (is rampant). *Communications of the ACM*, 66(2):75–81, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3554976`.

Reed:2023:CAH

[943] Daniel Reed, Dennis Gannon, and Jack Dongarra. Contributed articles: HPC forecast: Cloudy and uncertain. *Communications of the ACM*, 66(2):82–90, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3552309`.

Shani:2023:RAL

[944] Chen Shani, Jonathan Zarecki, and Dafna Shahaf. Review articles: The lean data scientist: Recent advances toward overcoming the data bottleneck. *Communications of the ACM*, 66(2):92–102, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3551635`.

Vechev:2023:RHT

[945] Martin Vechev. Research highlights: Technical perspective: Beautiful symbolic abstractions for safe and secure machine learning. *Communications of the ACM*, 66(2):104, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576893`.

Drews:2023:RHP

[946] Samuel Drews, Aws Albarghouthi, and Loris D'Antoni. Research highlights: Proving data-poisoning robustness in decision trees. *Communications of the ACM*, 66(2):105–113, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576894`.

Bainbridge:2023:LBA

[947] William Sims Bainbridge. Last byte: Aftermath impact. *Communications of the ACM*, 66(2):116–ff, February 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3578622`.

Vardi:2023:DWR

[948] Moshe Y. Vardi. Departments: Who is responsible around here? *Communications of the ACM*, 66(3):5, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3580584`.

Wolf:2023:CDF

[949] Marty J. Wolf, Joseph A. Konstan, Helena Mentis, Jane Prey, and Harald Störrle. Committee on Disclosure of Findings: After the complaint: What should ACM disclose? *Communications of the ACM*, 66(3):6–11, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3581640`.

Oliver:2023:CPC

[950] Nuria Oliver. Career paths in computing: a philosopher's daughter navigates a career in AI. *Communications of the ACM*, 66(3):13, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3579857`.

Baquero:2023:WEH

[951] Carlos Baquero. What ever happened to peer-to-peer systems? *Communications of the ACM*, 66(3):14–15, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3579633`.

Monroe:2023:NNN

[952] Don Monroe. News: Neural networks for drug discovery and design. *Communications of the ACM*, 66(3):17–19,

March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3579634.

Kirkpatrick:2023:NAS

[953] Keith Kirkpatrick. News: Adding smarts to vending machines drives convenience, efficiency. *Communications of the ACM*, 66(3):20–22, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3579651.

Kugler:2023:NVI

[954] Logan Kugler. News: Virtual influencers in the real world. *Communications of the ACM*, 66(3):23–25, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3579635.

Denning:2023:PIM

[955] Peter J. Denning. The profession of IT: a map for innovation. *Communications of the ACM*, 66(3):28–31, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3581762.

Samuelson:2023:LSLa

[956] Pamela Samuelson. Legally speaking: a legal challenge to algorithmic recommendations. *Communications of the ACM*, 66(3):32–34, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3581763.

Cranor:2023:PMS

[957] Lorrie Faith Cranor and Hana Habib. Privacy: Metrics for success: Why and how to evaluate privacy choice usability. *Communications of the ACM*, 66(3):35–37, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3581764.

Gillespie:2023:VDE

[958] Alexandra Gillespie. Viewpoint: Designing an ethical tech developer. *Communications of the ACM*, 66(3):38–40, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3545110.

Woods:2023:VTP

[959] Daniel W. Woods. Viewpoint: a turning point for cyber insurance. *Communications of the ACM*, 66(3):41–44, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3545795.

Auer:2023:MPL

[960] Raphael Auer, Rainer Böhme, Jeremy Clark, and Didem Demirag. Mapping the privacy landscape for central bank digital currencies. *Communications of the ACM*, 66(3):46–53, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3579316.

Limoncelli:2023:SYO

[961] Thomas A. Limoncelli. Split your overwhelmed teams. *Communications of the ACM*, 66(3):54–56, March

2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3579315.

Berger:2023:CAA

[962] Sara Berger and Francesca Rossi. Contributed articles: AI and neurotechnology: Learning from AI ethics to address an expanded ethics landscape. *Communications of the ACM*, 66(3):58–68, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3529088.

Tsaih:2023:CAA

[963] Rua-Huan Tsaih, Hsin-Lu Chang, Chih-Chun Hsu, and David C. Yen. Contributed articles: The AI tech-stack model. *Communications of the ACM*, 66(3):69–77, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3568026.

Chancellor:2023:CAT

[964] Stevie Chancellor. Contributed articles: Toward practices for human-centered machine learning. *Communications of the ACM*, 66(3):78–85, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3530987.

Ragan-Kelley:2023:RHR

[965] Jonathan Ragan-Kelley. Research highlights: Reconsidering the design of user-schedulable languages: Technical perspective. *Communications of the ACM*, 66(3):88, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3580370.

Hagedorn:2023:RHA

[966] Bastian Hagedorn, Johannes Lenfers, Thomas Koehler, Xueying Qin, Sergei Gorlatch, and Michel Steuwer. Research highlights: Achieving high performance the functional way: Expressing high-performance optimizations as rewrite strategies. *Communications of the ACM*, 66(3):89–97, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3580371.

Hoffmann:2023:LBC

[967] Leah Hoffmann. Last byte: Considering the impact of technology on society. *Communications of the ACM*, 66(3):100–ff, March 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3579652.

Cerf:2023:CSC

[968] Vinton G. Cerf. Cerf's up: Scaffolding as catalyst. *Communications of the ACM*, 66(4):5, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3586159.

Marcus:2023:HBA

[969] Gary Marcus. Hoping for the best as AI evolves. *Communications of the ACM*, 66(4):6–7, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583078.

Monroe:2023:NAI

[970] Don Monroe. News: Artificial intelligence for materials discovery. *Communications of the ACM*, 66(4):9–11, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583080.

Greengard:2023:NAR

[971] Samuel Greengard. News: AI rewrites coding. *Communications of the ACM*, 66(4):12–14, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583083.

Shein:2023:NLC

[972] Esther Shein. News: ... and the computer plays along. *Communications of the ACM*, 66(4):15–17, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583082.

Hall:2023:APF

[973] Wendy Hall, Divesh Srivastava, and Scott E. Delman. ACM publications finances: ACM publications finances for 2021. *Communications of the ACM*, 66(4):18–19, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3586184.

Sako:2023:TSM

[974] Mari Sako. Technology strategy and management: Contracting for artificial intelligence. *Communications of the ACM*, 66(4):20–23, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3584707.

Neville-Neil:2023:KVA

[975] George V. Neville-Neil. Kode vicious: All sliders to the right. *Communications of the ACM*, 66(4):24–25, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3584711.

VanAlstyne:2023:EBD

[976] Marshall Van Alstyne, Michael D. Smith, and Herbert Lin. Economic and business dimensions: Improving section 230, preserving democracy, and protecting free speech. *Communications of the ACM*, 66(4):26–28, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3584710.

Ott:2023:VWR

[977] David Ott, Kenny Paterson, and Dennis Moreau. Viewpoint: Where is the research on cryptographic transition and agility? *Communications of the ACM*, 66(4):29–32, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3567825.

Linkov:2023:VCE

[978] Igor Linkov, Alexandre Ligo, Kelsey Stoddard, Beatrice Perez, Andrew Strelzoffx, Emanuele Bellini, and Alexander Kott. Viewpoint: Cyber efficiency and cyber resilience. *Communications of the ACM*, 66(4):33–37, April

2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3549073.

Patterson:2023:VFC

[979] David A. Patterson. Viewpoint: Faculty can save lives of the elderly. *Communications of the ACM*, 66(4):38, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3555368.

Navas:2023:OVC

[980] Jorge A. Navas and Ashish Gehani. OCCAM-v2: Combining static and dynamic analysis for effective and efficient whole-program specialization. *Communications of the ACM*, 66(4):40–47, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583112.

Kaczorowski:2023:OSC

[981] Maya Kaczorowski, Falcon Momot, George Neville-Neil, and Chris McCubbin. OSS supply-chain security: What will it take? *Communications of the ACM*, 66(4):48–54, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583119.

Nassi:2023:CAP

[982] Ben Nassi, Yisroel Mirsky, Jacob Shams, Raz Ben-Netanel, Dudi Nassi, and Yuval Elovici. Contributed articles: Protecting autonomous cars from phantom attacks. *Communications of the ACM*, 66(4):56–69, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3552308.

Bernal:2023:CAE

[983] Sergio López Bernal, Alberto Huertas Celdrán, and Gregorio Martínez Pérez. Contributed articles: Eight reasons to prioritize brain–computer interface cybersecurity. *Communications of the ACM*, 66(4):68–78, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3535509.

Bentkamp:2023:RAM

[984] Alexander Bentkamp, Jasmin Blanchette, Visa Nummelin, Sophie Tourret, Petar Vukmirović, and Uwe Waldmann. Review articles: Mechanical mathematicians. *Communications of the ACM*, 66(4):80–90, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3557998.

Mottola:2023:RHT

[985] Luca Mottola. Research highlights: Technical perspective: On abstractions and embedded networks. *Communications of the ACM*, 66(4):92, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3583753.

Oostvogels:2023:RHS

[986] Jonathan Oostvogels, Fan Yang, Sam Michiels, and Danny Hughes. Research highlights: Symbol-synchronous buses: Deterministic, low-latency wire-

less mesh networking with LEDs. *Communications of the ACM*, 66(4):93–101, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3583762`.

Shasha:2023:LBC

[987] Dennis Shasha. Last byte: Cooperation in the commons. *Communications of the ACM*, 66(4):104–ff, April 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3584697`.

Vardi:2023:DAP

[988] Moshe Y. Vardi. Departments: ACM for the public good. *Communications of the ACM*, 66(5):5, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3589609`.

Maitland:2023:CPC

[989] Jules Maitland. Career paths in computing: a career built on using technology to help others. *Communications of the ACM*, 66(5):7, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3587170`.

Tray:2023:SDB

[990] Alex Tray. Securing data for business telephones. *Communications of the ACM*, 66(5):8–9, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3586581`.

Edwards:2023:NAS

[991] Chris Edwards. News: AlphaFold spreads through protein science. *Communications of the ACM*, 66(5):10–12, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3586582`.

Savage:2023:NLS

[992] Neil Savage. News: Locking down secure open source software. *Communications of the ACM*, 66(5):13–14, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3586584`.

Shein:2023:NWC

[993] Esther Shein. News: Women in computer science are making strides. *Communications of the ACM*, 66(5):15–17, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3586583`.

Albert:2023:LTD

[994] Kendra Albert and James Grimmelmann. Law and technology: Do the right thing. *Communications of the ACM*, 66(5):18–20, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3587825`.

Lipner:2023:SUT

[995] Steve Lipner and John Pescatore. Security: Updates, threats, and risk management. *Communications of the ACM*, 66(5):21–23, May 2023. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587826.

Guzdial:2023:EPT

[996] Mark Guzdial, Emma Dodoo, Bahare Naimpour, Tamara Nelson-Fromm, and Aadarsh Padiyath. Education: Putting a teaspoon of programming into other subjects. *Communications of the ACM*, 66(5):24–26, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587926.

Steen:2023:VEP

[997] Marc Steen. Viewpoint: Ethics as a participatory and iterative process. *Communications of the ACM*, 66(5): 27–29, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3550069.

Sevilla:2023:VPR

[998] Jaime Sevilla, Anson Ho, and Tamay Besiroglu. Viewpoint: Please report your compute. *Communications of the ACM*, 66(5):30–32, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3563035.

Ruppel:2023:VLT

[999] Emily Ruppel, Sihang Liu, Elba Garza, Sukyoung Ryu, Alexandra Silva, and Talia Ringer. Viewpoint: Long-term mentoring for computer science researchers. *Communications of the ACM*, 66(5):33–35, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3564287.

Amla:2023:VNC

[1000] Nina Amla, Dilma Da Silva, Michael Littman, and Manish Parashar. Viewpoint: NSF on Chien's grand challenge for sustainability. *Communications of the ACM*, 66(5):36–37, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3586992.

Ward:2023:RBS

[1001] Peter Ward, Paul Wankadia, and Kavita Guliani. Reinventing backend subsetting at Google. *Communications of the ACM*, 66(5):40–47, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3588863.

Nagy:2023:RPF

[1002] Stefan Nagy. Research for practice: The fun in fuzzing. *Communications of the ACM*, 66(5):48–50, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3588045.

Feitelson:2023:CCM

[1003] Dror G. Feitelson. From code complexity metrics to program comprehension. *Communications of the ACM*, 66(5):52–61, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3546576.

Broy:2023:DUC

[1004] Manfred Broy and Bernhard Rumpe. Development use cases for semantics-driven modeling languages. *Commu-*

nications of the ACM, 66(5):62–71, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3569927`.

Gorantala:2023:UPF

[1005] Shruthi Gorantala, Rob Springer, and Bryant Gipson. Unlocking the potential of fully homomorphic encryption. *Communications of the ACM*, 66(5):72–81, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3572832`.

Hoefler:2023:DHP

[1006] Torsten Hoefler, Thomas Häner, and Matthias Troyer. Disentangling hype from practicality: On realistically achieving quantum advantage. *Communications of the ACM*, 66(5):82–87, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571725`.

Segev:2023:RHT

[1007] Gil Segev. Technical perspective: Finding connections between one-way functions and Kolmogorov complexity. *Communications of the ACM*, 66(5):90, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3587166`.

Liu:2023:TBC

[1008] Yanyi Liu and Rafael Pass. Toward basing cryptography on the hardness of EXP. *Communications of the ACM*, 66(5):91–99, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3587167`.

Raiola:2023:LBC

[1009] Ralph Raiola. Last byte: ChatGPT, can you tell me a story? An exercise in challenging the true creativity of generative AI. *Communications of the ACM*, 66(5):104–ff, May 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3587998`.

Cerf:2023:CCE

[1010] Vinton G. Cerf. Cerf's up: Connectivity is everything. *Communications of the ACM*, 66(6):5, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3595116`.

Meil:2023:AE

[1011] Doug Meil. AI in the enterprise. *Communications of the ACM*, 66(6):6–7, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3591212`.

Savage:2023:NMC

[1012] Neil Savage. News: Making connections. *Communications of the ACM*, 66(6):8–10, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3591216`.

Greengard:2023:NBA

[1013] Samuel Greengard. News: Better algorithms through faster math. *Communications of the ACM*, 66(6):11–13, June 2023. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3591213.

Kugler:2023:NSS

[1014] Logan Kugler. News: Standards to secure the sensors that power IoT. *Communications of the ACM*, 66(6):14–16, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3591215.

Kirkpatrick:2023:NUA

[1015] Keith Kirkpatrick. News: Using algorithms to deliver disaster aid. *Communications of the ACM*, 66(6):17–19, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3591214.

Garfinkel:2023:NMW

[1016] Simson L. Garfinkel and Eugene H. Spafford. News: In memoriam: William A. Wulf. *Communications of the ACM*, 66(6):20–23, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3594711.

Denning:2023:PICa

[1017] Peter J. Denning. The profession of IT: Can generative AI bots be trusted? *Communications of the ACM*, 66(6):24–27, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3592981.

Neumann:2023:IRC

[1018] Peter G. Neumann. Inside risks: Computer-related risks and remediation challenges. *Communications of the ACM*, 66(6):28–30, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3593005.

Neville-Neil:2023:KVP

[1019] George V. Neville-Neil. Kode vicious: The parchment path? *Communications of the ACM*, 66(6):31–32, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3593006.

Haigh:2023:HRC

[1020] Thomas Haigh. Historical reflections: Conjoined twins: Artificial intelligence and the invention of computer science. *Communications of the ACM*, 66(6):33–37, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3593007.

Beck:2023:VBD

[1021] Micah D. Beck and Terry R. Moore. Viewpoint: Breaking up a digital monopoly. *Communications of the ACM*, 66(6):38–41, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3564239.

Moss:2023:VTE

[1022] Emanuel Moss. Viewpoint: Trust is not enough: Accuracy, error, randomness, and accountability in an algorithmic society. *Communications of the ACM*, 66(6):42–44, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3565479.

Franceschet:2023:VDA

[1023] Massimo Franceschet. Viewpoint: Decentraland: The alleged decentralization of blockchain applications. *Communications of the ACM*, 66(6):45–47, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3563942`.

Falcao:2023:PP

[1024] Gabriel Falcao and João Dinis Ferreira. To PiM or not to PiM. *Communications of the ACM*, 66(6):48–55, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3589995`.

Bird:2023:TFC

[1025] Christian Bird, Denae Ford, Thomas Zimmermann, Nicole Forsgren, Eirini Kalliamvakou, Travis Lowdermilk, and Idan Gazit. Taking flight with Copilot. *Communications of the ACM*, 66(6):56–62, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3589996`.

Fichte:2023:CAS

[1026] Johannes K. Fichte, Daniel Le Berre, Markus Hecher, and Stefan Szeider. Contributed articles: The silent (r)evolution of SAT. *Communications of the ACM*, 66(6):64–72, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3560469`.

Harrison:2023:CAB

[1027] Philippa Harrison. Contributed articles: Buffer-bloated router? How to prevent it and improve performance. *Communications of the ACM*, 66(6):73–77, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3564262`.

Kim:2023:RAS

[1028] Tae Wan Kim and Alan Strudler. Review articles: Should robots have rights or rites? *Communications of the ACM*, 66(6):78–85, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571721`.

Vardi:2023:RAI

[1029] Gal Vardi. Review articles: On the implicit bias in deep-learning algorithms. *Communications of the ACM*, 66(6):86–93, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571070`.

Kemper:2023:RHT

[1030] Alfons Kemper. Research highlights: Technical perspective: FoundationDB performs balancing act. *Communications of the ACM*, 66(6):96, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3592837`.

Zhou:2023:RHF

[1031] Jingyu Zhou, Meng Xu, Alexander Shraer, Bala Namasivayam, Alex Miller, Evan Tschannen, Steve Atherton, Andrew J. Beamon, Rusty Sears, John Leach, Dave Rosenthal, Xin Dong, Will Wilson, Ben Collins, David Scherer, Alec Grieser, Yang Liu, Alvin Moore, Bhaskar Muppana, Xiaoge Su, and Vishesh Yadav. Research highlights: FoundationDB: a distributed key–value store. *Communications of the ACM*, 66(6):97–105, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3592838.

Pointcheval:2023:RHT

[1032] David Pointcheval. Research highlights: Technical perspective: What does provable security mean for cryptographic schemes? *Communications of the ACM*, 66(6):106, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3592836.

DeFeo:2023:RHS

[1033] Luca De Feo, Bertram Poettering, and Alessandro Sorniotti. Research highlights: On the (in)Security of ElGamal in OpenPGP. *Communications of the ACM*, 66(6):107–115, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3592835.

Hoffmann:2023:LBS

[1034] Leah Hoffmann. Last byte: Still networking. *Communications of the ACM*, 66(6):120–ff, June 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3591217.

Vardi:2023:DRA

[1035] Moshe Y. Vardi. Departments: Revisiting ACM's open-conference principle. *Communications of the ACM*, 66(7):5, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3596801.

Elton:2023:CPC

[1036] Hina Elton. Career paths in computing: From UX to product: an intentional career route. *Communications of the ACM*, 66(7):7, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3596212.

Staff:2023:LEE

[1037] CACM Staff. Letters to the Editor: The end is not clear. *Communications of the ACM*, 66(7):9, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3596710.

Sze:2023:BUP

[1038] Vivienne Sze. BLOG@CACM: Unleashing the power of deep learning. *Communications of the ACM*, 66(7):10–11, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3595956.

Shasha:2023:LBS

[1039] Dennis Shasha. Last byte: Sampling the goods. *Communications of the ACM*, 66(7):140–ff, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3595917.

Edwards:2023:NAO

[1040] Chris Edwards. News: Accelerating optical communications with AI. *Communications of the ACM*, 66(7):13–15, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3595957`.

Savage:2023:NRC

[1041] Neil Savage. News: The rise of the chatbots. *Communications of the ACM*, 66(7):16–17, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3596206`.

Mone:2023:NOD

[1042] Gregory Mone. News: Outsmarting deepfake video. *Communications of the ACM*, 66(7):18–19, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3595958`.

Samuelson:2023:LSLb

[1043] Pamela Samuelson. Legally speaking: Legal challenges to generative AI, Part I. *Communications of the ACM*, 66(7):20–23, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3597151`.

Acquisti:2023:PLL

[1044] Alessandro Acquisti and Ryan Steed. Privacy: Learning to live with privacy-preserving analytics. *Communications of the ACM*, 66(7):24–27, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3597173`.

Johnson:2023:VFA

[1045] Jeff A. Johnson and Daniel H. Bullock. Viewpoint: Fragility in AIs using artificial neural networks. *Communications of the ACM*, 66(7):28–31, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571280`.

Zaman:2023:VLA

[1046] Tariq Zaman. Viewpoint: Lost in Afghanistan: Can the world take ICT4D seriously? *Communications of the ACM*, 66(7):32–34, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3574156`.

Salim:2023:EAO

[1047] Flora Salim, Bingsheng He, and Ken ichi Kawarabayashi. Welcome. *Communications of the ACM*, 66(7):36–38, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3598580`. East Asia and Oceania Region Special Section.

Shortridge:2023:OCM

[1048] Kelly Shortridge and Josiah Dykstra. Opportunity cost and missed chances in optimizing cybersecurity. *Communications of the ACM*, 66(7):96–104, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3597464`.

Ozsu:2023:CAD

[1049] M. Tamer Özsu. Contributed articles: Data science — a systematic treatment. *Communications of the ACM*, 66(7):106–116, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3582491`.

Medvedev:2023:RAT

[1050] Paul Medvedev. Review articles: Theoretical analysis of sequencing bioinformatics algorithms and beyond. *Communications of the ACM*, 66(7):118–125, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571723`.

Sitaraman:2023:RHO

[1051] Ramesh K. Sitaraman. Research highlights: Opening the door to SSD algorithmics: Technical perspective. *Communications of the ACM*, 66(7):128, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3596204`.

Lange:2023:RHO

[1052] Tomer Lange, Joseph (Seffi) Naor, and Gala Yadgar. Research highlights: Offline and online algorithms for SSD management. *Communications of the ACM*, 66(7):129–137, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3596205`.

Spina:2023:BTH

[1053] Damiano Spina, Mark Sanderson, Daniel Angus, Gianluca Demartini, Dana Mckay, Lauren L. Saling, and Ryen W. White. Big trends: Human–AI cooperation to tackle misinformation and polarization. *Communications of the ACM*, 66(7):40–45, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3588431`. East Asia and Oceania Region Special Section.

Kim:2023:BTS

[1054] Ji-Hoon Kim, Sungyeob Yoo, and Joo-Young Kim. Big trends: South Korea's nationwide effort for AI semiconductor industry. *Communications of the ACM*, 66(7):46–51, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3587264`. East Asia and Oceania Region Special Section.

Luo:2023:BTA

[1055] Tao Luo, Weng-Fai Wong, Rick Siow Mong Goh, Anh Tuan Do, Zhixian Chen, Haizhou Li, Wenyu Jiang, and Weiyun Yau. Big trends: Achieving green AI with energy-efficient deep learning using neuromorphic computing. *Communications of the ACM*, 66(7):52–57, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3588591`. East Asia and Oceania Region Special Section.

Kitsuregawa:2023:BTA

[1056] Masaru Kitsuregawa, Shigeo Urushidani, Kazutsuna Yamaji, Hiroki Takakura, Ichiro Hasuo, Imari Sato, Fuyuki Ishikawa, Isao Echizen, and Kensaku Mori. Big trends: Activities of national institute of informatics in Japan. *Communications of the ACM*, 66(7):58–63, July 2023. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589736. East Asia and Oceania Region Special Section.

Lu:2023:HTO

[1057] Qinghua Lu, Liming Zhu, Xiwei Xu, Jon Whittle, Didar Zowghi, and Aurelie Jacquet. Hot topics: Operationalizing responsible AI at scale: CSIRO Data61's pattern-oriented responsible AI engineering approach. *Communications of the ACM*, 66(7):64–66, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589946. East Asia and Oceania Region Special Section.

Luczak-Roesch:2023:HTV

[1058] Markus Luczak-Roesch, Matthias Galster, and Kevin Shedlock. Hot topics: The veracity grand challenge in computing: a perspective from Aotearoa New Zealand. *Communications of the ACM*, 66(7):67–69, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589154. East Asia and Oceania Region Special Section.

Bhowmick:2023:HTC

[1059] Sourav S. Bhowmick. Hot topics: CLOSET: Data-driven COI detection and management in peer-review venues. *Communications of the ACM*, 66(7):70–71, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589151. East Asia and Oceania Region Special Section.

Ogata:2023:HTL

[1060] Hiroaki Ogata, Rwitajit Majumdar, and Brendan Flanagan. Hot topics: Learning and evidence analytics framework bridges research and practice for educational data science. *Communications of the ACM*, 66(7):72–74, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589660. East Asia and Oceania Region Special Section.

Bui:2023:HTB

[1061] Hung Bui, Minh Hoai Nguyen, Dat Quoc Nguyen, Linh Pham, and Dinh Phung. Hot topics: Building and nurturing AI development in Vietnam. *Communications of the ACM*, 66(7):75–76, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589948. East Asia and Oceania Region Special Section.

Zhang:2023:HTP

[1062] Hao Zhang, Jun Yang, Cheng Chen, Siqi Wang, Jiashu Li, and Mian Lu. Hot topics: Principles and practices of real-time feature computing platforms for ML. *Communications of the ACM*, 66(7):77–78, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589224. East Asia and Oceania Region Special Section.

Gramoli:2023:HTF

[1063] Vincent Gramoli and Qiang Tang. Hot topics: The future of blockchain consensus. *Communications of the*

ACM, 66(7):79–80, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589225. East Asia and Oceania Region Special Section.

Putra:2023:HTC

[1064] Guntur Dharma Putra, Sidra Malik, Volkan Dedeoglu, Raja Jurda, and Salil S. Kanhere. Hot topics: Challenges in designing blockchain for cyber-physical systems. *Communications of the ACM*, 66(7):81–82, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589648. East Asia and Oceania Region Special Section.

Bhowmick:2023:HTD

[1065] Sourav S. Bhowmick and Byron Choi. Hot topics: To draw is human: Toward no-code subgraph search. *Communications of the ACM*, 66(7):83–84, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589153. East Asia and Oceania Region Special Section.

Ikoma:2023:HTD

[1066] Eiji Ikoma and Masaru Kitsuregawa. Hot topics: DIAS — Earth environment Data Integration and Analysis System. *Communications of the ACM*, 66(7):85–86, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589233. East Asia and Oceania Region Special Section.

Georgakopoulos:2023:HTD

[1067] Dimitrios Georgakopoulos and Prem Prakash Jayaraman. Hot topics: Digital twins and dependency/constraint-aware AI for digital manufacturing. *Communications of the ACM*, 66(7):87–88, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589662. East Asia and Oceania Region Special Section.

Withana:2023:HTC

[1068] Anusha Withana. Hot topics: Codesigning personalized assistive devices using personal fabrication. *Communications of the ACM*, 66(7):89–90, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589150. East Asia and Oceania Region Special Section.

Inami:2023:HTJ

[1069] Masahiko Inami. Hot topics: JIZAI body: Human-machine integration based on Asian thought. *Communications of the ACM*, 66(7):91, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3592539. East Asia and Oceania Region Special Section.

Kawahara:2023:HTF

[1070] Yoshihiro Kawahara. Hot topics: Fusing creativity and innovation in Asia's manufacturing industry. *Communications of the ACM*, 66(7):92–93, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/

doi/10.1145/3589949. East Asia and Oceania Region Special Section.

Higashino:2023:HTM

[1071] Teruo Higashino, Hidetoshi Kotera, and Yasushi Yagi. Hot topics: MEXT Society 5.0 realization research support project. *Communications of the ACM*, 66(7):94–95, July 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3589232. East Asia and Oceania Region Special Section.

Chien:2023:ELG

[1072] Andrew A. Chien. Editor's letter: GenAI: Giga$, TeraWatt-hours, and GigaTons of CO_2. *Communications of the ACM*, 66(8):5, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3606254.

Cerf:2023:CLL

[1073] Vinton G. Cerf. Cerf's up: Large language models. *Communications of the ACM*, 66(8):7, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3606337.

Hong:2023:TFC

[1074] Jason I. Hong. Teaching the FATE community about privacy. *Communications of the ACM*, 66(8):10–11, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3603718.

Monroe:2023:NCA

[1075] Don Monroe. News: Computer-assisted proofs take on fluid flow. *Communications of the ACM*, 66(8):12–14, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3603745.

Greengard:2023:NMD

[1076] Samuel Greengard. News: 3D modeling draws on AI. *Communications of the ACM*, 66(8):15–16, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3603748.

Kirkpatrick:2023:NCF

[1077] Keith Kirkpatrick. News: The carbon footprint of artificial intelligence. *Communications of the ACM*, 66(8):17–19, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3603746.

Williams:2023:CEV

[1078] Tom Williams, Cynthia Matuszek, Kristiina Jokinen, Raj Korpan, James Pustejovsky, and Brian Scassellati. Computing ethics: Voice in the machine: Ethical considerations for language-capable robots. *Communications of the ACM*, 66(8):20–23, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3604632.

Shapiro:2023:EIC

[1079] R. Benjamin Shapiro, Kayla DesPortes, and Betsy DiSalvo. Education: Improving computing education research through valuing design. *Communications of the ACM*, 66(8):24–26, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3604633`.

Neville-Neil:2023:KVHa

[1080] George Neville-Neil. Kode vicious: The human touch. *Communications of the ACM*, 66(8):27–28, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3604634`.

Temiz:2023:VSB

[1081] Hakan Temiz. Viewpoint: SI and binary prefixes: Clearing the confusion. *Communications of the ACM*, 66(8):29–31, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3572027`.

Izquierdo:2023:VMT

[1082] Javier Luis Cánovas Izquierdo and Jordi Cabot. Viewpoint: For a more transparent governance of open source. *Communications of the ACM*, 66(8):32–34, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3570635`.

Sheh:2023:VWY

[1083] Wesley Sheh and Joel Nishimura. Viewpoint: Why you should be able to make your own individualized, digital nano-currency. *Communications of the ACM*, 66(8):35–38, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3583987`.

Kuipers:2023:VAS

[1084] Benjamin Kuipers. Viewpoint: AI and society: Ethics, trust, and cooperation. *Communications of the ACM*, 66(8):39–42, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3583134`.

Garfinkel:2023:SYT

[1085] Simson Garfinkel and Jon Stewart. Sharpening your tools. *Communications of the ACM*, 66(8):44–52, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3600098`.

Norvig:2023:MTJ

[1086] Peter Norvig, Alfred Spector, Chris Wiggins, Jeannette M. Wing, Ben Fried, and Michael Tingley. More than just algorithms. *Communications of the ACM*, 66(8):53–61, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3600099`.

Hope:2023:CIS

[1087] Tom Hope, Doug Downey, Daniel S. Weld, Oren Etzioni, and Eric Horvitz. A computational inflection for scientific discovery. *Communications of the ACM*, 66(8):62–73, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3576896`.

Oosthoek:2023:TTM

[1088] Kris Oosthoek, Jack Cable, and Georgios Smaragdakis. A tale of two markets: Investigating the ransomware payments economy. *Communications of the ACM*, 66(8):74–83, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3582489`.

Jarrahi:2023:PDC

[1089] Mohammad Hossein Jarrahi, Ali Memariani, and Shion Guha. The principles of data-centric AI. *Communications of the ACM*, 66(8):84–92, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3571724`.

Alouf:2023:CWU

[1090] Sara Alouf. Can we uncover private backbone infrastructures? *Communications of the ACM*, 66(8):94, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3604621`.

Salamatian:2023:MVC

[1091] Loqman Salamatian, Scott Anderson, Joshua Mathews, Paul Barford, Walter Willinger, and Mark Crovella. A manifold view of connectivity in the private backbone networks of hyperscalers. *Communications of the ACM*, 66(8):95–103, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3604620`.

Richards:2023:PRW

[1092] John Richards. Pandemics, remote work, and accessibility. *Communications of the ACM*, 66(8):104, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3604623`.

Mack:2023:MAV

[1093] Kelly Mack, Maitraye Das, Dhruv Jain, Danielle Bragg, John Tang, Andrew Begel, Erin Beneteau, Josh Urban Davis, Abraham Glasser, Joon Sung Park, and Venkatesh Potluri. Mixed abilities and varied experiences: a group autoethnography of a virtual summer internship. *Communications of the ACM*, 66(8):105–113, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3604622`.

Kaye:2023:LBS

[1094] Jofish Kaye. Last byte: *L*-space and large language models. *Communications of the ACM*, 66(8):116–ff, August 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3596900`.

Vardi:2023:DRT

[1095] Moshe Y. Vardi. Departments: To regulate tech, nullify click-through contracts. *Communications of the ACM*, 66(9):5, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3609981`.

Rivera:2023:CPC

[1096] Fiona Rivera. Career paths in computing: Finding the right mix of creativity and technology. *Communications of the ACM*, 66(9):7, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3607823`.

Baquero:2023:BYE

[1097] Carlos Baquero. BLOG@CACM: a year embedded in the Crypto-NFT space. *Communications of the ACM*, 66(9):8–9, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3607876`.

Edwards:2023:NHA

[1098] Chris Edwards. News: Historic algorithms help unlock shortest-path problem breakthrough. *Communications of the ACM*, 66(9):10–12, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3607866`.

Shein:2023:NSL

[1099] Esther Shein. News: Shining a light on the Dark Web. *Communications of the ACM*, 66(9):13–14, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3607867`.

Greengard:2023:NDW

[1100] Samuel Greengard. News: Distilling what we know. *Communications of the ACM*, 66(9):15–17, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3607891`.

Narechania:2023:LTC

[1101] Tejas N. Narechania. Law and technology: Closing our digital divides. *Communications of the ACM*, 66(9):18–20, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3608964`.

Zanero:2023:SCA

[1102] Stefano Zanero. Security: Coming of age. *Communications of the ACM*, 66(9):21–23, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3608965`.

Denning:2023:PIS

[1103] Peter J. Denning. The profession of IT: The smallness of large language models. *Communications of the ACM*, 66(9):24–27, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3608966`.

Wu:2023:ODA

[1104] Weiyue Wu and Shaoshan Liu. Opinion: Dilemma of the artificial intelligence regulatory landscape. *Communications of the ACM*, 66(9):28–31, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3584665`.

Ligett:2023:OWN

[1105] Katrina Ligett and Kobbi Nissim. Opinion: We need to focus on how our data is used, not just how it is shared. *Communications of the ACM*, 66(9):32–34, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3572912.

Dershowitz:2023:ORR

[1106] Nachum Dershowitz and Rakesh M. Verma. Opinion: Rebutting rebuttals. *Communications of the ACM*, 66 (9):35–41, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3584664.

Yasseri:2023:OCC

[1107] Taha Yasseri and Filippo Menczer. Opinion: Can crowdsourcing rescue the social marketplace of ideas? *Communications of the ACM*, 66(9):42–45, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3578645.

Levine:2023:CCA

[1108] Edlyn V. Levine. Cargo cult AI. *Communications of the ACM*, 66(9): 46–51, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3606946.

Kaffes:2023:RPS

[1109] Kostis Kaffes and Peter Alvaro. Research for practice: OS scheduling. *Communications of the ACM*, 66(9): 52–54, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3606945.

Zhao:2023:RHC

[1110] Shengdong Zhao, Felicia Tan, and Katherine Fennedy. Research: Heads-up computing moving beyond the device-centered paradigm. *Communications of the ACM*, 66(9):56–63, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3571722.

Bakirtzis:2023:RDC

[1111] Georgios Bakirtzis, Steven Carr, David Danks, and Ufuk Topcu. Research: Dynamic certification for autonomous systems. *Communications of the ACM*, 66 (9):64–72, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3574133.

Knowles:2023:RHA

[1112] Bran Knowles, Jason D'Cruz, John T. Richards, and Kush R. Varshney. Research: Humble AI. *Communications of the ACM*, 66(9):73–79, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587035.

Kounev:2023:RSC

[1113] Samuel Kounev, Nikolas Herbst, Cristina L. Abad, Alexandru Iosup, Ian Foster, Prashant Shenoy, Omer Rana, and Andrew A. Chien. Research: Serverless computing: What it is, and what it is not? *Communications of the ACM*, 66(9):80–92, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587249.

Woodruff:2023:RHT

[1114] David P. Woodruff. Research highlights: Tapping the link between algorithmic model counting and streaming: Technical perspective. *Communications of the ACM*, 66(9):94, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3607825.

Pavan:2023:RHM

[1115] A. Pavan, N. V. Vinodchandran, Arnab Bhattacharyya, and Kuldeep S. Meel. Research highlights: Model counting meets distinct elements. *Communications of the ACM*, 66(9):95–102, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3607824.

Hoffmann:2023:LBH

[1116] Leah Hoffmann. Last byte: How many ways can you teach a robot? *Communications of the ACM*, 66(9): 104–ff, September 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3608109.

Cerf:2023:CDS

[1117] Vinton G. Cerf. Cerf's up: The dilemma of scale. *Communications of the ACM*, 66(10):5, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3617385.

Marcus:2023:BCA

[1118] Gary Marcus. BLOG@CACM: Controlling AI. *Communications of the ACM*, 66(10):6–7, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3613250.

Mone:2023:NBD

[1119] Gregory Mone. News: Biomedical digital twins. *Communications of the ACM*, 66(10):9–11, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3613251.

Kugler:2023:NFR

[1120] Logan Kugler. News: The fight to repair. *Communications of the ACM*, 66(10):12–14, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3613252.

Geer:2023:NUP

[1121] David Geer. News: Using psychology to bolster cybersecurity. *Communications of the ACM*, 66(10):15–17, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3613253.

Cusumano:2023:TSMb

[1122] Michael A. Cusumano. Technology strategy and management: Generative AI as a new innovation platform. *Communications of the ACM*, 66(10):18–21, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615859.

Leveson:2023:IRC

[1123] Nancy G. Leveson and John P. Thomas. Inside risks: Certification of safety-critical systems. *Communications of the ACM*, 66(10):22–26, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615860.

Neville-Neil:2023:KVS

[1124] George V. Neville-Neil. Kode vicious: Stone knives and bear skins. *Communications of the ACM*, 66(10):27–29, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615861.

Kuyenga:2023:OBC

[1125] Madison C. Allen Kuyenga, Eleanor R. Glover Gladney, Michael Lachney, Marwin McKnight, Theodore S. Ransaw, Dominick Sanders, and Aman Yadav. Opinion: Barbershop computing. *Communications of the ACM*, 66(10):30–33, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3586990.

Bessen:2023:OHS

[1126] James Bessen. Opinion: How software stifles competition and innovation. *Communications of the ACM*, 66(10):34–36, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3588898.

Bar:2023:ONT

[1127] Dominik Bär, Nicolas Pröllochs, and Stefan Feuerriegel. Opinion: New threats to society from free-speech social media platforms. *Communications of the ACM*, 66(10):37–40, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587094.

Skarbez:2023:OIT

[1128] Rick Skarbez, Missie Smith, and Mary Whitton. Opinion: It is time to let go of ‘virtual reality’. *Communications of the ACM*, 66(10):41–43, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3590959.

Tellman:2023:DFC

[1129] Zachary Tellman. Designing a framework for conversational interfaces. *Communications of the ACM*, 66(10):44–49, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3605572.

Casari:2023:BR

[1130] Amanda Casari, Julia Ferraioli, and Juniper Lovato. Beyond the repository. *Communications of the ACM*, 66(10):50–55, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3605160.

Seymour:2023:RBD

[1131] Michael Seymour, Kai Riemer, Lingyao Yuan, and Alan R. Dennis. Research: Beyond deep fakes. *Communications of the ACM*, 66(10):56–67, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3584973.

Hearst:2023:RSI

[1132] Marti A. Hearst. Research: Show it or tell it? Text, visualization, and their combination. *Communications of the ACM*, 66(10):68–75, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3593580.

Hirzel:2023:RLC

[1133] Martin Hirzel. Research: Low-code programming models. *Communications of the ACM*, 66(10):76–85, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587691.

Barbosa:2023:RGE

[1134] Haniel Barbosa, Clark Barrett, Byron Cook, Bruno Dutertre, Gereon Kremer, Hanna Lachnitt, Aina Niemetz, Andres Nötzli, Alex Ozdemir, Mathias Preiner, Andrew Reynolds, Cesare Tinelli, and Yoni Zohar. Research: Generating and exploiting automated reasoning proof certificates. *Communications of the ACM*, 66(10):86–95, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587692.

Sekar:2023:RHR

[1135] Shreyas Sekar. Research highlights: a rare glimpse of tracking fake reviews: Technical perspective. *Communications of the ACM*, 66(10):97, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615429.

He:2023:RHL

[1136] Sherry He, Brett Hollenbeck, and Davide Proserpio. Research highlights: Leveraging social media to buy fake reviews. *Communications of the ACM*, 66(10):98–105, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615428.

Huang:2023:RHS

[1137] Polly Huang. Research highlights: Sensing interaction with everyday objects using near-field communication in textiles: Technical perspective. *Communications of the ACM*, 66(10):106, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615451.

Wang:2023:RHL

[1138] Jingxian Wang, Junbo Zhang, Ke Li, Chengfeng Pan, Carmel Majidi, and Swarun Kumar. Research highlights: Locating everyday objects using NFC textiles. *Communications of the ACM*, 66(10):107–114, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3615450.

Shasha:2023:LBT

[1139] Dennis Shasha. Last byte: Tidy towers. *Communications of the ACM*, 66(10):116–ff, October 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3614559.

Vardi:2023:DWC

[1140] Moshe Y. Vardi. Departments: What came first, math or computing? *Communications of the ACM*, 66(11):5, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625734.

Meil:2023:BLP

[1141] Doug Meil. BLOG@CACM: Lessons from PL/I: a most ambitious programming language. *Communications of the ACM*, 66(11):6–7, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623564.

Monroe:2023:NQS

[1142] Don Monroe. News: Quantum speedup for the Fast Fourier Transform? *Communications of the ACM*, 66(11):8–10, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623641.

Kugler:2023:NWO

[1143] Logan Kugler. News: What's old is new again. *Communications of the ACM*, 66 (11):11–12, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624009.

Kirkpatrick:2023:NAI

[1144] Keith Kirkpatrick. News: Accessibility and inclusion through technology. *Communications of the ACM*, 66 (11):13–15, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623642.

Samuelson:2023:LSL

[1145] Pamela Samuelson. Legally speaking: Legal challenges to generative AI, Part II. *Communications of the ACM*, 66 (11):16–19, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625251.

Jacobson:2023:OBC

[1146] Sheldon H. Jacobson. Opinion: On being a computer science communicator. *Communications of the ACM*, 66 (11):20–22, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3588899.

Flaherty:2023:EBD

[1147] Sean Flaherty and Gregg Gordon. Economic and business dimensions: The gamification of academia. *Communications of the ACM*, 66(11):23–24, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625253.

Warden:2023:OML

[1148] Pete Warden, Matthew Stewart, Brian Plancher, Sachin Katti, and Vijay Janapa Reddi. Opinion: Machine learning sensors. *Communications of the ACM*, 66(11):25–28, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3586991.

Das:2023:PPA

[1149] Sauvik Das, Hao-Ping (Hank) Lee, and Jodi Forlizzi. Privacy: Privacy in the age of AI. *Communications of the ACM*, 66(11):29–31, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3625254`.

Mendonca:2023:OIA

[1150] Ricardo Fabrino Mendonça, Fernando Filgueiras, and Virgilio Almeida. Opinion: The infrapolitics of algorithmic resistance. *Communications of the ACM*, 66(11):32–34, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3573008`.

Forster:2023:ORC

[1151] Anna Förster. Opinion: Rethinking conference formats. *Communications of the ACM*, 66(11):35–37, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3583679`.

Videla:2023:EI

[1152] Alvaro Videla. Echoes of intelligence. *Communications of the ACM*, 66(11):38–43, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3610283`.

Noda:2023:DWA

[1153] Abi Noda, Margaret-Anne Storey, Nicole Forsgren, and Michaela Greiler. DevEX: What actually drives productivity? *Communications of the ACM*, 66(11):44–49, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3610285`.

Cazzola:2023:RSF

[1154] Walter Cazzola and Luca Favalli. Research: Scrambled features for breakfast: Concepts of agile language development. *Communications of the ACM*, 66(11):50–60, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3596217`.

DiNitto:2023:RIH

[1155] Elisabetta Di Nitto, Ismael García-Varea, Mehdi Jazayeri, Damian A. Tamburri, and Svetlana Tikhonenko. Research: Informatics higher education in Europe: a data portal and case study. *Communications of the ACM*, 66 (11):61–67, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3591107`.

Prakash:2023:RTS

[1156] Shvetank Prakash, Matthew Stewart, Colby Banbury, Mark Mazumder, Pete Warden, Brian Plancher, and Vijay Janapa Reddi. Research: Is TinyML sustainable? *Communications of the ACM*, 66(11):68–77, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3608473`.

Sattath:2023:RUC

[1157] Or Sattath. Research: Uncloneable cryptography. *Communications* of the ACM, 66(11):78–86, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3576897.

Fraser:2023:RHT

[1158] Gordon Fraser. Research highlights: Technical perspective: What's all the fuss about fuzzing? *Communications of the ACM*, 66(11):88, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3617381.

Bohme:2023:RHB

[1159] Marcel Böhme, Valentin J. M. Manès, and Sang Kil Cha. Research highlights: Boosting fuzzer efficiency: an information theoretic perspective. *Communications of the ACM*, 66(11):89–97, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3611019.

Koningstein:2023:LBH

[1160] Ross Koningstein. Last byte: How climate change was won. *Communications of the ACM*, 66(11):100–ff, November 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623643.

Cerf:2023:CET

[1161] Vinton G. Cerf. Cerf's up: On expert testimony. *Communications of the ACM*, 66(12):5, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631277.

Chayka:2023:BCC

[1162] Antony Chayka and Andrei Sukhov. BLOG@CACM: Comparing chatbots trained in different languages. *Communications of the ACM*, 66(12):6–7, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3626835.

Edwards:2023:NTT

[1163] Chris Edwards. News: Tales of topological qubits. *Communications of the ACM*, 66(12):8–10, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624436.

Shein:2023:NSD

[1164] Esther Shein. News: Saving digital libraries and the Internet Archive. *Communications of the ACM*, 66(12): 11–12, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625392.

Savage:2023:NRP

[1165] Neil Savage. News: Revamping Python for an AI world. *Communications of the ACM*, 66(12):13–14, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624987.

Dutta:2023:OTS

[1166] Subhabrata Dutta and Tanmoy Chakraborty. Opinion: Thus spake ChatGPT. *Communications of the ACM*, 66(12):16–19, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317

(electronic). URL https://dl.acm.org/doi/10.1145/3616863.

Malizia:2023:OWC

[1167] Alessio Malizia and Fabio Paternò. Opinion: Why is the current XAI not meeting the expectations? *Communications of the ACM*, 66(12):20–23, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3588313.

Denning:2023:PICb

[1168] Peter J. Denning and Todd W. Lyons. The profession of IT: a clash of civilizations. *Communications of the ACM*, 66 (12):24–26, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625832.

Neville-Neil:2023:KVHb

[1169] George V. Neville-Neil. Kode vicious: Halfway around the world. *Communications of the ACM*, 66(12):27–28, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625551.

Berndtsson:2023:OSS

[1170] Mikael Berndtsson, Anna-Carin Jonsson, Magnus Carlsson, and Thomas Svahn. Opinion: a strategy for scaling advanced analytics. *Communications of the ACM*, 66(12):29–31, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3582075.

Andriole:2023:OFW

[1171] Stephen Andriole. Opinion: Five ways executives misunderstand technology. *Communications of the ACM*, 66(12):32–34, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3595291.

Haigh:2023:HRT

[1172] Thomas Haigh. Historical reflections: There was no 'First AI Winter'. *Communications of the ACM*, 66 (12):35–39, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625833.

Miller:2023:PFM

[1173] Ethan L. Miller, George Neville-Neil, Achilles Benetopoulos, Pankaj Mehra, and Daniel Bittman. Pointers in far memory. *Communications of the ACM*, 66(12):40–45, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3617581.

Stark:2023:HFC

[1174] Samuel W. Stark, A. Theodore Markettos, and Simon W. Moore. How flexible is CXL's memory protection? *Communications of the ACM*, 66(12): 46–51, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3617580.

Elmqvist:2023:RDA

[1175] Niklas Elmqvist. Research: Data analytics anywhere and everywhere. *Communications of the ACM*, 66(12):

52–63, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3584858.

Medvedev:2023:RTA

[1176] Paul Medvedev. Research: Theoretical analysis of edit distance algorithms. *Communications of the ACM*, 66(12):64–71, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3582490.

Lee:2023:RWT

[1177] Jongho Lee, Mohit Gupta, Bhuvana Krishnaswamy, and Suman Banerjee. Research: When two cameras are a crowd. *Communications of the ACM*, 66(12):72–82, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3588998.

Teng:2023:RHT

[1178] Shang-Hua Teng. Research highlights: Technical perspective: Maximum flow through a network: a storied problem and a groundbreaking solution. *Communications of the ACM*, 66(12):84, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623277.

Chen:2023:RHA

[1179] Li Chen, Rasmus Kyng, Yang P. Liu, Richard Peng, Maximilian Probst Gutenberg, and Sushant Sachdeva. Research highlights: Almost-linear-time algorithms for maximum flow and minimum-cost flow. *Communications of the ACM*, 66(12):85–92, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3610940.

Hoffmann:2023:LBU

[1180] Leah Hoffmann. Last byte: Ulterior motives. *Communications of the ACM*, 66(12):96–ff, December 2023. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625241.

Vardi:2024:DCY

[1181] Moshe Y. Vardi. Departments: Computing, you have blood on your hands! *Communications of the ACM*, 67(1): 5, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3632963.

Zheng:2024:CPC

[1182] Sam Zheng. Career paths in computing: From eye tracking to AI-powered learning. *Communications of the ACM*, 67(1):7, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3632182.

Vakulov:2024:BPL

[1183] Alex Vakulov. BLOG@CACM: Protecting life-saving medical devices from cyberattack. *Communications of the ACM*, 67(1):8–9, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631535.

Monroe:2024:NEN

[1184] Don Monroe. News: Epigenomics now. *Communications of the ACM*, 67(1):11–13, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631934.

Goth:2024:NWL

[1185] Gregory Goth. News: Why are lawyers afraid of AI? *Communications of the ACM*, 67(1):14–16, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631935.

Greengard:2024:NWG

[1186] Samuel Greengard. News: Wayfinding without GPS. *Communications of the ACM*, 67(1):17–19, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3627104.

Hall:2024:APF

[1187] Wendy Hall, Divesh Srivastava, and Scott Delman. ACM publications finances: ACM publications finances for 2022: Striving for balance between mission, sustainability, and growth. *Communications of the ACM*, 67(1):22–26, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3635166.

Demartini:2024:ODB

[1188] Gianluca Demartini, Kevin Roitero, and Stefano Mizzaro. Opinion: Data bias management. *Communications of the ACM*, 67(1):28–32, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3611641.

Cusumano:2024:TSMa

[1189] Michael Cusumano. Technology strategy and management: NVIDIA at the center of the generative AI ecosystem — for now. *Communications of the ACM*, 67(1):33–35, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631537.

Langvardt:2024:LTB

[1190] Kyle Langvardt and Alan Z. Rozenshtein. Law and technology: Beyond the editorial analogy: The future of the First Amendment on the Internet. *Communications of the ACM*, 67(1):36–38, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631538.

Suhail:2024:SPL

[1191] Sabah Suhail, Mubashar Iqbal, and Raja Jurdak. Security: The perils of leveraging evil digital twins as security-enhancing enablers. *Communications of the ACM*, 67(1):39–42, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631539.

Stefanija:2024:OTS

[1192] Ana Pop Stefanija, Bart Buelens, Elfi Goesaert, Tom Lenaerts, Jo Pierson, and Jan Van den Bussche. Opinion: Toward a solid acceptance of the decentralized Web of Personal Data: Societal and technological convergence. *Communications of the ACM*, 67(1):43–46, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317

(electronic). URL https://dl.acm.org/doi/10.1145/3624555.

Yao:2024:ORH

[1193] Danfeng (Daphne) Yao. Opinion: Rebuttal how-to: Strategies, tactics, and the big picture in research. *Communications of the ACM*, 67(1):47–49, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624722.

Hoffmann:2024:QAM

[1194] Leah Hoffmann. Q&A: Achievement in microarchitecture. *Communications of the ACM*, 67(1):50–51, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3627709.

Russinovich:2024:CCE

[1195] Mark Russinovich. Confidential computing: Elevating cloud security and privacy. *Communications of the ACM*, 67(1):52–53, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624577.

Kaplan:2024:HVI

[1196] David Kaplan. Hardware VM isolation in the cloud. *Communications of the ACM*, 67(1):54–59, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624576.

Dhanuskodi:2024:CFC

[1197] Gobikrishna Dhanuskodi, Sudeshna Guha, Vidhya Krishnan, Aruna Manjunatha, Rob Nertney, Michael O'Connor, and Phil Rogers. Creating the first confidential GPUs. *Communications of the ACM*, 67(1):60–67, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3626827.

Delignat-Lavaud:2024:WST

[1198] Antoine Delignat-Lavaud, Cédric Fournet, Kapil Vaswani, Sylvan Clebsch, Maik Riechert, Manuel Costa, and Mark Russinovich. Why should I trust your code? *Communications of the ACM*, 67(1):68–76, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624578.

Brown:2024:RTS

[1199] Neil C. C. Brown, Felienne F. J. Hermans, and Lauren E. Margulieux. Research: 10 things software developers should learn about learning. *Communications of the ACM*, 67(1):78–87, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3584859.

Raghavan:2024:RWS

[1200] Manish Raghavan. Research: What should we do when our ideas of fairness conflict? *Communications of the ACM*, 67(1):88–97, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587930.

Abeywickrama:2024:RST

[1201] Dhaminda B. Abeywickrama, Amel Bennaceur, Greg Chance, Yiannis

Demiris, Anastasia Kordoni, Mark Levine, Luke Moffat, Luc Moreau, Mohammad Reza Mousavi, Bashar Nuseibeh, Subramanian Ramamoorthy, Jan Oliver Ringert, James Wilson, Shane Windsor, and Kerstin Eder. Research: On specifying for trustworthiness. *Communications of the ACM*, 67(1):98–109, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624699.

Du:2024:RSL

[1202] Mengnan Du, Fengxiang He, Na Zou, Dacheng Tao, and Xia Hu. Research: Shortcut learning of large language models in natural language understanding. *Communications of the ACM*, 67(1):110–120, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3596490.

Waller:2024:RHU

[1203] Annalu Waller. Research highlights: The user as a key ingredient in AAC design: Technical perspective. *Communications of the ACM*, 67(1):122, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3629475.

Valencia:2024:RHN

[1204] Stephanie Valencia, Mark Steidl, Michael L. Rivera, Cynthia L. Bennett, Jeffrey P. Bigham, and Henny Admoni. Research highlights: Nonverbal communication through expressive objects. *Communications of the ACM*, 67 (1):123–131, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3610939.

Shasha:2024:LBS

[1205] Dennis Shasha. Last byte: Seesaw gold. *Communications of the ACM*, 67(1):136–ff, January 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3630113.

Cerf:2024:CVF

[1206] Vinton G. Cerf. Cerf's up: Validating factual personal information. *Communications of the ACM*, 67(2):5, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638528.

Tray:2024:BWB

[1207] Alex Tray. BLOG@CACM: Why bother localizing information technology products? *Communications of the ACM*, 67(2):6–7, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638537.

Klarreich:2024:NAA

[1208] Erica Klarreich. News: Algorithmic advance: The group isomorphism problem. *Communications of the ACM*, 67(2):9–11, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637207.

Edwards:2024:NTT

[1209] Chris Edwards. News: Teaching transformed. *Communications of the ACM*, 67(2):12–13, February 2024. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637208.

Mone:2024:NVR

[1210] Gregory Mone. News: Virtual reality as therapy. *Communications of the ACM*, 67(2):14–15, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638536.

Hoadley:2024:OAP

[1211] Christopher Hoadley and Sara Vogel. Opinion: Autocorrect is not: People are multilingual and computer science should be too. *Communications of the ACM*, 67(2):16–18, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633585.

Diakopoulos:2024:CEL

[1212] N. Diakopoulos, C. Trattner, D. Jannach, I. Costera Meijer, and E. Motta. Computing ethics: Leveraging professional ethics for responsible AI. *Communications of the ACM*, 67(2):19–21, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3625252.

Haigh:2024:HRH

[1213] Thomas Haigh. Historical reflections: How the AI boom went bust. *Communications of the ACM*, 67(2):22–26, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3634901.

Neville-Neil:2024:KVD

[1214] George V. Neville-Neil. Kode vicious: Dear diary. *Communications of the ACM*, 67(2):27–28, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633288.

Simha:2024:OUC

[1215] Rahul Simha, Amruth N. Kumar, and Rajendra K. Raj. Opinion: Undergraduate computer science curricula. *Communications of the ACM*, 67(2):29–31, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624729.

Fraser:2024:OVF

[1216] Steven Fraser and Dennis Mancl. Opinion: Virtual and the future of conferences. *Communications of the ACM*, 67(2):32–34, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624638.

Spector:2024:OGB

[1217] Alfred Z. Spector. Opinion: Gaining benefit from artificial intelligence and data science: a three-part framework. *Communications of the ACM*, 67(2):35–38, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624726.

Vachon:2024:SM

[1218] Phil Vachon. Security mismatch. *Communications of the ACM*, 67(2):40–41, February 2024. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3630746.

Limoncelli:2024:KWY

[1219] Thomas A. Limoncelli. Knowing what you need to know. *Communications of the ACM*, 67(2):42–46, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3630745.

Buyl:2024:RIL

[1220] Maarten Buyl and Tijl De Bie. Research: Inherent limitations of AI fairness. *Communications of the ACM*, 67(2):48–55, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624700.

Denny:2024:RCE

[1221] Paul Denny, James Prather, Brett A. Becker, James Finnie-Ansley, Arto Hellas, Juho Leinonen, Andrew Luxton-Reilly, Brent N. Reeves, Eddie Antonio Santos, and Sami Sarsa. Research: Computing education in the era of generative AI. *Communications of the ACM*, 67(2):56–67, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624720.

Shanahan:2024:RTA

[1222] Murray Shanahan. Research: Talking about large language models. *Communications of the ACM*, 67(2):68–79, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624724.

Kim:2024:RAH

[1223] Rae Yule Kim. Research: Anthropomorphism and human-robot interaction. *Communications of the ACM*, 67(2):80–85, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624716.

Patterson:2024:REE

[1224] David Patterson, Jeffrey M. Gilbert, Marco Gruteser, Efren Robles, Krishna Sekar, Yong Wei, and Tenghui Zhu. Research: Energy and emissions of machine learning on smartphones vs. the cloud. *Communications of the ACM*, 67(2):86–97, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624719. See corrections [1231].

Saxena:2024:RHH

[1225] Nitin Saxena. Research highlights: How easy is it to describe hard polynomials?: Technical perspective. *Communications of the ACM*, 67(2):100, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631338.

Limaye:2024:RHS

[1226] Nutan Limaye, Srikanth Srinivasan, and Sébastien Tavenas. Research highlights: Superpolynomial lower bounds against low-depth algebraic circuits. *Communications of the ACM*, 67(2):101–108, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3611094.

Buttazzo:2024:RHB

[1227] Giorgio Buttazzo. Research highlights: Bridging AI with real-time systems: Technical perspective. *Communications of the ACM*, 67(2):109, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631339.

Liu:2024:RHT

[1228] Shengzhong Liu, Shuochao Yao, Xinzhe Fu, Rohan Tabish, Simon Yu, Ayoosh Bansal, Heechul Yun, Lui Sha, and Tarek Abdelzaher. Research highlights: Taming algorithmic priority inversion in mission-critical perception pipelines. *Communications of the ACM*, 67(2):110–117, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3610801.

Clegg:2024:LBH

[1229] Brian Clegg. Last byte: The human touch. *Communications of the ACM*, 67(2):120–ff, February 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3587273.

Vardi:2024:DWD

[1230] Moshe Y. Vardi. Departments: What do computing and economics have to say to each other? *Communications of the ACM*, 67(3):5, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3639465.

Patterson:2024:ELC

[1231] David Patterson, Jeffrey M. Gilbert, Marco Gruteser, Efren Robles, Krishna Sekar, Yong Wei, and Tenghui Zhu. Editor's letter: Corrigendum for February 2024 article. *Communications of the ACM*, 67(3):6, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3643802. See [1224].

Morton:2024:CPC

[1232] Thomas Morton. Career paths in computing: Computations for this world and out of this world. *Communications of the ACM*, 67(3):7, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638140.

Hill:2024:BPU

[1233] Robin K. Hill and Carlos Baquero. BLOG@CACM: Pondering the ugly underbelly, and whether images are real. *Communications of the ACM*, 67(3):8–10, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3639711.

Greengard:2024:NSR

[1234] Samuel Greengard. News: Service robots roll forward. *Communications of the ACM*, 67(3):11–13, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637863.

Kugler:2024:NBM

[1235] Logan Kugler. News: The battle to mitigate e-waste. *Communications of the ACM*, 67(3):14–16, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638041.

Shein:2024:NWS

[1236] Esther Shein. News: What's that smell? *Communications of the ACM*, 67(3):17–19, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638042.

Garfinkel:2024:NMN

[1237] Simson Garfinkel and Eugene H. Spafford. News: In memoriam: Niklaus Wirth. *Communications of the ACM*, 67(3):20, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3641309.

Blancato:2024:OIO

[1238] Filippo Gualtiero Blancato. Opinion: Innovation is overrated: a provocation. *Communications of the ACM*, 67(3):22–24, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624727.

Samuelson:2024:LSU

[1239] Pamela Samuelson. Legally speaking: U.S. Copyright Office's questions about generative AI. *Communications of the ACM*, 67(3):25–28, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637627.

Cranor:2024:PIT

[1240] Lorrie Faith Cranor, Yuvraj Agarwal, and Pardis Emami-Naeini. Privacy: Internet of Things security and privacy labels should empower consumers. *Communications of the ACM*, 67(3):29–31, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637630.

Denning:2024:PIC

[1241] Peter Denning and B. Scot Rousse. The profession of IT: Can machines be in language? *Communications of the ACM*, 67(3):32–35, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637629.

Mazurczyk:2024:ODA

[1242] Wojciech Mazurczyk, Dongwon Lee, and Andreas Vlachos. Opinion: Disinformation 2.0 in the age of AI: a cybersecurity perspective. *Communications of the ACM*, 67(3):36–39, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624721.

Burtch:2024:OGA

[1243] Gordon Burtch, Dokyun Lee, and Zhichen Chen. Opinion: Generative AI degrades online communities. *Communications of the ACM*, 67(3):40–42, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3624732.

Deokuliar:2024:ITD

[1244] Harsh Deokuliar, Raghvinder S. Sangwan, Yoaukim Badr, and Satish M. Srinivasan. Improving testing of deep-learning systems. *Communications of the ACM*, 67(3):44–48, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633311.

Matsudaira:2024:SMG

[1245] Kate Matsudaira. Software managers' guide to operational excellence. *Communications of the ACM*, 67(3):49–51, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633289.

Ziegler:2024:RMG

[1246] Albert Ziegler, Eirini Kalliamvakou, X. Alice Li, Andrew Rice, Devon Rifkin, Shawn Simister, Ganesh Sittampalam, and Edward Aftandilian. Research: Measuring GitHub Copilot's impact on productivity. *Communications of the ACM*, 67(3):54–63, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633453.

Ahmed:2024:RIB

[1247] Saad Ahmed, Bashima Islam, Kasim Sinan Yildirim, Marco Zimmerling, Przemysław Pawełczak, Muhammad Hamad Alizai, Brandon Lucia, Luca Mottola, Jacob Sorber, and Josiah Hester. Research: The Internet of Batteryless Things. *Communications of the ACM*, 67(3):64–73, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624718.

Kimelfeld:2024:RUF

[1248] Benny Kimelfeld and Phokion G. Kolaitis. Research: a unifying framework for incompleteness, inconsistency, and uncertainty in databases. *Communications of the ACM*, 67(3):74–83, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624717.

Chapman:2024:RCD

[1249] Roderick Chapman, Claire Dross, Stuart Matthews, and Yannick Moy. Research: Co-developing programs and their proof of correctness. *Communications of the ACM*, 67(3):84–94, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624728.

Wichs:2024:RHT

[1250] Daniel Wichs. Research highlights: Technical perspective: Hiding secrets in programs. *Communications of the ACM*, 67(3):96, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3632568.

Jain:2024:RHI

[1251] Aayush Jain, Huijia Lin, and Amit Sahai. Research highlights: Indistinguishability obfuscation from well-founded assumptions. *Communications of the ACM*, 67(3):97–105, March

2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3611095.

Hoffmann:2024:LBV

[1252] Leah Hoffmann. Last byte: Verifying correctness. *Communications of the ACM*, 67(3):108, 107, March 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3639575.

Cerf:2024:CTA

[1253] Vinton G. Cerf. Cerf's up: Thoughts on AI interoperability. *Communications of the ACM*, 67(4):5, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3649475.

Hazzan:2024:BUD

[1254] Orit Hazzan and Avital Binah-Pollak. BLOG@CACM: Using data science to predict how rituals will evolve. *Communications of the ACM*, 67(4):6–8, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640539.

Edwards:2024:NAB

[1255] Chris Edwards. News: Answers begin to surface to Deep Earth puzzles. *Communications of the ACM*, 67(4):9–11, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640478.

Shein:2024:NGS

[1256] Esther Shein. News: Governments setting limits on AI. *Communications of the ACM*, 67(4):12–14, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640506.

Kirkpatrick:2024:NAA

[1257] Keith Kirkpatrick. News: Abusing AI for advertising. *Communications of the ACM*, 67(4):15–17, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640507.

Sako:2024:TSM

[1258] Mari Sako. Technology strategy and management: How generative AI fits into knowledge work. *Communications of the ACM*, 67(4):20–22, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3638567.

Johnson:2024:OGA

[1259] Maggie Johnson. Opinion: Generative AI and CS education. *Communications of the ACM*, 67(4):23–24, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3632523.

Farrell:2024:OBS

[1260] Henry Farrell and Cosma Shalizi. Opinion: Bias, skew, and search engines are sufficient to explain online toxicity. *Communications of the ACM*, 67(4):25–28, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624715.

Neville-Neil:2024:KVT

[1261] George V. Neville-Neil. Kode Vicious: Is there another system? *Communications of the ACM*, 67(4):29–30, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3640316`.

Faggioli:2024:OWD

[1262] Guglielmo Faggioli, Laura Dietz, Charles L. A. Clarke, Gianluca Demartini, Matthias Hagen, Claudia Hauff, Noriko Kando, Evangelos Kanoulas, Martin Potthast, Benno Stein, and Henning Wachsmuth. Opinion: Who determines what is relevant? Humans or AI? Why not both? *Communications of the ACM*, 67(4):31–34, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3624730`.

Kapoor:2024:OID

[1263] Hemangee K. Kapoor and David A. Patterson. Opinion: Increasing diversity, equity, and inclusion awareness: an example from India. *Communications of the ACM*, 67(4):35–36, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3630747`.

Cooper:2024:DOU

[1264] Geoffrey H. Cooper. Device onboarding using FDO and the untrusted installer model. *Communications of the ACM*, 67(4):38–45, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3637830`.

Vachon:2024:SJ

[1265] Phil Vachon. The security jawbreaker. *Communications of the ACM*, 67(4):46–48, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3637829`.

Tang:2024:RSD

[1266] Ruixiang Tang, Yu-Neng Chuang, and Xia Hu. Research: The science of detecting LLM-generated text. *Communications of the ACM*, 67(4):50–59, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3624725`.

Lee:2024:RSC

[1267] Minhyung Lee, Jinyoung Min, Junyeong Lee, Chanhee Kwak, and Hanbyeol Stella Choi. Research: a small clue made of fragmented pieces. *Communications of the ACM*, 67(4):60–69, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3624714`.

Himmel:2024:RFP

[1268] Anne-Sophie Himmel, George B. Mertzios, André Nichterlein, and Rolf Niedermeier. Research: Fast parameterized preprocessing for polynomial-time solvable graph problems. *Communications of the ACM*, 67(4):70–79, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3624713`.

Steinhofel:2024:RLB

[1269] Dominic Steinhöfel and Andreas Zeller. Research: Language-based software testing. *Communications of the ACM*, 67(4):80–84, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3631520`.

Lea:2024:RHT

[1270] Doug Lea. Research highlights: Technical perspective: Learning-based memory allocation for C++ server workloads. *Communications of the ACM*, 67 (4):86, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3636500`.

Maas:2024:RHC

[1271] Martin Maas, David G. Andersen, Michael Isard, Mohammad Mahdi Javanmard, Kathryn S. McKinley, and Colin Raffel. Research highlights: Combining machine learning and lifetime-based resource management for memory allocation and beyond. *Communications of the ACM*, 67(4):87–96, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3611018`.

Shasha:2024:LBJ

[1272] Dennis Shasha. Last byte: Jump snatch. *Communications of the ACM*, 67(4):100–ff, April 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3638565`.

Vardi:2024:DMD

[1273] Moshe Y. Vardi. Departments: More is different, in social media too. *Communications of the ACM*, 67(5):5, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653683`.

Kapoor:2024:AEA

[1274] Hemangee Kapoor, Cherri Pancake, and Gerald Segal. ACM election: ACM's 2024 general election. *Communications of the ACM*, 67(5):7–21, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3652030`.

Bruderer:2024:BDD

[1275] Herbert Bruderer and Alex Vakulov. BLOG@CACM: The dangers of digitization, and the importance of data backup. *Communications of the ACM*, 67(5):23–25, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3643990`.

Monroe:2024:NME

[1276] Don Monroe. News: More efficient fault-tolerant quantum computing. *Communications of the ACM*, 67(5):26–28, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3640350`.

Savage:2024:NCC

[1277] Neil Savage. News: Can ChatGPT learn Chinese or Swahili? *Communications of the ACM*, 67(5):29–31, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640351.

Mone:2024:NTF

[1278] Gregory Mone. News: Thirsty fabs. *Communications of the ACM*, 67(5): 32–33, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640352.

Grimmelmann:2024:LTR

[1279] James Grimmelmann. Law and technology: The return of age verification laws. *Communications of the ACM*, 67(5):34–36, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3651865.

Pochat:2024:SRR

[1280] Victor Le Pochat. Security: Reflecting on research practices. *Communications of the ACM*, 67(5):37–39, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3651965.

Clegg:2024:ECC

[1281] Tamara L. Clegg. Education: Community is critical too. *Communications of the ACM*, 67(5):40–42, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3651982.

Dunbar:2024:OVL

[1282] William Dunbar. Opinion: Vendor-locked DevOps strategies. *Communications of the ACM*, 67(5):43–44, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633776.

Berente:2024:OTD

[1283] Nicholas Berente, Cameron Kormylo, and Christoph Rosenkranz. Opinion: Test-driven ethics for machine learning. *Communications of the ACM*, 67(5):45–47, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3633455.

Strelzoff:2024:OHI

[1284] Andrew Strelzoff, Benjamin D. Trump, Christopher L. Cummings, Madison Smith, Stephanie E. Galaitsi, Kelsey Stoddard, Jeff Keisler, Moshe Vardi, Nathaniel Bastian, Alexander Kott, and Igor Linkov. Opinion: Human intuition and algorithmic efficiency must be balanced to enhance data mesh resilience. *Communications of the ACM*, 67(5):48–51, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3632290.

Kaushik:2024:RHS

[1285] Divyansh Kaushik, Zachary C. Lipton, and Alex John London. Resolving the human-subjects status of ML's crowdworkers. *Communications of the ACM*, 67(5):52–59, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3641858.

Chisnall:2024:HDI

[1286] David Chisnall. How to design an ISA. *Communications of the ACM*, 67(5):60–66, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3640538`.

Stork:2024:RCV

[1287] David G. Stork. Research: Computer vision, ML, and AI in the study of fine art. *Communications of the ACM*, 67(5):68–75, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3633454`.

Schocken:2024:RNT

[1288] Shimon Schocken. Research: Nand to Tetris: Building a modern computer system from first principles. *Communications of the ACM*, 67(5):76–85, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3626513`.

Ryu:2024:RJL

[1289] Sukyoung Ryu and Jihyeok Park. Research: JavaScript language design and implementation in tandem. *Communications of the ACM*, 67(5):86–95, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3624723`.

Freund:2024:RHI

[1290] Daniel Freund. Research highlights: Improving refugees' integration with online resource allocation: Technical perspective. *Communications of the ACM*, 67(5):9898, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3639539`.

Ahani:2024:RHD

[1291] Narges Ahani, Paul Gölz, Ariel D. Procaccia, Alexander Teytelboym, and Andrew C. Trapp. Research highlights: Dynamic placement in refugee resettlement. *Communications of the ACM*, 67(5):99–106, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3611073`.

Pitre:2024:LBF

[1292] Boisy Pitre. Last byte: a fit of anger. *Communications of the ACM*, 67(5):108–ff, May 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3649306`.

Cerf:2024:CDB

[1293] Vinton G. Cerf. Cerf's up: On the difference between security and safety. *Communications of the ACM*, 67(6):5, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3656590`.

Shamma:2024:CPC

[1294] David Ayman Shamma. Career paths in computing: Taking apart to build back up. *Communications of the ACM*, 67(6):7, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3663378`.

Staff:2024:LEG

[1295] CACM Staff. Letters to the Editor: Generating trust. *Communications of the ACM*, 67(6):8–9, June 2024. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3654698`.

Liu:2024:BSO

[1296] Shaoshan Liu. BLOG@CACM: Shaping the outlook for the autonomy economy. *Communications of the ACM*, 67(6):10–12, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653468`.

Savage:2024:NLC

[1297] Neil Savage. News: a life of complexity. *Communications of the ACM*, 67(6):14–16, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3656578`.

Kugler:2024:NRD

[1298] Logan Kugler. News: Raising the dead with AI. *Communications of the ACM*, 67(6):17–19, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3644080`.

Monroe:2024:NQL

[1299] Don Monroe. News: a quantum leap in factoring. *Communications of the ACM*, 67(6):20–21, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3644101`.

Mone:2024:NPD

[1300] Gregory Mone. News: Poisoning data to protect it. *Communications of the ACM*, 67(6):22–23, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3644938`.

Denning:2024:PIR

[1301] Peter Denning and Todd Lyons. The profession of IT: Resistance is your friend. *Communications of the ACM*, 67(6):26–29, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3654696`.

Steen:2024:OPT

[1302] Marc Steen. Opinion: The problem with the trolley problem and the need for systems thinking. *Communications of the ACM*, 67(6):30–32, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3635302`.

Neville-Neil:2024:KVSa

[1303] George V. Neville-Neil. Kode vicious: Software drift. *Communications of the ACM*, 67(6):33–34, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3654697`.

Chancellor:2024:ODK

[1304] Stevie Chancellor, Joseph A. Konstan, Loren Terveen, and Svetlana Yarosh. Opinion: Do know harm: Considering the ethics of online community research. *Communications of the ACM*, 67(6):35–38, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3635303`.

Horvitz:2024:ONL

[1305] Eric Horvitz, Vincent Conitzer, Sheila McIlraith, and Peter Stone. Opinion: Now, later, and lasting: 10 priorities for AI research, policy, and practice. *Communications of the ACM*, 67(6):39–40, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637866.

Forsgren:2024:DA

[1306] Nicole Forsgren, Eirini Kalliamvakou, Abi Noda, Michaela Greiler, Brian Houck, and Margaret-Anne Storey. DevEx in action. *Communications of the ACM*, 67(6):42–51, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3643140.

Kern:2024:DES

[1307] Christoph Kern. Developer ecosystems for software safety. *Communications of the ACM*, 67(6):52–60, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3651621.

Harel:2024:RAH

[1308] David Harel and Assaf Marron. Research and advances: The human-or-machine issue: Turing-inspired reflections on an everyday matter. *Communications of the ACM*, 67(6):62–69, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637210.

Goni-Moreno:2024:RAB

[1309] Ángel Goñi-Moreno. Research and advances: Biocomputation: Moving beyond Turing with living cellular computers. *Communications of the ACM*, 67(6):70–77, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3635470.

Rojas:2024:RAF

[1310] Raúl Rojas. Research and advances: The first computer program. *Communications of the ACM*, 67(6):78–81, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3624731.

Yu:2024:RAR

[1311] Liang Yu, Emil Alégroth, Panagiota Chatzipetrou, and Tony Gorschek. Research and advances: a roadmap for using continuous integration environments. *Communications of the ACM*, 67(6):82–90, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631519.

Gollakota:2024:RHC

[1312] Shyamnath Gollakota. Research highlights: Creating the Internet of Biological and Bio-Inspired Things: Technical perspective. *Communications of the ACM*, 67(6):92, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3640472.

Lee:2024:RHM

[1313] Inhee Lee, Roger Hsiao, Gordy Carichner, Chin-Wei Hsu, Mingyu Yang, Sara

Shoouri, Katherine Ernst, Tess Carichner, Yuyang Li, Jaechan Lim, Cole R. Julick, Eunseong Moon, Yi Sun, Jamie Phillips, Kristi L. Montooth, Delbert A. Green, Hun-Seok Kim, and David Blaauw. Research highlights: mSAIL: Milligram-scale multi-modal sensor platform for monarch butterfly migration tracking. *Communications of the ACM*, 67(6):93–101, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3611105`.

Hoffmann:2024:LBS

[1314] Leah Hoffmann. Last byte: Specifying the power and limitations of randomness. *Communications of the ACM*, 67(6):104–ff, June 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3656155`.

Vardi:2024:DCD

[1315] Moshe Y. Vardi. Departments: Is computing a discipline in crisis? *Communications of the ACM*, 67(7):5, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3665660`.

Williams:2024:BZK

[1316] Alex Williams. BLOG@CACM: Zero-knowledge proofs and their role within the blockchain. *Communications of the ACM*, 67(7):6–7, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653478`.

Edwards:2024:NDQ

[1317] Chris Edwards. News: Data quality may be all you need. *Communications of the ACM*, 67(7):8–10, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3647631`.

Kugler:2024:NDP

[1318] Logan Kugler. News: Digital payment issues. *Communications of the ACM*, 67(7):11–13, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3647637`.

Greengard:2024:NLL

[1319] Samuel Greengard. News: Lithography lights a new path. *Communications of the ACM*, 67(7):14–16, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3647645`.

Garfinkel:2024:NMG

[1320] Simson Garfinkel and Eugene H. Spafford. News: In memoriam: Gordon Bell. *Communications of the ACM*, 67(7):17, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3669937`.

Sellen:2024:ORA

[1321] Abigail Sellen and Eric Horvitz. Opinion: The rise of the AI Co-Pilot: Lessons for design from aviation and beyond. *Communications of the ACM*, 67(7):18–23, July 2024. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637865.

Brodley:2024:OBR

[1322] Carle E. Brodley and Catherine Gill. Opinion: The BPC relevance of common assessment in the introductory sequence. *Communications of the ACM*, 67(7):24–26, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637891.

Samuelson:2024:LSH

[1323] Pamela Samuelson. Legally speaking: How to think about remedies in the generative AI copyright cases. *Communications of the ACM*, 67(7):27–30, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3654699.

Scheffler:2024:PAV

[1324] Sarah Scheffler. Privacy: Age verification systems will be a personal identifiable information nightmare. *Communications of the ACM*, 67(7):31–33, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3660519.

Vitharana:2024:ASM

[1325] Padmal Vitharana and Shahir A. Daya. Adopting and sustaining microservice-based software development. *Communications of the ACM*, 67(7):34–41, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3651620.

Wang:2024:OAG

[1326] Yifei Wang. From open access to guarded trust. *Communications of the ACM*, 67(7):42–45, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3662188.

Barr:2024:RAV

[1327] Valerie Barr, Carla E. Brodley, and Manuel Pérez-Quiñones. Research and advances: Visualizing progress in broadening participation in computing: The value of context. *Communications of the ACM*, 67(7):46–55, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3635471.

Kim:2024:RAS

[1328] Jiwon Kim, Hamed Okhravi, Dave (Jing) Tian, and Benjamin E. Ujcich. Research and advances: Security challenges of intent-based networking. *Communications of the ACM*, 67(7):56–65, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3639702.

Marques-Silva:2024:RAE

[1329] Joao Marques-Silva and Xuanxiang Huang. Research and advances: Explainability is not a game. *Communications of the ACM*, 67(7):66–75, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3635301.

Spielman:2024:RHS

[1330] Daniel Spielman. Research highlights: Solve for x: Technical perspective. *Communications of the ACM*, 67(7):78, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3643835`.

Peng:2024:RHS

[1331] Richard Peng and Santosh S. Vempala. Research highlights: Solving sparse linear systems faster than matrix multiplication. *Communications of the ACM*, 67(7):79–86, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3615679`.

Shasha:2024:LBC

[1332] Dennis Shasha. Last byte: Click fulfillment. *Communications of the ACM*, 67(7):88–ff, July 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3654700`.

Cerf:2024:CBH

[1333] Vinton G. Cerf. Cerf's up: The boundary hunters. *Communications of the ACM*, 67(8):5, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3676485`.

Bhattacharya:2024:BUG

[1334] Ranjeeta Bhattacharya and Mario Antoine Aoun. BLOG@CACM: Using generative AI in finance, and the lack of emergent behavior in LLMs. *Communications of the ACM*, 67(8):6–7, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3674118`.

Edwards:2024:NSE

[1335] Chris Edwards. News: Spinning electrons to attain low-power computing. *Communications of the ACM*, 67(8):8–10, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3673424`.

Goth:2024:NCA

[1336] Gregory Goth. News: Can artificial intelligence be open sourced? *Communications of the ACM*, 67(8):11–13, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3673425`.

Kugler:2024:NHT

[1337] Logan Kugler. News: How Today's recommender systems use machine learning to cater to your every whim. *Communications of the ACM*, 67(8):14–16, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3673426`.

Novoa-Monsalve:2024:OSN

[1338] Elizabeth Novoa-Monsalve, David Patterson, Stephanie Ludi, and Daniel E. Acuna. Opinion: Science needs you: Mobilizing for diversity in award recognition. *Communications of the ACM*, 67(8):18–21, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3651150`.

Loui:2024:OAI

[1339] Michael C. Loui, Nigel Bosch, Anita Say Chan, Jenny L. Davis, Rochelle Gutiérrez, Jingrui He, Karrie Karahalios, Sanmi Koyejo, Ruby Mendenhall, Madelyn Rose Sanfilippo, Hanghang Tong, Lav R. Varshney, and Yang Wang. Opinion: Artificial intelligence, social responsibility, and the roles of the University. *Communications of the ACM*, 67(8):22–25, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3640541`.

Sunshine:2024:ERE

[1340] Joshua Sunshine and Joey Velez-Ginorio. Education: Research experiences for undergraduates are necessary for an equitable research community. *Communications of the ACM*, 67(8):26–28, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3665517`.

Felten:2024:OGA

[1341] Ed Felten, Manav Raj, and Rob Seamans. Opinion: Generative AI requires broad labor policy considerations. *Communications of the ACM*, 67(8):29–32, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3637864`.

Neville-Neil:2024:KVSb

[1342] George V. Neville-Neil. Kode vicious: Structuring success. *Communications of the ACM*, 67(8):33–34, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3665518`.

Kon:2024:LAR

[1343] Fabio Kon, Barbara Poblete, and Sebastian Uchitel. Latin America regional special section: Welcome. *Communications of the ACM*, 67(8):36–37, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3665275`.

Arroyuelo:2024:LAR

[1344] Diego Arroyuelo, Aidan Hogan, Gonzalo Navarro, Juan Reutter, and Domagoj Vrgoč. Latin America regional special section: Research agenda: Tackling challenges in implementing large-scale graph databases. *Communications of the ACM*, 67(8):40–44, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653314`.

Castaneda:2024:LAR

[1345] Armando Castañeda and Sergio Rajsbaum. Latin America regional special section: Research agenda: Recent advances on principles of concurrent data structures. *Communications of the ACM*, 67(8):45–46, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653290`.

Portugal:2024:LAR

[1346] Roxana Lisette Quintanilla Portugal, Leandro Antonelli, Sabrina Marczak, Graciela Dora Susana Hadad, Jaelson

Castro, and Julio Cesar Leite. Latin America regional special section: Research agenda: Requirements engineering in Latin America: The case of the WER. *Communications of the ACM*, 67(8):47–48, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653324`.

Toro:2024:LAR

[1347] Matías Toro, Federico Olmedo, and Éric Tanter. Latin America regional special section: Research agenda: Gradual differentially private programming. *Communications of the ACM*, 67(8):49–53, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653328`.

Maina:2024:LAR

[1348] Hernán Maina, Laura Alonso Alemany, Guido Ivetta, Mariela Rajngewerc, Beatriz Busaniche, and Luciana Benotti. Latin America regional special section: Research agenda: Exploring stereotypes and biases in language technologies in Latin America. *Communications of the ACM*, 67(8):54–56, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653322`.

Sipiran:2024:LAR

[1349] Ivan Sipiran. Latin America regional special section: Novel applications: The role of computing in the study of Latin American cultural heritage. *Communications of the ACM*, 67(8):58–62, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653309`.

Vidal:2024:LAR

[1350] Jazmín Vidal, Cyntia Bonomi, Pablo Riera, and Luciana Ferrer. Latin America regional special section: Novel applications: Automatic pronunciation assessment systems for English students from Argentina. *Communications of the ACM*, 67(8):63–67, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653326`.

Sibilla:2024:LAR

[1351] Gustavo Sibilla, Fernando Schapachnik, and Maria Soledad Escobar. Latin America regional special section: Novel applications: GENis: Open source forensic genetics software for judicial cooperation. *Communications of the ACM*, 67(8):68–69, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653291`.

Favela:2024:LAR

[1352] Jesus Favela, Dagoberto Cruz-Sandoval, Marcelo Marques da Rocha, and Débora Christina Muchaluat-Saade. Latin America regional special section: Novel applications: Social robots for healthcare and education in Latin America. *Communications of the ACM*, 67(8):70–71, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653320`.

Benevenuto:2024:LAR

[1353] Fabrício Benevenuto and Philipe Melo. Latin America regional special section: Social media: Misinformation campaigns through WhatsApp and telegram in Presidential elections in Brazil. *Communications of the ACM*, 67(8):72–77, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3653325.

Angles:2024:LAR

[1354] Renzo Angles, Naim Bro, Ivania Donoso-Guzmán, Juan Pablo Luna, Aidan Hogan, Juan Reutter, Henry Rosales-Méndez, and Sergio Toro. Latin America regional special section: Social media: Telar and TelarKG: Data-driven insights into Chile's constitutional process. *Communications of the ACM*, 67(8):78–79, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3653312.

Zorzo:2024:LAR

[1355] Avelino F. Zorzo, Claudia L. R. Da Motta, Leila Ribeiro, and Lisandro Z. Granville. Latin America regional special section: Education: Computing everywhere, for everyone, at any level. *Communications of the ACM*, 67(8):80–82, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3653308.

Borchardt:2024:LAR

[1356] Mara Borchardt, Inés Roggi, and Fernando Schapachnik. Latin America regional special section: Education: Keys to a comprehensive computer science at school policy in Argentina. *Communications of the ACM*, 67(8):83–85, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3654789.

Areces:2024:LAR

[1357] Carlos Areces, Luciana Benotti, Franco Bulgarelli, Emilia Echeveste, and Nadia Finzi. Latin America regional special section: Education: Leveraging language models and automatic summarization in online programming learning environments. *Communications of the ACM*, 67(8):86–87, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3653323.

Mariani:2024:LAR

[1358] Antônio Carlos Mariani, Lucas Machado da Palma, and Jean Everson Martina. Latin America regional special section: Education: The digital degree certification revolution in Brazil and beyond. *Communications of the ACM*, 67(8):88–89, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3653293.

Maciel:2024:LAR

[1359] Cristiano Maciel, Indira R. Guzman, Rita Cristina Galarraga Berardi, Nadia Rodriguez-Rodriguez, Luciana Salgado, Luciana Bolan Frigo, Boris Branisa, and Elizabeth Jiménez. Latin America regional special section: Education: An open data platform to advance gender equality in

STEM in Latin America. *Communications of the ACM*, 67(8):90–92, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653294`.

Brenes:2024:LAR

[1360] Jose A. Brenes and Gabriela Marín-Raventós. Latin America regional special section: Environment: Scalable technological architecture empowers small-scale smart farming solutions. *Communications of the ACM*, 67(8):93–94, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653327`.

Fazenda:2024:LAR

[1361] Álvaro L. Fazenda and Fabio A. Faria. Latin America regional special section: Environment: ForestEyes: Citizen scientists and machine learning-assisting rainforest conservation. *Communications of the ACM*, 67(8):95–96, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3653319`.

Luo:2024:PME

[1362] Queenie Luo, Michael J. Puett, and Michael D. Smith. A perspectival mirror of the elephant. *Communications of the ACM*, 67(8):98–105, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3670241`.

Kamp:2024:FOS

[1363] Poul-Henning Kamp. Free and open source software and other market failures. *Communications of the ACM*, 67(8):106–108, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3670242`.

Chow:2024:RHS

[1364] Paul Chow. Research highlights: The software-centric approach of SYNERGY: Technical perspective. *Communications of the ACM*, 67(8):133, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3655633`.

Landgraf:2024:RHC

[1365] Joshua Landgraf, Tiffany Yang, Will Lin, Christopher J. Rossbach, and Eric Schkufza. Research highlights: Compiler-driven FPGA virtualization with SYNERGY. *Communications of the ACM*, 67(8):134–142, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3613903`.

Rucher:2024:LBT

[1366] Soneyaa Rucher. Last byte: Triple helix. *Communications of the ACM*, 67(8):144–ff, August 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3672072`.

Vardi:2024:VIL

[1367] Moshe Y. Vardi. Vardi's insights: The linear fallacy. *Communications of the ACM*, 67(9):5, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3678725`.

Kukoyi:2024:CPT

[1368] Kay Kukoyi. Career paths: a technology Swiss Army knife. *Communications of the ACM*, 67(9):7, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3678502.

Williams:2024:BIM

[1369] Alex Williams. BLOG@CACM: Improving memory management, performance with Rust: Why Rust is becoming the programming language of choice for many high-level developers. *Communications of the ACM*, 67(9):8–9, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673648.

Lemire:2024:BWA

[1370] Daniel Lemire. BLOG@CACM: Will AI flood us with irrelevant papers? *Communications of the ACM*, 67(9):9, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673649.

Savage:2024:NBT

[1371] Neil Savage. News: Beyond Turing: Testing LLMs for intelligence. *Communications of the ACM*, 67(9): 10–12, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673427.

Shein:2024:NIA

[1372] Esther Shein. News: The impact of AI on computer science education. *Communications of the ACM*, 67 (9):13–15, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673428.

Greengard:2024:NAR

[1373] Samuel Greengard. News: AI reinvents chip design. *Communications of the ACM*, 67(9):16–18, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673645.

Bullynck:2024:OMC

[1374] Maarten Bullynck and Liesbeth De Mol. Opinion: The myth of the coder. *Communications of the ACM*, 67(9):20–23, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3639562.

Denning:2024:PIS

[1375] Peter J. Denning. The profession of IT: Subscriptions. *Communications of the ACM*, 67(9):24–26, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3678017.

Tazi:2024:OIP

[1376] Faiza Tazi, Josiah Dykstra, Prashanth Rajivan, Kapil Chalil Madathil, Jiovanne Hughart, James McElligott, Daniel Votipka, and Sanchari Das. Opinion: Improving privacy and security of telehealth. *Communications of the ACM*, 67(9):27–30, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3651223.

Schneier:2024:OLD

[1377] Bruce Schneier. Opinion: LLMs' data-control path insecurity. *Communications of the ACM*, 67(9):31–32, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3660674`.

Schuler:2024:OTO

[1378] Douglas Schuler. Opinion: Tools of our tools? Exploring the cybercene conjecture. *Communications of the ACM*, 67 (9):33–36, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3654437`.

Grimmelmann:2024:LTP

[1379] James Grimmelmann. Law and technology: Public business and private accounts. *Communications of the ACM*, 67(9):37–39, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3678596`.

Bowman:2024:OAP

[1380] William J. Bowman. Opinion: ACM profits considered harmful. *Communications of the ACM*, 67(9):40–42, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3663958`.

Ryan:2024:OAR

[1381] Patricia Ryan and Vicki L. Hanson. Opinion: ACM's reserves enable its mission. *Communications of the ACM*, 67(9):43–46, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3673863`.

Guo:2024:TAU

[1382] Jinnan Guo, Peter Pietzuch, Andrew Paverd, and Kapil Vaswani. Trustworthy AI using confidential federated learning. *Communications of the ACM*, 67(9):48–53, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3677390`.

White:2024:RAA

[1383] Ryen W. White. Research and advances: Advancing the search frontier with AI agents. *Communications of the ACM*, 67(9):54–65, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3655615`.

Wan:2024:RAV

[1384] Zishen Wan, Yiming Gan, Bo Yu, Shaoshan Liu, Arijit Raychowdhury, and Yuhao Zhu. Research and advances: The vulnerability-adaptive protection paradigm. *Communications of the ACM*, 67(9):66–77, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3647638`.

Lewis:2024:RHL

[1385] Clayton H. Lewis. Research highlights: Looking ahead at inclusive technology. *Communications of the ACM*, 67(9):79, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3655634`.

Goodman:2024:RHL

[1386] Steven M. Goodman, Erin Buehler, Patrick Clary, Andy Coenen, Aaron Donsbach, Tiffanie N. Horne, Michal Lahav, Robert MacDonald, Rain Breaw Michaels, Ajit Narayanan, Mahima Pushkarna, Joel Riley, Alex Santana, Lei Shi, Rachel Sweeney, Phil Weaver, Ann Yuan, and Meredith Ringel Morris. Research highlights: LaMPost: AI writing assistance for adults with dyslexia using large language models. *Communications of the ACM*, 67 (9):80–89, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3626952.

Mone:2024:LBI

[1387] Gregory Mone. Last byte: Imagining intelligent machines. *Communications of the ACM*, 67(9):92–ff, September 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673650.

Cerf:2024:CGD

[1388] Vinton G. Cerf. Cerf's up: The global digital compact. *Communications of the ACM*, 67(10):5, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3689426.

Hill:2024:BDA

[1389] Robin K. Hill. BLOG@CACM: Do all problems have technical fixes? *Communications of the ACM*, 67(10):6–7, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3677381.

Monroe:2024:NFI

[1390] Don Monroe. News: Faster integer programming. *Communications of the ACM*, 67(10):9–11, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3677384.

Westfall:2024:NNV

[1391] Ron Westfall. News: Non-volatile memory technology poised for game-changing breakthrough. *Communications of the ACM*, 67(10):12–14, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3686259.

Edwards:2024:NHF

[1392] Chris Edwards. News: a hybrid future for AI: The drive for efficiency brings large language models out of the cloud. *Communications of the ACM*, 67(10):15–17, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3677387.

Sarkar:2024:OAS

[1393] Advait Sarkar. Opinion: AI should challenge, not obey. *Communications of the ACM*, 67(10):18–21, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3649404.

Cusumano:2024:TSMb

[1394] Michael A. Cusumano. Technology strategy and management: Private crypto versus public digital. *Communications of the ACM*, 67(10):22–25, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3685761.

Chakraborty:2024:OPD

[1395] Tanmoy Chakraborty and Sarah Masud. Opinion: The Promethean dilemma of AI at the intersection of hallucination and creativity. *Communications of the ACM*, 67(10):26–28, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3652102.

Neville-Neil:2024:KVR

[1396] George V. Neville-Neil. Kode Vicious: Repeat, reproduce, replicate. *Communications of the ACM*, 67(10):29–30, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3685699.

Vahdat:2024:ONC

[1397] Amin Vahdat, Xiaoyu Ma, and David Patterson. Opinion: New computer evaluation metrics for a changing world. *Communications of the ACM*, 67(10):31–33, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637867.

Garcia-Tobin:2024:ESA

[1398] Charles Garcia-Tobin and Mark Knight. Elevating security with Arm CCA. *Communications of the ACM*, 67(10):34–39, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3685700.

Johnson:2024:CCG

[1399] Matthew A. Johnson, Stavros Volos, Ken Gordon, Sean T. Allen, Christoph M. Wintersteiger, Sylvan Clebsch, John Starks, and Manuel Costa. Confidential container groups. *Communications of the ACM*, 67(10):40–49, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3686261.

Lo:2024:RAS

[1400] Kyle Lo, Joseph Chee Chang, Andrew Head, Jonathan Bragg, Amy X. Zhang, Cassidy Trier, Chloe Anastasiades, Tal August, Russell Authur, Danielle Bragg, Erin Bransom, Isabel Cachola, Stefan Candra, Yoganand Chandrasekhar, Yen-Sung Chen, Evie Yu-Yen Cheng, Yvonne Chou, Doug Downey, Rob Evans, Raymond Fok, Fangzhou Hu, Regan Huff, Dongyeop Kang, Tae Soo Kim, Rodney Kinney, Aniket Kittur, Hyeonsu B. Kang, Egor Klevak, Bailey Kuehl, Michael J. Langan, Matt Latzke, Jaron Lochner, Kelsey MacMillan, Eric Marsh, Tyler Murray, Aakanksha Naik, Ngoc-Uyen Nguyen, Srishti Palani, Soya Park, Caroline Paulic, Napol Rachatasumrit, Smita Rao, Paul Sayre, Zejiang Shen, Pao Siangliulue, Luca Soldaini, Huy Tran, Madeleine van Zuylen, Lucy Lu Wang, Christopher Wilhelm, Caroline Wu, Jiangjiang Yang, Angele Zamarron, Marti A. Hearst, and Daniel S. Weld. Research and advances: The Semantic Reader Project. *Communications of the ACM*, 67(10):50–61, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3659096`.

Belchior:2024:RAB

[1401] Rafael Belchior, Jan Süßenguth, Qi Feng, Thomas Hardjono, André Vasconcelos, and Miguel Correia. Research and advances: a brief history of blockchain interoperability. *Communications of the ACM*, 67(10):62–69, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3648607`.

Manivannan:2024:RAM

[1402] Aravinth Manivannan, Sibi Chakkaravarthy Sethuraman, and Devi Priya Vimala Sudhakaran. Research and advances: mCaptcha: Replacing captchas with rate limiters to improve security and accessibility. *Communications of the ACM*, 67(10):70–80, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3660628`.

Haddadi:2024:RHR

[1403] Hamed Haddadi. Research highlights: Revealing the cracks in AA services. *Communications of the ACM*, 67(10):82, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3656182`.

Schmidt:2024:RHS

[1404] Thomas C. Schmidt, Pouyan Fotouhi Tehrani, Eric Osterweil, and Matthias Wählisch. Research highlights: a security model for Web-based communication. *Communications of the ACM*, 67(10):83–90, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3623292`.

Ceze:2024:RHO

[1405] Luis Ceze. Research highlights: Optimizing convolution neural nets with a unified transformation approach. *Communications of the ACM*, 67(10):91, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3657630`.

Turner:2024:RHN

[1406] Jack Turner, Elliot J. Crowley, and Michael F. P. O'Boyle. Research highlights: Neural architecture search as program transformation exploration. *Communications of the ACM*, 67(10):92–100, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3624775`.

Shasha:2024:LBR

[1407] Dennis Shasha. Last byte: Rational gambling. *Communications of the ACM*, 67(10):104–ff, October 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3685698`.

Vardi:2024:VIW

[1408] Moshe Y. Vardi. Vardi's insights: What is theoretical computer science? *Communications of the ACM*, 67(11):5, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317

(electronic). URL https://dl.acm.org/doi/10.1145/3698060.

Sankaralingam:2024:BWO

[1409] Karu Sankaralingam. BLOG@CACM: A whimsical odyssey through the maze of scholarly reviews. *Communications of the ACM*, 67(11):6–7, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3686260.

Greengard:2024:NRT

[1410] Samuel Greengard. News: Room-temperature superconductivity heats up. *Communications of the ACM*, 67 (11):8–10, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3686308.

Savage:2024:NAD

[1411] Neil Savage. News: Automating detective work. *Communications of the ACM*, 67(11):11–13, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3686309.

Mone:2024:NCR

[1412] Gregory Mone. News: The chiplet revolution. *Communications of the ACM*, 67(11):14–16, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3686310.

Haigh:2024:HRB

[1413] Thomas Haigh. Historical reflections: Between the booms: AI in winter. *Communications of the ACM*, 67(11): 18–23, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3688379.

Samuelson:2024:LSD

[1414] Pamela Samuelson. Legally speaking: Do social media platforms have free speech rights to 'censor' conservatives? *Communications of the ACM*, 67(11):24–26, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3689595.

Neumann:2024:IRF

[1415] Peter G. Neumann and Ulf Lindqvist. Inside risks: The future of misuse detection. *Communications of the ACM*, 67(11):27–28, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3689596.

VanAlstyne:2024:EBD

[1416] Marshall Van Alstyne. Economic and business dimensions: Free speech vs. free ride: Navigating the Supreme Court's social media paradox. *Communications of the ACM*, 67(11):29–31, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3696194.

Widder:2024:OWB

[1417] David Gray Widder and Claire Le Goues. Opinion: What is a 'bug'? *Communications of the ACM*, 67(11): 32–34, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3662730.

Machanick:2024:OML

[1418] Philip Machanick. Opinion: Mentorship lessons from growing a developing country journal. *Communications of the ACM*, 67(11):35–37, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3663472.

Collier-Brown:2024:YDK

[1419] David Collier-Brown. You don't know jack about bandwidth. *Communications of the ACM*, 67(11):38–41, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3690840.

Khemka:2024:TEA

[1420] Mansi Khemka and Brian Houck. Toward effective AI support for developers: a survey of desires and concerns. *Communications of the ACM*, 67 (11):42–49, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3690928.

Dhar:2024:RAP

[1421] Vasant Dhar. Research and advances: The paradigm shifts in artificial intelligence. *Communications of the ACM*, 67(11):50–59, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3664804.

Markov:2024:RAR

[1422] Igor L. Markov. Research and advances: Reevaluating Google's reinforcement learning for IC macro placement. *Communications of the ACM*, 67 (11):60–71, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3676845.

Zimmermann:2024:RAH

[1423] Verena Zimmermann, Lorin Schöni, Thierry Schaltegger, Benjamin Ambuehl, Melanie Knieps, and Nico Ebert. Research and advances: Human-centered cybersecurity revisited: From enemies to partners. *Communications of the ACM*, 67(11):72–81, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3665665.

Shen:2024:RAD

[1424] Xudong Shen, Hannah Brown, Jiashu Tao, Martin Strobel, Yao Tong, Akshay Narayan, Harold Soh, and Finale Doshi-Velez. Research and advances: Directions of technical innovation for regulatable AI systems. *Communications of the ACM*, 67(11): 82–89, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3653670.

Hurst:2024:RHA

[1425] Amy Hurst. Research highlights: An accessible solution to unlock museums. *Communications of the ACM*, 67(11):92, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3656371.

Wang:2024:RHB

[1426] Xiyue Wang, Seita Kayukawa, Hironobu Takagi, and Chieko Asakawa.

Research highlights: BentoMuseum: 3D and layered interactive museum map for blind visitors. *Communications of the ACM*, 67(11):93–102, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3617678`.

Biggio:2024:RHM

[1427] Battista Biggio. Research highlights: Machine learning in computer security is difficult to fix. *Communications of the ACM*, 67(11):103, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3655635`.

Arp:2024:RHP

[1428] Daniel Arp, Erwin Quiring, Feargus Pendlebury, Alexander Warnecke, Fabio Pierazzi, Christian Wressnegger, Lorenzo Cavallaro, and Konrad Rieck. Research highlights: Pitfalls in machine learning for computer security. *Communications of the ACM*, 67(11): 104–112, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3643456`.

Hoffmann:2024:LBL

[1429] Leah Hoffmann. Last byte: Looking within. *Communications of the ACM*, 67(11):116–ff, November 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3695858`.

Ioannidis:2024:PTP

[1430] Yannis Ioannidis. From the President: The 5th paradigm: AI-driven scientific discovery. *Communications of the ACM*, 67(12):5, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3702970`.

Cerf:2024:CW

[1431] Vinton G. Cerf. Cerf's up: Warnings!! *Communications of the ACM*, 67(12):7, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3701556`.

Lu:2024:CCD

[1432] Wei Lu. Careers in computing: From dot matrix to data: a journey through technology and leadership. *Communications of the ACM*, 67(12):9, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3701267`.

Anonymous:2024:LED

[1433] Anonymous. Letters to the Editor: Diversity examples inappropriate. *Communications of the ACM*, 67 (12):10–11, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3701555`.

Bagchi:2024:BCC

[1434] Saurabh Bagchi. BLOG@CACM: Considering conference contributions. *Communications of the ACM*, 67(12): 12–13, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3695859`.

Greengard:2024:NIP

[1435] Samuel Greengard. News: Is it possible to truly understand performance in LLMs? *Communications of the ACM*, 67(12):14–16, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3695860.

Shein:2024:NAJ

[1436] Esther Shein. News: AI judging in sports. *Communications of the ACM*, 67(12):17–19, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3695861.

Kugler:2024:NCS

[1437] Logan Kugler. News: A camera the size of a grain of salt could change imaging as we know it. *Communications of the ACM*, 67(12):20–22, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3695862.

Spafford:2024:MMA

[1438] Eugene H. Spafford and Simson L. Garfinkel. In memoriam: In memoriam: E. Allen Emerson. *Communications of the ACM*, 67(12):23, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3702968.

Denning:2024:PIA

[1439] Peter J. Denning and Ted G. Lewis. The profession of IT: An AI learning hierarchy. *Communications of the ACM*, 67(12):24–27, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3699525.

Morris:2024:OPC

[1440] Meredith Ringel Morris. Opinion: Prompting considered harmful. *Communications of the ACM*, 67(12):28–30, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3673861.

Werder:2024:OED

[1441] Karl Werder, Lan Cao, Balasubramaniam Ramesh, and Eun Hee Park. Opinion: Empower diversity in AI development. *Communications of the ACM*, 67(12):31–34, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3676885.

Neville-Neil:2024:KVU

[1442] George V. Neville-Neil. Kode vicious: Unwanted surprises. *Communications of the ACM*, 67(12):35–36, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3699526.

Cranor:2024:PNC

[1443] Lorrie Faith Cranor. Privacy: Notice and choice cannot stand alone. *Communications of the ACM*, 67(12):37–39, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3699527.

Mankoff:2024:OAM

[1444] Jennifer Mankoff, Devva Kasnitz, L. Jean Camp, Jonathan Lazar, and Harry Hochheiser. Opinion: AI must be anti-ableist and accessible. *Communications of the ACM*, 67(12):40–42, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3662731`.

Popa:2024:CCC

[1445] Raluca Ada Popa. Confidential computing or cryptographic computing? *Communications of the ACM*, 67(12): 44–51, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3677616`.

Li:2024:TSM

[1446] Qian Li and Peter Kraft. Transactions and serverless are made for each other. *Communications of the ACM*, 67 (12):52–56, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3690930`.

Bellogin:2024:RAE

[1447] Alejandro Bellogín, Oliver Grau, Stefan Larsson, Gerhard Schimpf, Biswa Sengupta, and Gürkan Solmaz. Research and advances: The EU AI Act and the wager on trustworthy AI. *Communications of the ACM*, 67 (12):58–65, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3665322`.

Ren:2024:RAB

[1448] Xuebin Ren, Shusen Yang, Cong Zhao, Julie McCann, and Zongben Xu. Research and advances: Belt and braces: When federated learning meets differential privacy. *Communications of the ACM*, 67(12):66–77, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3650028`.

Catarci:2024:RAE

[1449] Tiziana Catarci, Giuseppina De Nicola, and Daniel Raffini. Research and advances: Ethics and cultural background as key factors for an attractive metaverse. *Communications of the ACM*, 67(12):78–84, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3674722`.

Bratus:2024:RHH

[1450] Sergey Bratus. Research highlights: How exploits impact computer science theory. *Communications of the ACM*, 67(12):86, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3656180`.

Eitel:2024:RHC

[1451] Jeffery A. Eitel, Thomas S. Benjamin, Jesse Elwell, Dmitry Evtyushkin, Abhrajit Ghosh, and Angelo Sapello. Research highlights: Computing with time: Microarchitectural weird machines. *Communications of the ACM*, 67(12):87–95, December 2024. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3610722.

Taufer:2024:RHM

[1452] Michela Taufer. Research highlights: Mirror, mirror on the wall, what is the best topology of them all? *Communications of the ACM*, 67(12):96, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3656181.

Hoefler:2024:RHH

[1453] Torsten Hoefler, Tommaso Bonoto, Daniele De Sensi, Salvatore Di Girolamo, Shigang Li, Marco Heddes, Deepak Goel, Miguel Castro, and Steve Scott. Research highlights: HammingMesh: a network topology for large-scale deep learning. *Communications of the ACM*, 67(12):97–105, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623490.

Hoffmann:2024:LBP

[1454] Leah Hoffmann. Last byte: Personalizing interactions: With socially assistive robots. *Communications of the ACM*, 67(12):108–ff, December 2024. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3695886.

Vardi:2025:VIWa

[1455] Moshe Y. Vardi. Vardi's insights: I was wrong about the ethics crisis. *Communications of the ACM*, 68(1):5, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3704959.

Anonymous:2025:LEI

[1456] Anonymous. Letters to the Editor: Is it math or CS? Or is it both? *Communications of the ACM*, 68(1):6–7, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3705870.

Beck:2025:BCU

[1457] Micah D. Beck, Brenna Bentley, and Anika Roskowski. BLOG@CACM: Connecting the unconnected. *Communications of the ACM*, 68(1):8–9, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3700133.

Edwards:2025:NSR

[1458] Chris Edwards. News: The secret of Ramsey numbers: a new order forms out of randomness. *Communications of the ACM*, 68(1):11–13, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3696658.

Kugler:2025:NWO

[1459] Logan Kugler. News: Who owns AI's output? *Communications of the ACM*, 68(1):14–16, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3696671.

Monroe:2025:NAD

[1460] Don Monroe. News: Addressing the data storage crisis. *Communications of the ACM*, 68(1):17–19, January 2025. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3696672.

Almeida:2025:OTA

[1461] Virgílio Almeida, Ricardo Fabrino Mendonça, and Fernando Filgueiras. Opinion: Thinking of algorithms as institutions. *Communications of the ACM*, 68(1):20–23, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3680411.

Deumens:2025:SCR

[1462] Erik Deumens and Carolyn Ellis. Security: Compliance requirements in research. *Communications of the ACM*, 68(1):24–26, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3704286.

Grimmelmann:2025:LTF

[1463] James Grimmelmann. Law and technology: The fine line between persuasion and coercion. *Communications of the ACM*, 68(1):27–29, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3704287.

Cusumano:2025:TSMa

[1464] Michael A. Cusumano. Technology strategy and management: Intel's fall from grace. *Communications of the ACM*, 68(1):30–32, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3704288.

Huttel:2025:OPS

[1465] Hans Hüttel. Opinion: On program synthesis and large language models. *Communications of the ACM*, 68(1):33–35, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3680410.

Corneliussen:2025:OSG

[1466] Hilde G. Corneliussen. Opinion: 'superpowers' of gender equality failing to establish gender balance in IT. *Communications of the ACM*, 68(1):36–38, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3680541.

Waldo:2025:GH

[1467] Jim Waldo and Soline Boussard. GPTs and hallucination. *Communications of the ACM*, 68(1):40–45, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3703757.

Vachon:2025:TAH

[1468] Phil Vachon. Test accounts: a hidden risk. *Communications of the ACM*, 68(1):46–49, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3703635.

Porter:2025:RAS

[1469] Barry Porter, Penn Faulkner Rainford, and Roberto Rodrigues-Filho. Research and advances: Self-designing software. *Communications of the ACM*, 68(1):50–59, January 2025. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3678165.

Venkatasubramanian:2025:RAC

[1470] Krishna Venkatasubramanian, Tina-Marie Ranalli, Priyankan Kirupaharan, and Liam Cannon. Research and advances: Considering trauma in accessible design for adults with intellectual and developmental disabilities. *Communications of the ACM*, 68(1):60–67, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3676310.

Parkinson:2025:RAI

[1471] Jack Parkinson and Lauren Margulieux. Research and advances: Improving CS performance by developing spatial skills. *Communications of the ACM*, 68(1):68–75, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3680409.

Tsudik:2025:RHT

[1472] Gene Tsudik. Research highlights: Tracing the network traffic fingerprinting techniques of OpenVPN. *Communications of the ACM*, 68(1):78, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3657629.

Xue:2025:RHO

[1473] Diwen Xue, Reethika Ramesh, Arham Jain, Michaelis Kallitsis, J. Alex Halderman, Jedidiah R. Crandall, and Roya Ensafi. Research highlights: OpenVPN is open to VPN fingerprinting. *Communications of the ACM*, 68(1):79–87, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3618117.

Neate:2025:RHC

[1474] Timothy Neate. Research highlights: Can AI keep accessible communication in the picture? *Communications of the ACM*, 68(1):88, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3656178.

deVargas:2025:RHA

[1475] Mauricio Fontana de Vargas, Jiamin Dai, and Karyn Moffatt. Research highlights: AAC with automated vocabulary from photographs: Insights from school and speech-language therapy settings. *Communications of the ACM*, 68(1):89–96, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3623505.

Shasha:2025:LBC

[1476] Dennis Shasha. Last byte: Cylinder lottery. *Communications of the ACM*, 68(1):100–FF, January 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3702335.

Cerf:2025:CBS

[1477] Vinton G. Cerf. Cerf's up: Building safer and interoperable AI systems. *Communications of the ACM*, 68(2):5, February 2025. CODEN CACMA2. ISSN 0001-0782 (print),

1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3709744.

Fitzpatrick:2025:CPC

[1478] Geraldine Fitzpatrick. Career paths in computing: Fit for people, fit for purpose: Designing tech that matters. *Communications of the ACM*, 68(2):7, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3708470.

Williams:2025:BGI

[1479] Alex Williams. BLOG@CACM: Going to the cloud. *Communications of the ACM*, 68(2):8–9, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3701221.

Greengard:2025:NCL

[1480] Samuel Greengard. News: Can LLMs make robots smarter? *Communications of the ACM*, 68(2):11–13, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3701227.

Shein:2025:NEC

[1481] Esther Shein. News: The evolution of computer science at the university level. *Communications of the ACM*, 68(2):14–16, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3701223.

Savage:2025:NBI

[1482] Neil Savage. News: Brain implants give people back what they lost. *Communications of the ACM*, 68(2):17–19, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3701222.

Felderer:2025:OIR

[1483] Michael Felderer, Michael Goedicke, Lars Grunske, Wilhelm Hasselbring, Anna-Lena Lamprecht, and Bernhard Rumpe. Opinion: Investigating research software engineering: Toward RSE research. *Communications of the ACM*, 68(2):20–23, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3685265.

Haigh:2025:HRA

[1484] Thomas Haigh. Historical reflections: Artificial intelligence then and now. *Communications of the ACM*, 68(2):24–29, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3708554.

Gorton:2025:OTC

[1485] Ian Gorton, Alessio Bucaioni, and Patrizio Pelliccione. Opinion: Technical credit. *Communications of the ACM*, 68(2):30–33, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3690043.

Neville-Neil:2025:KVB

[1486] George V. Neville-Neil. Kode vicious: Building on shaky ground. *Communications of the ACM*, 68(2):34–35, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317

(electronic). URL https://dl.acm.org/doi/10.1145/3707467.

Patterson:2025:OLL

[1487] David A. Patterson. Opinion: Life lessons from the first half-century of my career. *Communications of the ACM*, 68(2):36–39, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3637905.

Watson:2025:IRI

[1488] Robert N. M. Watson, John Baldwin, David Chisnall, Tony Chen, Jessica Clarke, Brooks Davis, Nathaniel Filardo, Brett Gutstein, Graeme Jenkinson, Ben Laurie, Alfredo Mazzinghi, Simon Moore, Peter G. Neumann, Hamed Okhravi, Alex Richardson, Alex Rebert, Peter Sewell, Laurence Tratt, Murali Vijayaraghavan, Hugo Vincent, and Konrad Witaszczyk. Inside risks: It is time to standardize principles and practices for software memory safety. *Communications of the ACM*, 68(2):40–45, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3708553.

Hayes:2025:QCE

[1489] Catherine Hayes and David Malone. Questioning the criteria for evaluating non-cryptographic hash functions. *Communications of the ACM*, 68(2):46–51, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3704255.

Tang:2025:RAM

[1490] Chunqiang Tang. Research and advances: Meta's hyperscale infrastructure: Overview and insights. *Communications of the ACM*, 68(2):52–63, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3701296.

Rode:2025:RAJ

[1491] Jennifer A. Rode, Luis A. Castro, Varun Viswanath, Maria Concepcion Valdez Gastelum, Afra Mashhadi, Monica Tentori, Kristof Van Laerhoven, and Nadir Weibel. Research and advances: Justice, equity, diversity, and inclusion at UbiComp/ISWC: Best practices for accessible and equitable computing conferences. *Communications of the ACM*, 68(2):64–73, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3689820.

Namjoshi:2025:RAP

[1492] Kedar S. Namjoshi and Lenore D. Zuck. Research and advances: Program correctness through self-certification. *Communications of the ACM*, 68(2): 74–84, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3689624.

Peng:2025:RHS

[1493] Richard Peng. Research highlights: Shortening the path to designing efficient graph algorithms. *Communications of the ACM*, 68(2):86, February 2025. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3660528.

Bernstein:2025:RHN

[1494] Aaron Bernstein, Danupon Nanongkai, and Christian Wulff-Nilsen. Research highlights: Negative-weight single-source shortest paths in near-linear time. *Communications of the ACM*, 68(2):87–94, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3631536.

Holz:2025:RHU

[1495] Thorsten Holz. Research highlights: Unsafe code still a hurdle Copilot must clear. *Communications of the ACM*, 68(2):95, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3660529.

Pearce:2025:RHA

[1496] Hammond Pearce, Baleegh Ahmad, Benjamin Tan, Brendan Dolan-Gavitt, and Ramesh Karri. Research highlights: Asleep at the keyboard? Assessing the security of GitHub Copilot's code contributions. *Communications of the ACM*, 68(2):96–105, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3610721.

Studebaker:2025:LBH

[1497] David Studebaker. Last byte: a heavenly host. *Communications of the ACM*, 68(2):108–ff, February 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3708556.

Vardi:2025:VIH

[1498] Moshe Y. Vardi. Vardi's insights: Homo ratiocinator (reckoning human). *Communications of the ACM*, 68(3):5, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3714998.

Fan:2025:BPS

[1499] Wang Fan and Liu Shaoshan. BLOG@CACM: Putting the smarts into robot bodies. *Communications of the ACM*, 68(3):6–8, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3703761.

Edwards:2025:NFL

[1500] Chris Edwards. News: Feedback loops guide AI to proof checking. *Communications of the ACM*, 68(3):9–11, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3703778.

Halper:2025:NHS

[1501] Mark Halper. News: How software bugs led to "One of the Greatest Miscarriages of Justice" in British history. *Communications of the ACM*, 68(3):12–14, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3703779.

Ceurstemont:2025:NCA

[1502] Sandrine Ceurstemont. News: Controlling AI's growing energy needs. *Communications of the ACM*, 68(3):15–17, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3703788.

Samuelson:2025:LSC

[1503] Pamela Samuelson. Legally speaking: California's AI Act vetoed. *Communications of the ACM*, 68(3):18–20, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3710808.

Denning:2025:PIA

[1504] Peter J. Denning. The profession of IT: Abstractions. *Communications of the ACM*, 68(3):21–23, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3710809.

West:2025:AAP

[1505] Robert West and Roland Aydin. The AI alignment paradox: The AI alignment paradox. *Communications of the ACM*, 68(3):24–26, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3705294.

Santos:2025:OAI

[1506] Charles Morphy D. Santos and João Paulo Gois. Opinion: Artificial intelligence as catalyst for biodiversity understanding. *Communications of the ACM*, 68(3):27–29, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3701570.

West:2025:OGP

[1507] Jack West, Jingjie Li, and Kassem Fawaz. Opinion: A glimpse into the Pandora's Box. *Communications of the ACM*, 68(3):30–32, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3714417.

Lahiri:2025:PMW

[1508] Shuvendu K. Lahiri, Alexey Svyatkovskiy, Christian Bird, Erik Miejer, and Terry Coatta. Program merge: What's deep learning got to do with it? *Communications of the ACM*, 68(3):34–41, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3704254.

Veselovsky:2025:RAP

[1509] Veniamin Veselovsky, Manoel Horta Ribeiro, Philip J. Cozzolino, Andrew Gordon, David Rothschild, and Robert West. Research and advances: Prevalence and prevention of large language model use in crowd work. *Communications of the ACM*, 68(3):42–47, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3685527.

Feng:2025:RAE

[1510] Xuewei Feng, Qi Li, Kun Sun, Ke Xu, and Jianping Wu. Research and advances: Exploiting cross-layer vulnerabilities: Off-path attacks on the TCP/IP protocol suite. *Communications of the ACM*, 68(3):48–59, March 2025. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3689819.

Felicetti:2025:RAM

[1511] Luca Felicetti, Mauro Femminella, and Gianluca Reali. Research and advances: Molecular communications in blood vessels: Models, analysis, and enabling technologies. *Communications of the ACM*, 68(3):60–69, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3696205.

Eeckhout:2025:RAS

[1512] Lieven Eeckhout. Research and advances: The sustainability gap for computing: Quo vadis? *Communications of the ACM*, 68(3):70–79, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3699595.

Feige:2025:RHS

[1513] Uriel Feige. Research highlights: The surprising power of spectral refutation. *Communications of the ACM*, 68(3):82, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3660530.

Guruswami:2025:RHN

[1514] Venkatesan Guruswami, Pravesh K. Kothari, and Peter Manohar. Research highlights: New spectral algorithms for refuting smoothed k-SAT. *Communications of the ACM*, 68(3):83–91, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3635117.

Cormode:2025:RHT

[1515] Graham Cormode. Research highlights: Technical perspective: Toward building a differentially private DBMS. *Communications of the ACM*, 68(3):92, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3708551.

Dong:2025:RHR

[1516] Wei Dong, Juanru Fang, Ke Yi, Yuchao Tao, and Ashwin Machanavajjhala. Research highlights: R2T: Instance-optimal truncation for differentially private query evaluation with foreign keys. *Communications of the ACM*, 68(3):93–101, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3708494.

Hoffmann:2025:LBB

[1517] Leah Hoffmann. Last byte: Not on the best path. *Communications of the ACM*, 68(3):104–ff, March 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3707200.

Cerf:2025:CR

[1518] Vinton G. Cerf. Cerf's up: Remember. *Communications of the ACM*, 68(4):5, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL https://dl.acm.org/doi/10.1145/3720453.

Saetra:2025:BLX

[1519] Henrik Skaug Sætra. BLOG@CACM: Leaving X. *Communications of the ACM*, 68(4):6–7, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708968`.

Edwards:2025:NWW

[1520] Chris Edwards. News: When will this end? *Communications of the ACM*, 68(4):9–11, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708969`.

Marks:2025:NGD

[1521] Paul Marks. News: Guide dogs are expensive and scarce. could robots do their job? *Communications of the ACM*, 68(4):12–14, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708970`.

Kugler:2025:NHD

[1522] Logan Kugler. News: How do you measure AI? *Communications of the ACM*, 68(4):15–17, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708972`.

Felin:2025:TSM

[1523] Teppo Felin and Mari Sako. Technology strategy and management: Does AI prediction scale to decision making? *Communications of the ACM*, 68(4):18–21, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3722138`.

Neville-Neil:2025:KVD

[1524] George V. Neville-Neil. Kode vicious: The drunken plagiarists. *Communications of the ACM*, 68(4):22–23, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3715926`.

Christoforou:2025:OCA

[1525] Evgenia Christoforou, Gianluca Demartini, and Jahna Otterbacher. Opinion: Crowdsourcing or AI sourcing? *Communications of the ACM*, 68(4): 24–27, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3706101`.

Wu:2025:OAQ

[1526] Shuang Wu, Bo Yu, Shaoshan Liu, and Yuhao Zhu. Opinion: Autonomy 2.0: The quest for economies of scale. *Communications of the ACM*, 68(4):28–32, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708012`.

White:2025:OPI

[1527] Ryen W. White and Chirag Shah. Opinion: Panmodal information interaction. *Communications of the ACM*, 68(4):33–36, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3701534`.

Branham:2025:SDA

[1528] Stacy M. Branham, Shahtab Wahid, Sheri Byrne-Haber, Jamal Mazrui, Carlos Muncharaz, and Carl Myhill.

The state of digital accessibility. *Communications of the ACM*, 68(4):38–41, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3720518`.

Leffew:2025:RAI

[1529] Barry A. Leffew, René Riedl, David Gefen, and Arik Ragowsky. Research and advances: The importance of distrust in trusting digital worker chatbots. *Communications of the ACM*, 68(4):42–49, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3701297`.

Obrist:2025:RAM

[1530] Marianna Obrist and Carlos Velasco. Research and advances: Multisensory experiences: Formation, realization, and responsibilities. *Communications of the ACM*, 68(4):50–59, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3699594`.

Saetra:2025:RAPa

[1531] Henrik Skaug Sætra. Research and advances: Preprinting in AI ethics: Toward a set of community guidelines. *Communications of the ACM*, 68(4):60–68, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3699951`.

Salem:2025:RHA

[1532] Kenneth Salem. Research highlights: Ad hoc transactions: What they are and why we should care. *Communications of the ACM*, 68(4):70, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708914`.

Wang:2025:RHM

[1533] Chuzhe Tang, Zhaoguo Wang, Xiaodong Zhang, Qianmian Yu, Binyu Zang, Haibing Guan, and Haibo Chen. Research highlights: Many faces of ad hoc transactions. *Communications of the ACM*, 68(4):71–80, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708552`.

Zhou:2025:RHT

[1534] Xia Zhou. Research highlights: The technologies that disappear. *Communications of the ACM*, 68(4):81, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708915`.

Kiaghadi:2025:RHF

[1535] Ali Kiaghadi, Seyedeh Homayounfar, Trisha Andrew, Deepak Ganesan, and Jin Huang. Research highlights: FabToys: Large arrays of fabric-based pressure sensors in plush toys to detect fine-grained interaction. *Communications of the ACM*, 68(4):82–90, April 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3708913`.

Shasha:2025:LBEa

[1536] Dennis Shasha. Last byte: Efficient go bags. *Communications of the ACM*, 68(4):92, April 2025. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3715924`.

Vardi:2025:VIB

[1537] Moshe Y. Vardi. Vardi's insights: Big tech, you need academia. speak up! *Communications of the ACM*, 68(05): 5, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hill:2025:BPP

[1538] Robin K. Hill. BLOG@CACM: In pursuit of professionalism. *Communications of the ACM*, 68(05):6–7, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Greengard:2025:NSL

[1539] Samuel Greengard. News: Shining a light on AI hallucinations. *Communications of the ACM*, 68(05):9–11, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shein:2025:NOP

[1540] Esther Shein. News: The outlook for programmers. *Communications of the ACM*, 68(05):12–14, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ceurstemont:2025:NAT

[1541] Sandrine Ceurstemont. News: Automating tools for prompt engineering. *Communications of the ACM*, 68(05):15–17, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Grimmelmann:2025:LTT

[1542] James Grimmelmann. Law and technology: The TikTok ban and its consequences. *Communications of the ACM*, 68(05):18–20, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Weber:2025:ECW

[1543] Sabine Weber. Education: Can we build AI that does not harm queer people? *Communications of the ACM*, 68(05):21–23, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sloane:2025:OBC

[1544] Mona Sloane. Opinion: Boolean clashes: Discretionary decision making in AI-driven recruiting. *Communications of the ACM*, 68(05):24–26, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kakas:2025:OPA

[1545] Antonis Kakas. Opinion: The pollution of AI. *Communications of the ACM*, 68(05):27–30, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Quinn:2025:DRR

[1546] Andrew Quinn and Peter Alvaro. Deterministic record-and-replay. *Communications of the ACM*, 68(05):32–34, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Marion:2025:RAR

[1547] Jean-Yves Marion. Research and advances: Ransomware: Extortion is my business. *Communications of the ACM*, 68(05):36–47, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Zhang:2025:RAE

[1548] Jizhi Zhang, Keqin Bao, Wenjie Wang, Yang Zhang, Wentao Shi, Wanhong Xu, Fuli Feng, and Tat-Seng Chua. Research and advances: Envisioning recommendations on an LLM-based agent platform. *Communications of the ACM*, 68(05):48–57, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Waller:2025:RAW

[1549] Annalu Waller, Tom Griffiths, and Per Ola Kristensson. Research and advances: 'what I think about when I type about talking': Reflections on text-entry acceleration interfaces. *Communications of the ACM*, 68(05): 58–68, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sun:2025:RAC

[1550] Peter Buneman, Dennis Dosso, Matteo Lissandrini, Gianmaria Silvello, and He Sun. Research and advances: Can we measure the impact of a database? *Communications of the ACM*, 68(05):69–76, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Turakhia:2025:RHT

[1551] Yatish Turakhia. Research highlights: Toward a generalized accelerator for genome sequence analysis. *Communications of the ACM*, 68(05):80, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Subramaniyan:2025:RHG

[1552] Yufeng Gu, Arun Subramaniyan, Tim Dunn, Alireza Khadem, Kuan-Yu Chen, Somnath Paul, Mohammad Vasimuddin, Sanchit Misra, David Blaauw, Satish Narayanasamy, and Reetuparna Das. Research highlights: GenDP: a framework of dynamic programming acceleration for genome sequencing analysis. *Communications of the ACM*, 68(05):81–90, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kraska:2025:RHW

[1553] Tim Kraska. Research highlights: A write-optimized distributed B+Tree index on disaggregated memory. *Communications of the ACM*, 68(05):91, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wang:2025:RHD

[1554] Qing Wang, Youyou Lu, and Jiwu Shu. Research highlights: Designing an efficient tree index on disaggregated memory. *Communications of the ACM*, 68(05):92–100, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Rezaei:2025:LBE

[1555] Mina Rezaei. Last byte: Explorers' intangible power. *Communications of the ACM*, 68(05):104–ff, May 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cerf:2025:CRB

[1556] Vinton G. Cerf. Cerf's up: Revenge of the bots. *Communications of the ACM*, 68(6):5, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Beck:2025:BAC

[1557] Micah D. Beck. BLOG@CACM: Accept the consequences. *Communications of the ACM*, 68(6):6–7, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Savage:2025:NRL

[1558] Neil Savage. News: a rewarding line of work. *Communications of the ACM*, 68(6):8–10, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Savage:2025:NCG

[1559] Neil Savage. News: The collapse of GPT. *Communications of the ACM*, 68(6):11–13, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shein:2025:NAA

[1560] Esther Shein. News: AI and art. *Communications of the ACM*, 68(6):14–16, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Mone:2025:NBA

[1561] Gregory Mone. News: Bringing AI to the edge. *Communications of the ACM*, 68(6):17–19, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bellovin:2025:IRC

[1562] Steven M. Bellovin. Inside risks: Computer science and the law. *Communications of the ACM*, 68(6):20–22, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Denning:2025:PIL

[1563] Peter J. Denning. The profession of IT: In large language models we trust? *Communications of the ACM*, 68(6):23–25, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Neville-Neil:2025:KVA

[1564] George V. Neville-Neil. Kode Vicious: Analyzing krazy kode. *Communications of the ACM*, 68(6):26–27, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Nicolajsen:2025:OWP

[1565] Sebastian Nicolajsen and Claus Brabrand. Opinion: What is programming? *Communications of the ACM*, 68(6):28–30, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Andriole:2025:OTA

[1566] Stephen J. Andriole and Noah P. Barsky. Opinion: Thoughts about some surprising AI-era technology readiness findings. *Communications of the ACM*, 68(6):31–33, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ottenheimer:2025:OWR

[1567] Davi Ottenheimer and Bruce Schneier. Opinion: Web 3.0 requires data integrity. *Communications of the ACM*, 68(6):34–36, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Desai:2025:SCP

[1568] Ankush Desai and Marc Brooker. Systems correctness practices at Amazon Web Services. *Communications of the ACM*, 68(6):38–42, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Avin:2025:RAR

[1569] Chen Avin and Stefan Schmid. Research and advances: Revolutionizing datacenter networks via reconfigurable topologies. *Communications of the ACM*, 68(6):44–53, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shah:2025:RAP

[1570] Chirag Shah. Research and advances: From prompt engineering to prompt science with humans in the loop. *Communications of the ACM*, 68(6):54–61, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sood:2025:RAM

[1571] Aditya K. Sood and Sherali Zeadally. Research and advances: Malicious AI models undermine software supply-chain security. *Communications of the ACM*, 68(6):62–71, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Paulin-Mohring:2025:RHW

[1572] Christine Paulin-Mohring. Research highlights: When proofs meet programs: an extension of dependent type theory with Church's thesis. *Communications of the ACM*, 68(6):74, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Pedrot:2025:RHU

[1573] Pierre-Marie Pédrot. Research highlights: 'upon this quote I will build my Church thesis'. *Communications of the ACM*, 68(6):75–83, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Abdulla:2025:RHS

[1574] Parosh Aziz Abdulla. Research highlights: a symbolic approach to verifying quantum systems. *Communications of the ACM*, 68(6):84, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Chen:2025:RHA

[1575] Yu-Fang Chen, Kai-Min Chung, Ondrej Lengál, Jyun-Ao Lin, Wei-Lun Tsai, and Di-De Yen. Research highlights: an automata-based framework for verification and bug hunting in quantum circuits. *Communications of the ACM*, 68(6):85–93, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hoffmann:2025:LBD

[1576] Leah Hoffmann. Last byte: Developing the foundations of reinforcment learning. *Communications of the ACM*, 68(6):96–ff, June 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Vardi:2025:VIT

[1577] Moshe Y. Vardi. Vardi's insights: I teach computer science, and that is not all. *Communications of the ACM*, 68(7):5, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Tray:2025:BEI

[1578] Alex Tray. BLOG@CACM: The ethical implications of online computer science education. *Communications of the ACM*, 68(7):6–8, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Greengard:2025:NEF

[1579] Samuel Greengard. News: The emerging face of digital dentistry. *Communications of the ACM*, 68(7):9–11, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kugler:2025:NAW

[1580] Logan Kugler. News: Advancements in weather prediction. *Communications of the ACM*, 68(7):12–14, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kugler:2025:NCS

[1581] Logan Kugler. News: Computer science under trump. *Communications of the ACM*, 68(7):15–17, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cusumano:2025:TSMb

[1582] Michael A. Cusumano. Technology strategy and management: DeepSeek inside: Origins, technology, and impact. *Communications of the ACM*, 68(7):18–22, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Zimmeck:2025:PBC

[1583] Sebastian Zimmeck. Privacy: Beyond the checkbox: Upgrading the right to opt out. *Communications of the ACM*, 68(7):23–25, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Samuelson:2025:LSA

[1584] Pamela Samuelson. Legally speaking: AI authorship revisited. *Communications of the ACM*, 68(7):26–28, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Nahar:2025:OGA

[1585] Mahjabin Nahar, Sian Lee, Rebekah Guillen, and Dongwon Lee. Opinion: Generative artificial intelligence policies under the microscope. *Communications of the ACM*, 68(7):29–33, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Danaher:2025:OFC

[1586] Brett Danaher, Jonathan Hersh, Rahul Telang, and Michael D. Smith. Opinion: Fighting crime online. *Communications of the ACM*, 68(7):34–36, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Corpus:2025:OGO

[1587] Isabel Corpus, Eric Giannella, Allison Koenecke, and Don Moynihan. Opinion: As government outsources more IT, highly skilled in-house technologists are more essential. *Communications of the ACM*, 68(7):37–40, July 2025.

CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Schmeck:2025:SCS

[1588] Hartmut Schmeck and Andrew A. Chien. Sustainability and computing section: Welcome: Sustainability and computing special section. *Communications of the ACM*, 68(7):42–44, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Lefevre:2025:SCS

[1589] Laurent Lefèvre, Adrien Berthelot, Eddy Caron, and Mathilde Jay. Sustainability and computing section: Understanding the environmental impact of generative AI services. *Communications of the ACM*, 68(7):46–53, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Li:2025:SCS

[1590] Pengfei Li, Jianyi Yang, Mohammad A. Islam, and Shaolei Ren. Sustainability and computing section: Making AI less 'thirsty'. *Communications of the ACM*, 68(7):54–61, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wright:2025:SCS

[1591] Dustin Wright, Christian Igel, Gabrielle Samuel, and Raghavendra Selvan. Sustainability and computing section: Efficiency is not enough: a critical perspective on environmentally sustainable AI. *Communications of the ACM*, 68(7): 62–69, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hajiesmaili:2025:SCS

[1592] Mohammad Hajiesmaili, Shaolei Ren, Ramesh Sitaraman, and Adam Wierman. Sustainability and computing section: Toward environmentally equitable AI. *Communications of the ACM*, 68(7):70–73, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

deMeer:2025:SCS

[1593] Hermann de Meer, Gunnar Schomaker, and Alexander Kilian. Sustainability and computing section: Energy-optimized supercomputer networks using wind energy. *Communications of the ACM*, 68(7):74–79, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Young:2025:SCS

[1594] Sydney Young, Udit Gupta, and Josiah Hester. Sustainability and computing section: Empowering users to make sustainability-forward decisions for computing services. *Communications of the ACM*, 68(7):80–85, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Lopes:2025:SCS

[1595] Pedro Lopes and Jasmine Lu. Sustainability and computing section: Full stack recycling approaches for computing devices. *Communications of the ACM*, 68(7):86–91, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Xie:2025:SCS

[1596] Yiqun Xie, Xiaowei Jia, and Runlong Yu. Sustainability and computing section: Environmental computing as a branch of science. *Communications of the ACM*, 68(7):92–94, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Macedo:2025:SCS

[1597] Raimundo J. de Araújo Macêdo, Marcelo Pias, Esteban Clua, Marilton de Aguiar, Pedro R. Andrade, Alirio de Sá, Eulanda dos Santos, José Campos dos Santos, and Lúbia Vinhas. Sustainability and computing section: a Brazilian perspective on computing for the planet's sustainability. *Communications of the ACM*, 68(7):96–101, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Herbst:2025:SCS

[1598] Nikolas Herbst, Mareike Kortmann, Niklas Jaggy, Frank Thonfeld, Cristina L. Abad, Claudia Kuenzer, Jörg Müller, and Samuel Kounev. Sustainability and computing section: Continuous Earth observation of forest dynamics and biodiversity. *Communications of the ACM*, 68(7):102–107, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Davies:2025:RAD

[1599] Michael Davies and Karthikeyan Sankaralingam. Research and advances: Defying Moore: Envisioning the economics of a semiconductor revolution through 12nm specialization. *Communications of the ACM*, 68(7):108–119, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Dimoulas:2025:RAR

[1600] Christos Dimoulas and Matthias Felleisen. Research and advances: The rational programmer: Investigating programming language pragmatics. *Communications of the ACM*, 68(7):120–130, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shasha:2025:LBEb

[1601] Dennis Shasha. Last byte: Electoral trickery. *Communications of the ACM*, 68(7):132–ff, July 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cerf:2025:CN

[1602] Vinton G. Cerf. Cerf's up: On notifications. *Communications of the ACM*, 68(8):5, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Geerts:2025:CPC

[1603] David Geerts. Career paths in computing: The transformative power of inspiration. *Communications of the ACM*, 68(8):7, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wang:2025:BEV

[1604] Fan Wang and Shaoshan Liu. BLOG@CACM: Empowering virtual agents with intelligent systems. *Communications of the ACM*, 68(8):8–9, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Underwood:2025:NPP

[1605] Sarah Underwood. News: The power and potential of zero-knowledge proofs. *Communications of the ACM*, 68(8):11–13, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Marks:2025:NCB

[1606] Paul Marks. News: Clock bait: Why the Moon needs its own time zone. *Communications of the ACM*, 68(8):14–16, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Greengard:2025:NQL

[1607] Samuel Greengard. News: a quantum leap forward. *Communications of the ACM*, 68(8):17–19, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hydari:2025:EBD

[1608] Muhammad Zia Hydari and Rahul Telang. Economic and business dimensions: Balancing secrecy and transparency in bug bounty programs. *Communications of the ACM*, 68(8):20–23, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Neville-Neil:2025:KVC

[1609] George V. Neville-Neil. Kode Vicious: Can't we have nice things? *Communications of the ACM*, 68(8):24–25, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Stahl:2025:CEF

[1610] Bernd Carsten Stahl and Susan Winter. Computing ethics: The future of professional ethics in computing. *Communications of the ACM*, 68(8):26–28, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Schneier:2025:OAT

[1611] Bruce Schneier. Opinion: AI and trust. *Communications of the ACM*, 68(8):29–33, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Alashwali:2025:OTT

[1612] Eman Alashwali. Opinion: Two types of data-privacy controls. *Communications of the ACM*, 68(8):34–35, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Saetra:2025:RAPb

[1613] Henrik Skaug Sætra. Research and advances: To post or not to post: AI ethics in the age of Big Tech. *Communications of the ACM*, 68(8):38–49, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Basin:2025:RAI

[1614] David Basin, Nate Foster, Kenneth L. McMillan, Kedar S. Namjoshi, Cristina Nita-Rotaru, Jonathan M. Smith, Pamela Zave, and Lenore D. Zuck. Research and advances: It takes a village: Bridging the gaps between current and formal specifications for protocols. *Communications of the ACM*, 68(8):50–61, August 2025. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Guo:2025:RAU

[1615] Hui Guo, Nirav Ajmeri, Saikath Bhattacharya, Munindar P. Singh, and Vaibhav Garg. Research and advances: Understanding mobile app reviews to guide misuse audits. *Communications of the ACM*, 68(8):62–71, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Fabiano:2025:RAT

[1616] Francesco Fabiano, Marianna B. Ganapini, Andrea Loreggia, Nicholas Mattei, Keerthiram Murugesan, Vishal Pallagani, Francesca Rossi, Biplav Srivastava, and K. Brent Venable. Research and advances: Thinking fast and slow in human and machine intelligence. *Communications of the ACM*, 68(8):72–79, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Saroiu:2025:RHD

[1617] Stefan Saroiu. Research highlights: Defending data from SRAM-based attacks. *Communications of the ACM*, 68(8):81, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Mahmod:2025:RHS

[1618] Jubayer Mahmod and Matthew Hicks. Research highlights: SRAM has no chill: Exploiting power domain separation to steal on-chip secrets. *Communications of the ACM*, 68(8):82–90, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Feldman:2025:LBO

[1619] Philip Feldman. Last byte: Organizational lobotomy. *Communications of the ACM*, 68(8):92–ff, August 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Vardi:2025:VIWb

[1620] Moshe Y. Vardi. Vardi's insights: Will AI destroy the World Wide Web? *Communications of the ACM*, 68(9):5, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Menzies:2025:LEC

[1621] Tim Menzies. Letter to the Editor: The case for compact AI. *Communications of the ACM*, 68(9):6–7, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kumar:2025:BGA

[1622] Santosh Kumar. BLOG@CACM: a generative AI-Powered digital twin for adaptive NASH care. *Communications of the ACM*, 68(9):8–9, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Banville:2025:BDX

[1623] Morgan C. Banville. BLOG@CACM: Deleting X: Why SIGDOC left the platform. *Communications of the ACM*, 68(9):9–10, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Klarreich:2025:NAB

[1624] Erica Klarreich. News: an algorithm for a better bookshelf. *Communications of the ACM*, 68(9):11–13, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ceurstemont:2025:NAS

[1625] Sandrine Ceurstemont. News: AI for senior citizens. *Communications of the ACM*, 68(9):14–16, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Edwards:2025:NAT

[1626] Chris Edwards. News: AI teams contend with synthetic data's Jekyll/Hyde roles. *Communications of the ACM*, 68 (9):17–19, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Delman:2025:NAP

[1627] Scott Delman, Wendy Hall, and Divesh Srivastava. News: ACM publications finances for 2023 and 2024. *Communications of the ACM*, 68(9): 21–25, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Grimmelmann:2025:LTD

[1628] James Grimmelmann. Law and technology: Deconstructing the Take It Down Act. *Communications of the ACM*, 68(9):28–30, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Denning:2025:PIT

[1629] Peter J. Denning. The profession of IT: Three AI futures. *Communications of the ACM*, 68(9):31–33, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Meneely:2025:OSU

[1630] Andy Meneely and Brandon Keller. Opinion: Stop using vulnerability counts to measure software security. *Communications of the ACM*, 68(9): 34–36, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Natale:2025:OGA

[1631] Simone Natale, Federico Biggio, Payal Arora, John Downey, Riccardo Fassone, Rafael Grohmann, Andrea Guzman, Emily Keightley, Deqiang Ji, Vincent Obia, Aleksandra Przegalinska, Usha Raman, Paola Ricaurte, and Eduardo Villanueva-Mansilla. Opinion: Global AI cultures. *Communications of the ACM*, 68(9):37–40, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Moore:2025:OCR

[1632] Cristopher Moore, Catherine Gill, Nadya Bliss, Kevin Butler, Stephanie Forrest, Dan Lopresti, Mary Lou Maher, Helena Mentis, Shashi Shekhar, Amanda Stent, and Matthew Turk. Opinion: Concerning the responsible use of AI in the U.S. criminal justice system. *Communications of the ACM*, 68(9):41–44, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Salem:2025:PI

[1633] Ahmed Salem, Santiago Zanella-Béguelin, Yonatan Zunger, and Mark Russinovich. The price of intelligence. *Communications of the ACM*, 68(9):46–53, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Spafford:2025:RAG

[1634] Eugene H. Spafford and Richard A. DeMillo. Research and advances: Grand challenges in trustworthy computing at 20: a retrospective look at the Second CRA Grand Challenges Conference. *Communications of the ACM*, 68 (9):54–61, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cunningham:2025:RAA

[1635] Pádraig Cunningham and Barry Smyth. Research and advances: an analysis of the impact of gold open access publications in computer science. *Communications of the ACM*, 68 (9):62–69, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ahvanooey:2025:RAS

[1636] Milad Taleby Ahvanooey, Wojciech Mazurczyk, and Dongwon Lee. Research and advances: Socioeconomic threats of deepfakes and the role of cyber-wellness education in defense. *Communications of the ACM*, 68(9): 70–79, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bichler:2025:RAD

[1637] Martin Bichler and David C. Parkes. Research and advances: Differentiable economics: Strategic behavior, mechanisms, and machine learning. *Communications of the ACM*, 68(9):80–88, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ganesan:2025:RHN

[1638] Deepak Ganesan. Research highlights: NeuroRadar: Can radar systems be reimagined using computational principles? *Communications of the ACM*, 68(9):90, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Qian:2025:RHN

[1639] Kun Qian, Timothy Woodford, Xinyu Zhang, and Kai Zheng. Research highlights: NeuroRadar: a neuromorphic radar sensor for low-power IoT systems. *Communications of the ACM*, 68 (9):91–100, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ranganathan:2025:RHM

[1640] Parthasarathy Ranganathan. Research highlights: Memory efficiency via offloading in warehouse-scale datacenters. *Communications of the ACM*, 68(9):101, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Weiner:2025:RHT

[1641] Johannes Weiner, Niket Agarwal, Dan Schatzberg, Leon Yang, Hao Wang, Blaise Sanouillet, Bikash Sharma, Tejun Heo, Mayank Jain, Chunqiang Tang, and Dimitrios Skarlatos. Research highlights: TMO: Transparent memory offloading in datacenters. *Communications of the ACM*, 68(9): 102–110, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hoffmann:2025:LBE

[1642] Leah Hoffmann. Last byte: Embracing her critics to refine VoIP. *Communications of the ACM*, 68(9): 112–ff, September 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cerf:2025:CDU

[1643] Vinton G. Cerf. Cerf's up: On digital ubiquity. *Communications of the ACM*, 68(10):5, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Aoun:2025:BHG

[1644] Mario Antoine Aoun. BLOG@CACM: How generative models are ruining themselves. *Communications of the ACM*, 68(10):6–7, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Edwards:2025:NLM

[1645] Chris Edwards. News: Language models wrestle with gaps in understanding. *Communications of the ACM*, 68(10):9–11, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Savage:2025:NCAa

[1646] Neil Savage. News: Can AI expand the human mind? *Communications of the ACM*, 68(10):12–14, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kugler:2025:NHA

[1647] Logan Kugler. News: How AI could supercharge AR and VR. *Communications of the ACM*, 68(10):15–17, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cusumano:2025:TSM

[1648] Michael A. Cusumano. Technology strategy and management: Fintech innovation in China. *Communications of the ACM*, 68(10):18–21, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Neville-Neil:2025:KVS

[1649] George V. Neville-Neil. Kode Vicious: In search of quietude. *Communications of the ACM*, 68(10):22–23, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Luo:2025:OTU

[1650] Chu Luo and Vassilis Kostakos. Opinion: Toward ubiquitous operating systems: Lessons from the field. *Communications of the ACM*, 68(10):24–27, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Rodchenko:2025:OEA

[1651] Tanya Rodchenko, Natasha Noy, and Nino Scherrer. Opinion: Not every AI problem is a data problem. *Communications of the ACM*, 68(10):28–31, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Gray:2025:OCM

[1652] Mary L. Gray, Rida Qadri, and Michael Madaio. Opinion: Confusing the map for the territory. *Communications of the ACM*, 68(10):32–34, October 2025.

CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ouzzani:2025:AWS

[1653] Mourad Ouzzani, Moustafa Youssef, and Sherif Aly. Arab World special section: Computing in the Arab World: Innovations, challenges, and advances amid a rich mosaic of scientific activity. *Communications of the ACM*, 68 (10):36–38, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Belmekki:2025:AWS

[1654] Baha Eddine Youcef Belmekki and Mohamed-Slim Alouini. Arab World special section: Hot topics: Aerial solutions for supporting large-scale events: a case study of the Hajj pilgrimage. *Communications of the ACM*, 68 (10):40–41, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Alshakhsi:2025:AWS

[1655] Sameha Alshakhsi, Sanaa Al-Harahsheh, Diana Alsayed Hassan, Dena Al-Thani, and Raian Ali. Arab World special section: Hot topics: Digital addiction among Arab families: Status, contributing factors, responsibilities, and solutions. *Communications of the ACM*, 68(10):42–44, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ali:2025:AWS

[1656] Ahmed Ali, Ahmed Abdelali, Mohamed Elfeky, Kareem Darwish, and Shammur Chowdhury. Arab World special section: Hot topics: Unlocking the potential of Arabic voice-generation technologies. *Communications of the ACM*, 68(10):45–47, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Abouzied:2025:AWS

[1657] Azza Abouzied, Firoj Alam, Raian Ali, and Paolo Papotti. Arab World special section: Big trends: Combating misinformation in the Arab World: Challenges and opportunities. *Communications of the ACM*, 68(10):48–53, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Al-Khalifa:2025:AWS

[1658] Shahad Al-Khalifa, Nadir Durrani, Hend Al-Khalifa, and Firoj Alam. Arab World special section: Big trends: The landscape of Arabic large language models. *Communications of the ACM*, 68(10):54–61, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Innan:2025:AWS

[1659] Nouhaila Innan, Mohamed Bennai, Muhammad Shafique, and Moustafa Youssef. Arab World special section: Big trends: Quantum computing research in the Arab World. *Communications of the ACM*, 68(10):62–65, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Al-Emadi:2025:AWS

[1660] Noora Al-Emadi, Muhammad Imran, Yin Yang, Ingmar Weber, Fabjan Lashi, Gaia Rigodanza, Ivana Hajzmanová, and Ferda Ofli. Arab

World special section: Big trends: AI-driven disaster response and displacement monitoring. *Communications of the ACM*, 68(10):66–71, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Abdennadher:2025:AWS

[1661] Slim Abdennadher, Marc Dacier, Aya Muhanad, Raian Ali, Roberto Di Pietro, and Alia El Bolock. Arab World special section: Big trends: Cybersecurity in the Arab World: Technological and socio-political dimensions. *Communications of the ACM*, 68(10):72–77, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shihada:2025:AWS

[1662] Basem Shihada and Mohamed Abdallah. Arab World special section: Big trends: Artificial intelligence in networking research in the Arab World. *Communications of the ACM*, 68(10):78–82, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Abdelsalam:2025:AWS

[1663] Mohamed Abdelsalam, Mohamed Ellethy, Charalambos Konstantinou, Shehab Ahmed, Amr Mohamed, Neven Elsayed, and Tamer ElBatt. Arab World special section: Big trends: Digital twins: Initiatives, technologies, and use cases in the Arab World. *Communications of the ACM*, 68(10):83–87, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cox:2025:FYO

[1664] Russ Cox. Fifty years of open source software supply-chain security. *Communications of the ACM*, 68(10):88–95, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bittman:2025:PA

[1665] Daniel Bittman and Peter Alvaro. The point is addressing. *Communications of the ACM*, 68(10):96–99, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Edwards:2025:RAG

[1666] Abigail Edwards, Sophia Barkoff, Kathryn Kelly, and Di Cooke. Research and advances: As good as a coin toss: Human detection of AI-generated content. *Communications of the ACM*, 68 (10):100–109, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Zhu:2025:RHW

[1667] Timothy Zhu. Research highlights: Where is my data? *Communications of the ACM*, 68(10):112, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shi:2025:RHS

[1668] Shouqian Shi, Minghao Xie, Heiner Litz, Chen Qian, and Yi Liu. Research highlights: Smash: Flexible, fast, and resource-efficient placement and lookup of distributed storage. *Communications of the ACM*, 68(10):113–121, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shasha:2025:LBS

[1669] Dennis Shasha. Last byte: Selective sponges. *Communications of the ACM*, 68(10):124–ff, October 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Vardi:2025:VIC

[1670] Moshe Vardi. Vardi's insights: Computing is indeed a discipline in crisis. *Communications of the ACM*, 68(11):5, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Larus:2025:ELC

[1671] James Larus and Terence Kelly. Editor's letter: Communications practice section welcomes submissions. *Communications of the ACM*, 68(11):7, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kamata-Itakura:2025:CPC

[1672] Mayumi Kamata-Itakura. Career paths in computing: Shedding labels, sidestepping limitations, and self-fulfillment. *Communications of the ACM*, 68(11):9, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Williams:2025:BAS

[1673] Alex Williams. BLOG@CACM: Acting in self-defense. *Communications of the ACM*, 68(11):10–11, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Savage:2025:NCAb

[1674] Neil Savage. News: Can AI talk to the animals? *Communications of the ACM*, 68(11):13–15, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Shein:2025:NCD

[1675] Esther Shein. News: Creating digital replicas of history with AI. *Communications of the ACM*, 68(11):18, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Greengard:2025:NSB

[1676] Samuel Greengard. News: In search of better search. *Communications of the ACM*, 68(11):19–21, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wyrich:2025:OSS

[1677] Marvin Wyrich, Christof Tinnes, Sebastian Baltes, and Sven Apel. Opinion: The silent scientist: When software research fails to reach its audience. *Communications of the ACM*, 68 (11):24–27, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Samuelson:2025:LSD

[1678] Pamela Samuelson. Legally speaking: Does using in-copyright works as training data infringe? *Communications of the ACM*, 68(11):28–30, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sahlgren:2025:OCL

[1679] Magnus Sahlgren and Jussi Karlgren. Opinion: Culture, language, and generative language models. *Communications of the ACM*, 68(11):31–33, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Koch:2025:EBD

[1680] Philipp Koch, Eva Coll-Martínez, Viktor Stojkoski, and César A. Hidalgo. Economic and business dimensions: Trading bits for atoms: How digital products are reshaping the global economy. *Communications of the ACM*, 68 (11):34–36, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Gori:2025:ORA

[1681] Marco Gori. Opinion: Reinventing AI: Is it the time for a new paradigm? *Communications of the ACM*, 68(11):37–40, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Doctorow:2025:OTW

[1682] Cory Doctorow. Opinion: Tech workers versus enshittification. *Communications of the ACM*, 68(11):41–42, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ehrenberg:2025:WWG

[1683] Daniel Ehrenberg. When is WebAssembly going to get DOM support? *Communications of the ACM*, 68 (11):44–49, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wingo:2025:WYW

[1684] Andy Wingo. WebAssembly: Yes, but for what? *Communications of the ACM*, 68(11):50–54, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hong:2025:RAA

[1685] Jaemin Hong and Sukyoung Ryu. Research and advances: Automatically translating C to Rust. *Communications of the ACM*, 68(11):58–65, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bronk:2025:RAI

[1686] Chris Bronk. Research and advances: Information power! *Communications of the ACM*, 68(11):66–71, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ancis:2025:RAC

[1687] Julie R. Ancis. Research and advances: The cyberpsychology influence on modern computing. *Communications of the ACM*, 68(11):72–79, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Konighofer:2025:RAS

[1688] Bettina Könighofer, Roderick Bloem, Nils Jansen, Sebastian Junges, and Stefan Pranger. Research and advances: Shields for safe reinforcement learning. *Communications of the ACM*, 68 (11):80–90, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cristofaro:2025:RHC

[1689] Emiliano De Cristofaro. Research highlights: Cryptocurrency browser-extension security: a wake-up call and a way forward. *Communications of the ACM*, 68(11):92, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wang:2025:RHC

[1690] Guangdong Bai, Kailong Wang, Yuxi Ling, Yanjun Zhang, Zhou Yu, Haoyu Wang, Beng Chin Ooi, and Jin Song Dong. Research highlights: Characterizing cryptocurrency-themed malicious browser extensions. *Communications of the ACM*, 68(11):93–101, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sadek:2025:LBM

[1691] Malak Sadek. Last byte: The memory exchange. *Communications of the ACM*, 68(11):104–ff, November 2025. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).