A Complete Bibliography of the *ACM Transactions on Computing Education (TOCE)*

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Title word cross-reference

\[ \times [\text{GML}^{+}23]. \]

1 [LRS21, Zin15].  
12 [BBSPK22, GES14, GYSH19, HAGM14, HAG15b, JK20, OWK21, TM14, TSAA\(^{+}23\)].  
16-18 [All23].  
19 [MSV\(^{+}23\)].  

2 [RSL22].  

6 [IKWR22].  

7th [SA20].  

= [GML\(^{+}23\)].  

Achievement [AANK14, BJS21, CHA17, Zin15]. ACM [Ko22a, TM09, CB19]. Across [AM21].  
Action [IT17, LMGVS\(^{+}16\)]. Active [VI13, IT13]. Activities [MDS16, MJC23, RKM20]. Activity [LC21].  
Adaptive [VMAG22]. Adding [BLNC09, DJHGI19]. Address [RvJP20].  
Adoption [EHBA\(^{+}23\)]. Affect [TAL17].
RVAN15, RSPB17, RJJ10, RWK+15, REB23, RHSS20, RV09, RCS11, Ryo19, SNG+22, She13, SPRI12, SA20, TK16, TB16, UR17, VCMV23, VFFT16, VSK2, Wag16, WK10, WW17, WDK20, YB19, YBV2, VYQ+10, ZNF+20, ZCJR20, ZJWF11. computer [AGEL13, Gri13, KG22, LGP13, Zin15].


Computing [AGEL13, Gri13, KG22, LGP13, Zin15].


Consortium [BCD10]. construction [NCLN13]. Constructor [MISH10].

Content [BSS20, EHBA+23, VMAG22, WCVP20, YB19]. Context [GEME14, LZR021, ORS16, Rob22].

Contingency [AHL17]. Continue [Ros23]. Continues [Fun17]. Continuing [All23].

Continuum [CB19]. Contributions [DM23, HCAT23]. Controlled [Bol22, DSUP20, DSU20, MC19, WX18].


Core [INA18, ZPB13]. Correctness [DHH+15]. Counter [EBC+21].

Counter-hegemonic [EBC+21]. Countries [GES14, TSAA+23]. Course [AH17, BHHMG21, BTF+19, BCZ19, CKSS21, CDCLK17, EK17, IT17, KKLL16, LKKH18, MTGM21, NKG11, PDF15, RB22, Rit09, She13, SH10, WX18, Wan11, d’A10].

Courses [ASG19, CHA17, CDK+14, Ip12, MFCGL19, Mit14, OHR22, Rit09, RB22, SNS+19, SNG+22, SH10, WX18, TP21, TK16, UR17, VMAG22, HAA13, LGP13].


CS [Bhu22, PPSS22, GML+23, HM21, KV15, LBT20, MBJ+23, MSP21, PLB+12, RVAN15, RTE21, RB22, SWL+22, TABA12, TW18, VB+20, VS22].

CS1 [BC13, ORS16, Sha22]. CS2 [TPQE18].

CS4HS [RSPB17]. CSF [HBVTN21].

CSLE [ALP12]. CSS [PDF15]. CSTutor [BL14]. CUDA [DSU20]. Current [ALHR17, CAL15, RB21].


Cybersecurity [BF23, JNA18, LRVW14, PHP+22]. Cyprus [CJS+17].

Dance [DBMB22]. Darmstadt [RVAN15].

Data [AH17, BA17, BL14, CHU+09].
LSSM19, MHP20, MAHC+22, MW22.

Gains [PGJS17]. Game
[DCW19, HHM19, LK19, McG12a, RWK+15, Rit09, TAL17, VGRM19, VGM+23, Wan11].
Game-Based [HHM19, TAL17]. Games
[Ip12, WDC15, WDCT20]. Gamification
[AZK+20, MFCLG19, MTGM21, RPT+22].
Gap [Akd23, LRWV14]. Gaps
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[BVNN22, CHP+18, Har21, KFME11, KKNL21, RCS11, Wag16]. Generalized
[BKZL23]. Generation
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Georgia [GEME14]. Germany [KMB+15].
Get [MS19]. Getting [OFC17]. Girl
[OFC17]. Girls [ETN+21]. GitHub
[HCAT23]. Global
[BTF+19, CB19, FDW19, IDC+19, SGHZS19, VGRM19, VGM+23]. Go
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[CHP+18, MS11, SPc19, Zin15]. Google
[RSPB17]. Governance [GND19]. GPU
[DSU20]. Grade [KKNL21, SA20, THW18].
Grades [Zin15]. Grading [Avd21].
Graduate [KGB22]. Graduates [SWL+22].
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Greater [GML+23]. Greedy [VI13]. Greek
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[AvdM21, Ric09]. Groups [RBSS11]. GSD
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[HM19]. Guest [BB10]. Guide [SH18a].
Guided [NGK11]. Guidelines [TP23].

H [BMB+18]. H/FOSS [BMB+18].
Hackathons [Har21]. Happens [RMM21].
Hard [SPC19, WBK+22]. Hardas
[DBMP22]. Hardware [BC12, LRVW14].
Hegemonic [EBC+21]. help [HS13].
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[BSS20, CKSS21, DLM11, KLS+14, MFM+16, MSV+23, SHI01, Par23, TPQE18, WW17, WDK20, ZNF+20, ZCJR20, ZJWF11, AEG13]. High-Level
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Hispanic [GHT+11]. Hispanic-Serving
[GHT+11]. Hispanics [GHT+11].
Historical [BDDGT14, LZRO21]. History
[BCD10]. Holistic [NGK11]. Home
[BBF21]. Hours [HRRC21]. HTML
[PDF15]. Human [KG22, RC13].
human-centered [RC13].
Human-computer [KG22]. Hybrid
[LSSM19]. Hypertextbook [RR09]. Hypothesis
[GBB+17]. Hypothesis-Driven [GBB+17].
i*CATCh [NCLN13]. ICT [TSK12]. IDE
[HOC17, OHR22]. IDE-Based [HOC17].
Ideas [SNOT21]. Ideation [LF22, TP21].
Identification [RJJ10]. Identify [LRJ14].
Identifying
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Identity [DBMP22, GbGG+23, JMN+22, LRH+22, MHP20, RTE21]. IEEE [DTT16].
Impact [AZK+20, BCZ19, BJS21, CDCLK17, KG22, KA16, LK19, LY21, MJB+23, MDS16, MSV+23, PS21, PLB+12].
Impacts [MR22]. Impairments
[LR11, vdMVH23]. Implement [HAG15].
Implementation [LGMS+16, BC13].
Implementing [AGEL13, MMRF20].
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Improve [LFU23]. Improved
[OHR22, THW18]. Improving [IT17].
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[VMFG17]. Incarceration [SAYC+21].
Including [PLB+12]. Inclusion
[IKWR22, LLF22]. Inclusive [GML+23].
Income [MSV+23]. Incorporating
[SDBJ19]. Increase [CMSP+19]. Increases
[RKM20]. Incremental [RKM20].
Incubators [LC21]. Indian [RVAN15].
Individual [HCAT23]. Industry
[Akd23, Ip12, MAK12, MSP21]. Ineffective
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[DJGIO20]. Influences [McG12b].
Informal
[CMSP+19, GEME14, LC21, SAyC+21].
Informatics [BLM+14, KS14].
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[CMSP+19]. Informing [DMBP22]. Inheritance
[LBK11]. Initial [FU10b]. Initiatives
[PS21]. Injections [TK16]. Insights
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Institutions [CJS+17, GHT+11].
Instruction
[LIG22, MJB+23, MW18, Sh16, LGP13].
Instructional [IKWR22, BC13].
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[REB23]. Instruments [MSK+23].
Insufficient [KV15]. Integrated [RG19].
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[CDK+14, HAA13, SSF+19, TK16].
Integration [BSY+10, KPM18].
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Intent [DBG+23]. Intention [ZD15].
Intentions [DBR+20, SNG+22, TABA12].
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Interactions [MC19]. Interactive
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CMSP+19, DBR+20, MW22, OPC17, Zin15].
Interface [CG19]. Internship [KG22].
Internships [KG22, MSP21]. Intersection
[RHSS20]. Intersectionality [LZRO21].
Intersections [Vog21]. Intervening
[EK17]. Intervention [GEME14, RKM20].
Interventions [LK19, LY21, OHR22].
Learn-to-code

RT15, TB16, ZD15, HS13. Learn-to-code [LC21].

Learned [SWL+22]. Learner [Kie09].

Learning

[AZK+20, AANK14, ALP12, BBG12, BS10, Bol22, BSY+10, CDK+14, CDB+22, CHP+18, DMBP22, DTT16, DJHGI19, Fie19, FU10b, FPSS23, GYSH19, GBB+17, GKL17, HEE+19, HHM19, HOC17, IDC+19, Kie09, KG18, LLKH18, LMGVS+16, LCT+19, LBK11, LIB22, MSK+23, MRG17, MBE+16, MAHC+22, McG12b, MAK12, MS11, MS19, MSBSBA09, O’G12, PCH09, PHRC21, RT15, RG19, RPT+22, RvJP20, RMM21, SSF+19, SSSC18, SF19, SPC19, SS23, TMSA22, TAL17, TB16, TPQE18, VI13, VFFT16, WDC15, YBV23, BC13].

Left [PLB+12].

[PLB+12].

LEGO [SGHZS19].

Lens

[Arm11].

Lessons

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Let [Ros23].

Level

[TPQE18].

Levels [Lar16].

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Libraries

[RLN+22].

Life [BBG12].

Limited

[Rit09, Ros23].

Limits [LFU23].

Lines

[ALHR17].

Linking [OPC17].

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[KKLN21, MW18].

Literal [MS19].

Literature

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Load

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Local [BTF+19].

Logic [HLKZ12].

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[MK19, OPC17, RS14, TM15].

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[Arm11, TM15].

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[LZT+19].

Low-performing

[LZT+19].

Lower

[IIRY17, MSV+23].

Machine

[BLNC09, Fie19, LMGVS+16, LST+19, SSF+19, SF19, SPC19].

Machines

[FU10a, Sor13].

Major

[LRJ14, MDS16, SNG+22, ZJWF11].

Majority

[RBS11].

Majors

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Make

[HM22, MS11].

Making

[CMSP20, RG19].

Maladaptive

[FPSS23].

man

[RMM21].

Manager

[VGM+23].

Managing

[BC+19].

Many

[HAG15b, ZPB13].

many-core

[ZPB13].

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MapReduce

[RRKP13].

Materials

[vdMHVH23].

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[DHH+15].

Matters

[TM10].

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[DSUP20, KKNL21, WDCT20, RRKP13].

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[CHA17].

Measuring

[GBB+17, Lar16, LBT20, WDC15].

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[She13].

Medium-sized

[She13].

Memoriam

[HAG15a].

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[MSH10].

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[Kar09].

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[DCW19, UR17].

Meta-Analysis

[UR17].

Meta-Synthesis

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Metacognition

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Method

[AHL17, V113, VFFT16].

Methodology

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Methods

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Middle-School

[TARA12].

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[SOT21].

Mindset

[KKM20].

Mindsets

[FPSS22].

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[LGGS22].

Misconceptions

[QL17].

Mistakes

[BA17].

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[RMNC10].

Model

[BF23, BBF+21, BCD10, EHBA+23, HOC17, LMGVS+16, RVAN15, RMNC10, Shi16, SSB+23, WDC15, CHM13].

model-driven

[CHM13].

Modeling

[Bol22, LRJ14, Mit14, SSB+23].

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Moderator

[RPT+22].

MOOC

[CHR+18, KV15].

Most

[EK17].

Motivate

[BHHMG21].

Motivated

[ASG19].

Motivation

[MBE+16, McG12b, NGK11].

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Move

[RS14].

Multi

[BMB+18].

Multi-Institutional

[BMB+18].

Multilingual

[JMN+22, Vog21].

Multimodal

[RG19].

Multiple

[ASG19].

multiscope

[NCL13].

Musicians

[Fie19].

Myself

[MRG17].

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operating [ZPB13]. Opportunities [CHH+11, PS21]. Optimization [SSD09]. Orientation [RCS11]. Oriented [AAGH14, AANK14, BS10, KLS+14, KKLL16, KDXB18, RMNCl0, Shi16, Xin15, d’A10, AGEL13]. Other [Fie19, QL17].

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required [IT13]. Research [BVNN22, Bar09, DCW19, DZS22, EHPR+23, GM14, GbGG+23, HSI+19, HB15, HCSAz22, HOC17, IT17, JK20, KFME11, LMGVS+16, MT23, MAK12, PM09, SSSC18, SF19, SS23, TS20, TP23, TM11b, Ten14, TM22].


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Small [BTF+19, RvJP20, She13]. Smarter [GML+23]. Smarterphones [RT15].
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Source-Code [CJS+17, NJK19]. South [CJS+17]. Spanish [VCMV23].
Spanish-language [VCMV23]. Speak [RTE21]. Special [CB19, FU10b, KDM+23,
KG18, LRS21, LV11a, LV11b, MT23, MC15, RB21, RSL21, SF19, BAGM13, Gri13].
Specialized [AJNN20]. specific [MSK+23]. SQL [BSY+10, MFA23, MTGM21, TSV18, TS20].
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[AvdM21, Bar09, BJCS21, BSPPK22, BSS20, CHA17, DSUP20, DJHGI19, FPSS22,
FDW19, GMM17, HLKZ12, JMN+22, KA16, KO22b, LUF23, LLLF22, MPTV16, McG12b,
MDS16, MFA23, MTGM21, PGJS17, PD22, Pet19, PS21, PLB+12, QL17, RP19, RvJP20,
SH18a, SNG+22, TABA12, VFT+20, VFTF16, WX18, WZL+22, YR15, ZD15].
Student-Directedness [BSPPK22].
Students [ASG19, AL22, BHHMG21,
CJS+17, GML+23, GVA22, HM22, HM21, IJR+17, IDC+19, JNA18, KG22, KSCP22,
KPM18, LKT+19, LRT11, MBE+16, MSV+23, MSP21, ORKH09, ORS16, Pet19, RJJ10,
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LSTA22, MAHC+22, MTGM21, Par23, Pet19, RB22, Rit09, RvJP20, SNOT21, TS20,
VS22, WSLR23, YR15, Zin15, BVNN22].
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Subject [Hub12, KS14]. Subjects [GGH+10]. Submission [LFU23]. Success [BSS20, CKBSS21, RPT+22, ZJWF11].
Successes [GES14]. Successful [UFVI09].
Support [ABCD20, BSPPK22, CMSP+19, GBB+17, PCH09, RCS11]. Supported
[CDK+14, CDCLK17, MW18]. Supporting [ALP12, GHT+11]. Supports
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[KM16, LFU23, LC21, PS21, RG19, SKM13, TSK12, UFVI09].

T [REB23]. T-ABC [REB23]. Table
[AHL17]. Tabs [PD22]. Tackle [PD22].
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[BTF+19, CKSS21]. Tale [GES14]. Talking
[HAA13]. Task [MS11]. Tasks
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Taxonomy [DTT16, MBSBA09]. Teacher
[Arm11, BKZL20, EHBA+23, GYSH19, MJB+23, MW18, RSPB17, REB23, VS22, WCPF20, YMZ+14, YB19, ZNF+20, ZCJR20]. Teachers
[All23, BBSPK22, IKWR22, MR22, NCW22, SSSC18, vdMHVH23]. Teaching [ALHR17, AMD22, BC12, Bo22, BLNC09, DHH+15, FEC17, HB15, HM22, IIRY17, IT13, KLM15, KDBX18, KA16, LMGVS+16, LSSM19, MRG17, MAK12, MCK17, Mod21, PO20, RC13, RMM21, SGHZS19, SA20, SPC19, YVQ+10, ZNF+20, AGEL13, CHM13].
teaching-oriented [AGEL13]. Team
[BH16, HCAT23, Lar16]. Teams
[MPTV16, ORKH09, SH18a]. Teamwork
[VFFT16]. TEC [WCPF20]. Technical
[GVA22]. Technique [DSUP20, LZW+19]. techniques
Technology-Related [WDK20]. Teen
[RLN+22]. Teen-Led [RLN+22]. Tensions
[PS21]. teNtative [MM12]. Term
[LK19, LBT20]. Terms [VTB+20]. Test
[BLNC09, VCMV23]. Testing
[CDK+14, CDCLK17, CDB+22]. Text
[WW17]. Text-Based [WW17]. Textbooks
[BNP11]. Textiles [JK20, KLS+14].
Theater [KDBX18]. Theater-Teaching
[KDBX18]. Their
[DJGIO20, KDV22, MBE+16, PG23]. Them
[ASG19, IT13]. Theoretical [Ten14].

Theories
[LMB+22, MSK+23, Rob22, SS23, TP23]. Theory
Think-Aloud [WSLR23]. Thinking
[FU10a, FEC17, GBB+17, KKNL21, KO22b, Lai22, LIG22, PE23, RG19, SNO21, TPQE18, WHS+17, WSP+11, YMZ+14, YR15]. Three [Mit14]. Three-Tier [Mit14].
Threshold [AWW15]. Thrust [DSU20].
Tier [Mit14]. Ties [MW18]. TOCE
[HM16, HM17, Ko22a, TM15]. Together
[OPC17]. Tool
[BL14, DJHGI19, PCH09, SPR12, TSK12]. Toolkit
[MD2]. Tools [BSY+10, CDCLK17, NJK19, TM11a, YVQ+10]. Topic
[MW18]. Topics [EK17]. Towers
[SGHZS19]. Towson [TK16]. Tracing
[PG23]. Tracking [KDBX22]. traditional
[Har21]. Training [ORKH09]. Trajectory
[HM16, HM17, LIG22]. Transactions
[CB19, TM09]. Transfer
[KMW22, LLLH18, LD19].
Transfer-Learning [LLK18].
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[DSUP20, DSU20]. Troublesome [YZC19].
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[BSCH14, CJS+17, Ip12]. UML [Mit14].
Uncover [LLF22]. Uncovering [AWW15].
Undergraduate
[Bar09, CDCLK17, ECF18, KFME11,
REFERENCES

MFR13, McG12a, MDS16, She13, TWH18.
Undergraduates [CGZ+20, RCS11].
Underrepresented [MFM+16].
Understanding [CGZ+20, EHBA+23, FKG17, GGT20, Lar16, LZRO21, MHP20, MJB+23, RG19, RP19, Shi16, SPR12, VTB+20].
Unit [MMFR20].
Universals [GES14, LSHY22, McG12a].
Universal [Bur11].
University [VCMV23, BVNN22].
Unlocking [GK17].
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up-in-the-cloud [ZPB13].
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upper-division [LGP13].
Usability [AAGH14, vdMHVH23].
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Use [ASG19, BWTS+23, LMB+22, LR11, MSK+23, SS23, VMAG22].
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Using [CMSP+19, CDCLK17, DTT16, FEC17, GBB+17, HS13, JK20, Kie09, LMGVS+16, LLF22, LSSM19, MT23, Mit14, RRKP13, TM22, Wan11, DSUP20, RVAN15, RC13].
Utilize [BBSPK22].
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Vision [HB15].
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Visual [BS10, LR11, vdMHVH23].
Visualization [MBSBA09, RV09, RV09, SSD09, SCA+10, SKM13, UFV09, YVQ+10].
Visualization-Based [RV09].
Visualizations [CHU+09].
Visualizing [BL14].
vs [BA17, WX18].
wearable [NCLN13].
Wearables [MCK17].
Web [AWW15, MC15, PDF15, PHRC21, ZD15].

Westphalia [KMB+15].
Where [JK20].
Which [NCW22].
White [VS22].
Who [JK20].
Wide [PS21].
Wild [FKG17].
will [Ros23].
Within [TB16, CJS+17, DMBP22, SSF+19].
Woman [DMBP22, RHSS20].
Women [HM21, KFME11, LC21, LG21, PHRC21, PG23, RTE21, SayC+21, WDK20].
Work [BF23, DMBP22, ORKH09, RP19, SGGHZS19].
Worked [MJC23].
Workload [BBG12].
Workshops [PHRC21].
World [TBP21, BHIMG21].
WReSTT [CDCLK17].
Writing [VMFG17, WSP+11].

year [AL22, CGZ+20, VCMV23].
Young [BCZ19].
Youth [CMSP+19, CMSP20, FKG17, LGGS22, PS21, RG19].

References

Alexandron:2014:SBP


Allinjawi:2014:ADA

Ardimento:2020:RBS


Abuzaghleh:2013:IAH


Ahadi:2017:CTD


Atiq:2022:QSE


Albluwi:2020:PPA

AcHer:2017:TSP


Allison:2023:CCE


Apiola:2012:CSL


Arawjo:2021:ICE


Amy:2021:ICE

REFERENCES

URL https://dl.acm.org/ft_gateway.cfm?id=3243137.


REFERENCES


REFERENCES


[Bol22] Narasimha Bolloju. Teaching and learning domain model-


Monica Babes-Vroman, Thuy-tien N. Nguyen, and Thu D. Nguyen. Gender diversity in computer science at a large

**Braught:2011:CPP**

**Brown:2023:NUJ**

**Choi:2015:CEK**

**Clear:2019:GSE**

**Clarke:2022:CLE**

**Clarke:2017:IUT**
Peter J. Clarke, Debra L. Davis, Raymond Chang-Lau, and Tariq M. King. Impact of using tools in an undergraduate software testing course supported by WReSTT. *ACM Transactions on Computing Education*, 17(4):18:1–18:??, September 2017. CODEN ??? ISSN 1946-6226.

**Clarke:2014:ITS**
Peter J. Clarke, Debra Davis, Tariq M. King, Jairo Pava, and


REFERENCES


dAmore:2010:SOV


Dahlberg:2011:SAV


Duran:2023:PFR


Dou:2020:ECS


Drachova:2015:TMR


Dominguez:2020:FCA

REFERENCES

Dominguez:2019:EAN

Doerschuk:2011:IHS

Draper:2023:DTC

Desportes:2022:GHW

Duran:2021:RPB

Daleiden:2020:GPP

Daleiden:2020:ARC
Patrick Daleiden, Andreas Stefik, P. Merlin Uesbeck, and Jan Pedersen. Analysis of a randomized controlled trial of student performance in parallel programming using a new

**Dolog:2016:APB**


**Duran:2022:CLT**


**Eglash:2021:CHC**


**El-Hamamsy:2021:CHC**


**El-Hamamsy:2023:RPP**

REFERENCES

Enstrom:2017:IIM


Eglash:2011:FSA


Exter:2012:EEP


Erete:2021:ATJ


Frezza:2019:ASI


Fronza:2017:TCT


Fiebrink:2019:MLE


[FU10a] Sally Fincher and Ian Utting. Machines for thinking.


REFERENCES


REFERENCES


14:1–14:??, August 2013. CODEN ???. ISSN 1946-6226.


[Hubwieser:2015:MRM]


[Hassner:2015:TCV]


[Haldeman:2021:CFF]


[Hundhausen:2023:CGC]

Hamouda:2019:RIT


Hosseini:2019:LCP


Hedayati-Mehdiabadi:2022:HDC


Hjelsvold:2019:EEG


Hsu:2021:CBS


Herman:2012:DWW

<table>
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<th>Title</th>
<th>Journal</th>
<th>Year</th>
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REFERENCES

Israel:2022:EIT

Indriasari:2020:RPC

Ip:2012:FNI

Isomottonen:2013:TPE

Isomottonen:2017:FBA

Jayathirtha:2020:ISS

Jacob:2022:EWW
Jones:2018:CCD


Johnson:2019:DEA


Kunkle:2016:IDT


Karavirta:2009:SMH


Ko:2023:DAS


Kather:2022:TTT


Krusche:2018:STT


Kim:2011:EWC


Korhonen:2018:SSI


Kang:2022:IUI


Kiesmuller:2009:DLP


Keuning:2019:SLR


Kaila:2016:ROO


Kim:2021:ECT


Koulouri:2015:TIP

REFERENCES


Khenner:2014:SSI

Karnalim:2022:ESA

Kurhila:2015:PMA

Kemp:2020:FPP

Lai:2022:BPC

Largent:2016:MUT

Liberman:2011:DLI

Lawlor:2020:CMS
Grace Lawlor, Philip Byrne, and Brendan Tangney. “Code-Plus” — measuring short-term efficacy in a non-formal,
REFERENCES


[Luo2022:ECT] Feiya Luo, Maya Israel, and Brian Gane. Elementary computational thinking instruction and assessment: a learning

**Lakanen:2019:IPC**


**Lee:2022:UDR**


**Lagus:2018:TLM**


**Loksa:2022:MSR**


**Larraza-Mendiluze:2016:URB**


**Lukkarinen:2021:EDP**

REFERENCES


Ludi:2011:URP


Lunn:2022:HDE


Luse:2014:USE


Lachney:2021:ISS


Lukowiak:2014:CEB


Lunn:2022:FPF


Luburić:2019:FTS

REFERENCES


[MAHC+22] Nora McDonald, Adegboyega Akinsiku, Jonathan Hunter-Cevera, Maria Sanchez, Kerrie Kephart, Mark Berczynski, and Helena M. Mentis. Responsible computing: a lon-
McGill:2012:TRI


Malmi:2023:RT


McCartney:2016:WCS


McGill:2012:CPP


Myller:2009:EET


Miller:2015:ISI


Merkouris:2019:PEI

McGill:2012:LPP

Merkouriis:2017:TPS

McGill:2016:USP

Miedema:2023:EPS

Marín:2019:EIB

Magerko:2016:ESB

Magana:2013:IDB

Mahadeo:2020:DCI
Jonathan Mahadeo, Zahra Hazari, and Geoff Potvin. De-
REFERENCES


Mitra:2014:UUM


Mansour:2023:UIP


Muldner:2023:RWE


Margulieux:2020:EIS


Modesti:2021:SBA

Paolo Modesti. A script-based approach for teaching and as-


Malmi:2023:DUD


Minnes:2021:WDC


McGill:2023:PPC


Malmi:2023:ESS


Morales-Trujillo:2021:GSE


Mazur:2018:FTF


Michaelis:2022:IDT


**Ngai:2013:DIM**


**Neutens:2022:ACW**


**Nikula:2011:MGH**


**Outlay:2017:GIT**

REFERENCES


Ocker:2009:TSW


Ott:2016:TPE


Oleson:2021:RDK


Parker:2023:BSO


Paterson:2009:PPS


Pereira:2022:SKT


Park:2015:AHC


Pelánek:2023:LCT

[PE23] Radek Pelánek and Tomás Effenberger. The landscape of computational thinking problems for practice and assessment. ACM Transactions on...
REFERENCES


Peters:2019:SEP


Perez:2023:TPB


Pappas:2017:ASB


Poulson:2022:PEC


Pena:2021:AHL


Poor:2012:NUL


[QBSS11] Penny Rheingans, Anne Brodsky, Jill Scheibler, and Anne
REFERENCES


**Renaud:2013:THC**


**Rosson:2011:OUT**


**Ronan:2023:TAB**


**Richard:2019:DPF**


**Ross:2020:IBB**


**Richards:2009:DPB**


**Ritzhaupt:2009:CGD**

Albert D. Ritzhaupt. Creating a game development course
REFERENCES


[Ros23] Monique S. Ross. Let’s have that conversation: How limited epistemological beliefs exacerbates inequities and will continue to be a barrier to broadening participation. *ACM Transactions on Computing Edu-
Rucker:2019:HES

Rodrigues:2022:TLP

Ravitz:2017:ELE

Ravitz:2017:ELE

Ravitz:2017:ELE
REFERENCES


REFERENCES

Statter:2020:TAC


Seo:2021:ITE


Steghofer:2018:IES


Shaffer:2010:AVS


Sanchez:2019:ICP


Shapiro:2019:ISS


Sablis:2019:BLT

[SGHZ19] Aivars Sablis, Javier Gonzalez-Huerta, Ehsan Zabardast, and


Linda J. Sax, Kaitlin N. S. Newhouse, Joanna Goode, Tomoko M. Nakajima, Max Skorodinsky, and Michelle Sendowski. Can computing be diversified on “principles” alone? Exploring the role of


Schaeckeler:2009:COP


Saltz:2019:IEW


Sentance:2018:CBR


Stepanova:2022:HCG

Anna Stepanova, Alexis Weaver, Joanna Lahey, Gerianne Alexander, and Tracy Hammond.


Taub:2012:CUM

Rivka Taub, Michal Armoni, and Mordechai Ben-Ari. CS unplugged and middle-school students’ views, attitudes, and intentions regarding CS. *ACM Transactions on Computing Education*, 12(2):8:1–8:??, April 2012. CODEN ???. ISSN 1946-6226.

Theodoropoulos:2017:HDD


Thota:2016:LCS

REFERENCES


Josh Tenenberg and Robert McCartney. Editorial: Computational tools for computing


[Tenenberg:2011:EEP]


[Tenenberg:2014:ECE]


[Tenenberg:2015:LBL]


[Tenenberg:2022:ECU]


[Tena-Meza:2022:CPL]


[Tedre:2023:GTD]


[Turner:2018:PR]

[TS20] Toni Taipalus and Ville Seppänen. SQL education: a systematic mapping study and future re-

Tshukudu:2023:IKC


Talon:2012:DCI


Taipalus:2018:ECS


Tomkin:2018:IGP


Utting:2010:AGS


Urquiza-Fuentes:2009:SSE


Umapathy:2017:MAP


Boban Vesin, Katerina Mangaroska, Kamil Akhuseyinoglu, and Michail Giannakos. Adaptive assessment and content recommendation in online programming courses: On the use
REFERENCES


[Wan11] Alf Inge Wang. Extensive evaluation of using a game project in a software architec-
REFERENCES


REFERENCES


REFERENCES


[YVQ+10] Xiaohong Yuan, Percy Vega, Yaseen Qadah, Ricky Archer, Huiming Yu, and Jinsheng Xu. Visualization tools for teaching computer security. *ACM Transactions on Computing Educa- 


REFERENCES

Zingaro:2015:EIG


Zimmerman:2011:WLH


Zhou:2020:HST


Ziwisky:2013:EEO