

Michael E. Caspersen

22nd November 1960



Curriculum Vitae

1st May 2022

Michael E. Caspersen is Managing Director of It-vest – networking universities and Honorary Professor at Department of Computer Science, Aarhus University. Currently, he also serves as special adviser on digital education and skills to Executive Vice President of the European Commission, Margrethe Vestager.

He is founder of Center for Computational Thinking at Aarhus University and was Associate Professor in Programming and Programming Didactics at Department of Computer Science at Aarhus University (2008-2016). He is qualified as full professor at University of Copenhagen (2011) and Aarhus University (2015).

Michael has previously held positions as director of Centre for Science Education (2009-2015), director of graduate engineering studies (2008-2009) at the Faculty of Science, and director of It-vest at Aarhus University (2002-2008).

He holds a PhD in computer science from Aarhus University; his research interests are computing education, programming didactics, programming methodology, and object-oriented programming.

Michael has published 64 papers on computer science education and is co-author of a two-volume textbook on programming and co-editor of "Reflections on the Teaching of Programming" published by Springer-Verlag, 2008 —a novel and innovative collection of contributions that address perspectives, research, and experience on programming education.

He has chaired ten international conferences on computing education, served on more than 40 program committees, and has been member of the editorial board of the international research journal Computer Science Education for twelve years.

Michael is recognised as a Distinguished Member of ACM, the world's largest educational and scientific computing society and a Fellow of the Danish Academy of Technical Sciences.

He is member of the Board of Informatics Europe, co-founder and member of the steering committee of the coalition Informatics for All, and he was co-chair of the Committee on European Computing Education established jointly by ACM Europe and Informatics Europe.

Since 2008, Michael has been heavily involved in development of the new informatics subject for Danish high school (curriculum development and teacher training).

In 2017, by personal invitation from the Minister of Education, he was chairman of the group developing a new optional informatics subject for lower secondary school in Denmark.

In 2018, by personal invitation from the Minister of Education, he was co-chair of the expert group developing a new informatics subject for primary and lower secondary school in Denmark (grade 1 through 9).

He is member of the Danish Academy of Technical Sciences (ATV); since 2018, he is member of ATV's Digital Council, and he is member of the Steering Committee for Science & Engineering in Education

Since 2020, Michael is chairing the European Informatics Competence Framework Committee established by the Informatics for All coalition.

Personal information

Born 22nd November 1960, Svendborg, Denmark. Danish citizen. Civil status: married to Susanne (1984); two children: Christina (1985) and Christopher (1989).

Languages: fluent in Danish and English, working knowledge of German.

Contact information

Working address: It-vest – networking universities (It-vest – samarbejdende universiteter)

Åbogade 15, DK-8200 Aarhus N, Denmark

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Web: www.cs.au.dk/~mec/

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Career

2022-2023	Special adviser on digital education and skills to Executive Vice President of the European Commission, Margrethe Vestager
2018-	Honorary Professor, Department of Computer Science, Aarhus University
2017-	Director of It-vest – networking universities
2016-2017	Head of Development, It-vest – networking universities
2015	Qualified as Professor, Department of Computer Science, Aarhus University
2011	Qualified as Professor, Faculty of Science, University of Copenhagen
2008-	Associate Professor, Department of Computer Science, Aarhus University
2009-2015	Director, Centre for Science Education, Aarhus University
2008-2009	Director of Aarhus Graduate School of Engineering (AGSE) and Head of Graduate Engineering Studies, Faculty of Science, Aarhus University
2002-2008	Director of IT University West, Aarhus University
2001-2007	Chairman for the Committee of the graduate engineering degree in Technical IT, Department of Computer Science, Aarhus University
2000-2002	Research Manager, B&O-lab, Centre for Pervasive Computing, Department of Computer Science, Aarhus University
1999-2002	Coordinator of IT University West, Department of Computer Science, Faculty of Science, Aarhus University
1998-2000	Academic Researcher, Centre for Object Technology (COT), Department of Computer Science, Aarhus University
1997-1998	Project Manager for Centre for Professional Development and Further Education of College Computing Teachers in Denmark (Efteruddannelsescenteret, EUC)
1995-1996	Professional secretary for the evaluation of computer science degrees in Denmark
1986-1998	Lecturer, School of Informatics, Aarhus Business College

Education

2007	PhD, Computer Science, Aarhus University Dissertation: <i>Educating Novices in the Skills of Programming</i> Principal advisor: Ole Lehrmann Madsen, Aarhus University Co-advisor: David Gries, Cornell University
1987	M.Sc. in Computer Science, Aarhus University Dissertation: <i>Distributed Computations: Model and Method</i> Advisor: Erik Meineche Schmidt
1984	B.Sc. in Computer Science and Mathematics, Aarhus University
2004	Course for Department Chairs, University of Southern Denmark
1990	Pedagogical Diploma for College Teachers

Grants and externally funded projects

Grants where I am/was grant recipient and managing principal investigator.

- Center for Computational Thinking (3.4 MM DKK)
 - External (It-vest – Networking Universities): 3.4 MM DKK
- CSE (2.5 MM DKK)
 - External (Aarhus University Research Foundation): 2.5 MM DKK
- QUEST (12.5 MM DKK)
 - External (Lundbeck, Municipality of Aarhus, Tips & Lotto): 4.5 MM DKK
 - Project participants: 8.0 MM DKK
- Create-IT (2.5 MM DKK)
 - External (Central Denmark Region, It-vest, Google): 2.1 MM DKK
 - Project participants: 0.4 MM DKK
- It-based innovation (1.85 MM DKK)
 - External (It-vest – Networking Universities): 1.85 MM DKK
- UtU (6.67 MM DKK)
 - External (Central Denmark Region): 2.77 MM DKK
 - Project participants: 3.9 MM DKK
- Science-brobygningsprojekt (0.5 MM DKK)
 - External (Danish Ministry of Education): 0.5 MM DKK
- Centre for Professional Development of Computing Teachers in Denmark (0.75 MM DKK)
 - External (Danish Ministry of Education): 0.75 MM DKK

Professional activities

2020-2022	Chair of the committee for the European Informatics Reference Framework for School established by the Informatics for All coalition.
2018-2021	Member of the ACM Karl V. Karlstrom Outstanding Educator Award Committee (Chairman of the 2019 and 2020 Award Committee).
2018-2019	Member of the Committee for a Communications of the ACM Special Issue highlighting computing leadership, innovation, and emerging leaders in Europe
2018-	Member of The Digital Council of the Danish Academy of Technical Sciences (ATV's Digitale Vismandsråd)
2018	Co-chair of the expert group developing curriculum for informatics in primary and lower-secondary school in Denmark (K-9)
2018-	Co-founder and member of the Steering Committee of the Informatics for All coalition in Europe
2017-2022	Member of the Board of Informatics Europe
2017	Chairman of the group developing a new optional informatics subject for lower secondary school in Denmark
2015-2018	Member of the ACM Education Council
2013-2018	Co-chair of the joint ACM Europe/Informatics Europe Committee on European Computing Education (CECE)
2006-2009	Member of the ACM Education Council
2008-	Member of the Board of the IEEE Nordic Education Society Chapter
2008-	Member of the Committee for Computing in High School conducted by the Danish Ministry of Education (fagligt forum for it-fag i gymnasiet)
2006-2017	Member of the Editorial Board of the journal Computer Science Education
2004-	Originator and founding member of the Scandinavian Pedagogy of Programming Network (SPoP)

1997-	Founder and project manager for the Centre for Professional Development and Further Education of College Computing Teachers in Denmark (Efteruddannelses-centeret)
1995-2000	Co-founder and Chairman of the Association for College Computing Teachers in Denmark (Datamatikerlærerforeningen)
1994-	Member of the Association for Computing Machinery (ACM)
2017	Symposium co-chair for the SIGCSE Technical Symposium, Seattle, USA
2016	Chair of Informatics Europe's Best Practices in Education Award Committee Program co-chair for the SIGCSE Technical Symposium, Memphis, Tennessee, USA Co-chair of Dagstuhl Seminar: Assessing Learning in Introductory CS
2014	Conference and program co-chair for the Annual Workshop in Primary and Secondary Computing Education, Berlin, Germany Conference chair and program co-chair for the Annual Workshop in Primary and Secondary Computing Education, Aarhus, DK
2013	Program co-chair for the Annual ACM SIGCSE Conference on Innovation and Technology in Computer Science Education, Haifa, Israel
2012	Program co-chair for the Annual International Computing Education Research workshop (ICER), Providence, USA
2011	Conference chair and program co-chair for the Annual International Computing Education Research workshop (ICER), Aarhus, DK
2010	Program co-chair for the Annual International Computing Education Research workshop (ICER), Berkeley, USA
2009	Program co-chair for the Annual International Computing Education Research workshop (ICER), Sydney, Australia
2008	Program co-chair for the Annual International Computing Education Research workshop (ICER), Sydney, Australia
2008-2011	Member of the leader triumvirate for the Annual International Computing Education Research workshop (ICER)
2002	Conference co-chair for the Annual ACM SIGCSE Conference on Innovation and Technology in Computer Science Education, Aarhus, DK
2012-2013	Member of the program committee for the Workshop in Primary and Secondary Computing Education (WiPSCE)
2011-2012, 2000-2002	Member of the program committee for the Annual ACM SIGCSE Conference on Innovation and Technology in Computer Science Education
2011-12	Member of the program committee for the Computer Science Education Research Conference (CSERC)
2002-2011	Member of the program committee for the International Conference on Computing Education Research, Koli Calling
2011	Member of the program committee for the SPLASH 2011 Educators' and Trainers' Symposium
2011	Co-organizer of the Pedagogical Progressions for Teaching Object-Oriented Design Workshop at ACM SIGCSE
2007-2009	Member of the program committee for the Annual Informatics Education Europe conference
2006	Member of the program committee for Joint Modular Language Conference (JMLC)
2013	Organizer of the Model-Driven Programming Education Workshop at ACE, Adelaide, SA, Australia
2005-2009	Co-organizer of the "Killer Examples" for Design Patterns and Objects First Workshop at ACM OOPSLA

- 2005 Co-organizer of the Model-Driven Programming Education Workshop at ACM SIGCSE, St. Louis, Missouri, USA
- 2001 Co-organizer of the Teaching Introductory Object-Oriented Programming with Java — Dangers, Traps, and a Road Map Workshop at ACM ITiCSE, Canterbury, USA
- 2001 Co-organizer of the Teaching Introductory Object-Oriented Programming with Java — Dangers, Traps, and a Road Map Workshop at ACM SIGCSE, Charlotte, USA
- 2013- Reviewer for the Communications of the ACM (CACM)
- 2010- Reviewer for the ACM Inroads
- 2009- Reviewer for the ACM Transactions on Computing Education (TOCE)
- 2008- Reviewer for ACM Journal of Educational Resources in Computing (JERIC)
- 1996- Reviewer for the Annual ACM SIGCSE Conference on Innovation and technology in Computer Science Education
- 1994- Reviewer for the Annual ACM SIGCSE Technical Symposium on Computer Science Education

Awards

- 2015 Special Teaching Award, Department of Computer Science, Aarhus University
- 2013 ACM Distinguished Member (Distinguished Educator)
Nominated for the Informatics Europe 2013 Best Practices in Education Award for Informatics Education in Schools
- 2000 The Danish Computer Science Teacher Prize (with EUC)
- 1999 The Danish Computer Science Teacher Prize

Selected invited talks and lectures

- 2016- Numerous talks on Informatics in School in DK and beyond
- 2016 Invited lecture at Judith Gal-Ezer's retirement symposium (/w David Harel)
Panel at The People's Political Festival, Bornholm: "Kodning på skoleskemaet – skal børn lære at programmere?"
Panel at The Danish Learning Festival: "En samtale om, hvilke kompetencer der er nødvendige til undervisning i digitalt design"
- 2015 ESTRO Forum 2015, Centre Convencions Internacional, Barcelona
- 2014 ACM Europe Council Meeting, Athens, Greece
The FEBS-EMBO Life Science Conference 2014, Palais des Congrès, Paris, France
Conference on Coding in School, VIA UC, Herning, Denmark
University of Copenhagen, Denmark
Danish Research Network Conference, Middelfart, Denmark
- 2010 Nordic Council Conference on Talent Development and Creativity in Science Education
University of Copenhagen, Denmark
- 2008 Helsinki University of Technology, Finland
Cornell University, Ithaca, NY, USA
- 2007 5th CeTUSS Workshop, Uppsala, Sweden
ACM Education Council meeting, Seattle, USA
- 2006 University of Kent at Canterbury, UK
State University of New York at Buffalo, NY, USA
Cornell University, Ithaca, NY, USA
Engineering College Copenhagen, Denmark
- 2005 Linköping University, Campus Norrköping, Sweden

	2nd CeTUSS Workshop, Uppsala University, Sweden
	Department of Information Technology, Uppsala University, Sweden
2001	IDA-Aarhus, The Engineering Association in Denmark
	IDA-Sønderborg, The Engineering Association in Denmark
2000	IDA-Copenhagen, The Engineering Association in Denmark
1999	JA00 '99, Aarhus, Denmark

Teaching

Since 1986 I have taught a broad variety of undergraduate and graduate courses in computer science.

I have developed and taught a variety of computing courses in the areas of programming, algorithms and data structures, programming languages, concurrency, software engineering, computer architecture, and operating systems. Most courses have been taught at the undergraduate level, but a few are graduate courses. Some courses were small (15 students) and some very large (400+ students and 20+ teaching assistants).

The following is a more or less complete list of courses I have taught (some courses have been taught in slight variations with different titles):

- Introduction to Programming
- Algorithms
- Data Structures
- Multimedia Programming
- Programming in the Large
- Object-Oriented Programming
- Object-Oriented Software Development
- Design Patterns
- Principles of Programming Languages
- Functional Programming
- Logic Programming
- Concurrency
- Compiler Construction
- Computer Architecture
- Operating Systems
- Software Engineering
- Systems Development
- Discrete Math for Computing

Mixtures of examination forms have been used, including oral, written, practical, and project exam (individual and group).

I have supervised approximately 50 students in a variety of areas.

Industrial courses and part-time consulting

1988- Numerous industrial courses and consulting activities at 20 Danish IT companies: Landbrugets Rådgivningscenter; Provinsbanken; Modulex; Den Danske Bank; Tele Danmark/TDC (Aarhus and Copenhagen); LEC (Landbrugets EDB-Center); Datrix ICL; Tandem Computers; Crisplant; CCI-Europe; Bang & Olufsen; Danfoss; Systematic Software Engineering; OMT-Consult; Ericsson DiAx; Mjølner Informatik; Stibo Directory Systems; Personics; Kommunedata (Aarhus and Copenhagen), Cryptomathic.

List of Publications

Michael E. Caspersen, 1st May 2022

I have a total of 64 peer-reviewed publications.

Bibliometric classification (Danish authority lists of the bibliometric research indicator) ¹

- 18 papers are published in level 2 publications (top 20%)
- 21 papers are published in level 1 publications
- 25 papers are published in unclassified publications

Journal/book/conference proceeding

- 23 papers are published in journals/books
- 41 papers are published in proceedings.

H-index

- My h-index is 25 (according to Google Scholar)

PhD dissertation

Caspersen, M.E.: "**Educating Novices in the Skills of Programming**", DAIMI PhD Dissertation PD-07-4, ISSN 1602-0448 (paper), 1602-0456 (online), 2007.

Peer-reviewed journal papers, conference papers, book chapters, and books

64. Caspersen, M.E., Dindler, C., Iversen, O.S. and Smith, R.C.: "**Computational Empowerment**", Chapter 6 in *Computational Thinking Education in K-12: Artificial Intelligence Literacy and Physical Computing*, Vol. 1, Eds.: Kong, S.-C. and Abelson, H., MIT Press, 2022.

63. Caspersen, M.E.: "**Informatics as a Fundamental Discipline in General Education: The Danish Perspective**", chapter 7.2, pp. 191-200, in *Perspectives in Digital Humanism*, Eds.: Ghezzi, C., Lee, E., Prem, E., Werthner, H. Springer Verlag, 2021.

62. Caspersen, M.E.: "**Fra teknologiforståelse til informatik**", MONA 2021-1, pp. 82-89.

61. Wagner, M.-L., Iversen, O.S. and Caspersen, M.E.: "**Teknologiforståelsens rationale: På vej mod computational empowerment i den danske grundskole**", *Unge Pædagoger*, 2020-1.

60. Bennedsen, J.B. and Caspersen, M.E.: "**Failure Rates in Introductory Programming—12 Years Later**", *ACM Inroads*, Vol. 10, No. 2, June 2019, pp. 30-36.

59. Caspersen, M.E., Gal-Ezer, J., McGettrick, A. and Nardelli, E.: "**Informatics as a Fundamental Discipline for the 21st Century**", *Communications of the ACM*, Vol. 62, No. 4, April 2019, pp. 58-63.

58. Caspersen, M.E.: "**Teaching Programming**", Chapter 9 in *Computer Science Education: Perspectives on Teaching and Learning in School*, Bloomsbury Publishing, 2018.

57. Caspersen, M.E., Gal-Ezer, J., Nardelli, E., Vahrenhold, J. and Westermeier, M.: "**The CECE Report: Creating a Map of Informatics in European Schools**", Proceedings of the 49th SIGCSE Technical Symposium on Computer Science Education, SIGCSE 2018, Baltimore, Maryland, USA, February 22-24, 2018.

56. McDermott, R., Daniels, M., Zarb, M., Pears, A.N., Nylén, A., Isomottonen, V. and Caspersen, M.E.: "**The Authenticity of "Authentic" Assessment—Some Faculty Perceptions**", Proceedings of the 47th Annual *Frontiers in Education Conference*, Indianapolis, USA, 2017.

55. Caspersen, M.E.: "**Computational Thinking**", Chapter 4.15 in *Gymnasiepædagogik – en grundbog*, Hans Reitzels Forlag, 2017. (In Danish.)

¹ Level 2 is the top 20% of the significant publication venues. Level 1 is the remaining 80% of the significant publication venues.

54. Kristensen, B.B., Nowack, P. and Caspersen, M.E.: "**To Program is to Model: Software Development is Stepwise Improvement of Models**", Proceedings of the 7th Annual International Conference on Computer Science Education: Innovation and Technology, CSEITI 2016, Singapore, October 2016.
53. Aureliano, V., Tedesco, P. and Caspersen, M.E.: "**Learning Programming Through Stepwise Self-explanations**", Proceedings of CISTI 2016, Gran Canaria, Spain, June 2016.
52. Bjælde, O. E, Caspersen, M.E., Godsk, M., Hougaard, R.F. and Lindberg, A.B.: "**Learning Design for Science Teacher Training and Educational Development**", Proceedings of Ascilite 2015, Perth, Western Australia, Australia, November 2015, pp. 21-30.
51. Börstler, J., Caspersen, M.E. and Nordström, M.: "**Beauty and the Beast: on the readability of object-oriented example programs**", *Software Quality Journal*, Springer US, 2015, pp. 1-16.
50. Bender, E., Schaper, N., Caspersen, M.E., Margaritis, M. and Hubwieser, P.: "**Identifying and formulating teachers' beliefs and motivational orientations for computer science teacher education**", *Studies in Higher Education*, 2015, pp. 1-16.
49. Nowack, P. and Caspersen, M.E.: "**Model-Based Thinking and Practice — A Top-Down Approach to Computational Thinking**", *Proceedings of the 14th Koli Calling International Conference on Computing Education Research*, Koli, Finland, November 2014, pp. 147-151.
48. Vicens, Q. and Caspersen, M.E.: "**Getting more scientists to revamp teaching**", *Journal of College Science Teaching*, Vol. 43 (5), 2014, pp. 22-27.
47. Utting, I., Tew, A.E., McCracken, M., Thomas, L., Bouvier, D., Frye, R., Paterson, J., Caspersen, M.E., Kolikant, Y.B-D., Sorva, J., and Wilusz, T.: "**A Fresh Look at Novice Programmers' Performance and Their Teachers' Expectations**", *Proceedings of the 18th Annual Conference on Innovation and Technology in Computer Science Education Working Group Reports*, ITiCSE 2013, Canterbury, Kent, UK, July 2013, pp. 15-32.
46. Caspersen, M.E. and Nowack, P.: "**Computational Thinking and Practice — A Generic Approach to Computing in Danish High Schools**", *Proceedings of the 15th Australasian Computing Education Conference*, ACE 2013, Adelaide, South Australia, Australia, January 2013.
45. Bennedsen, J., and Caspersen, M.E.: "**Persistence of Elementary Programming Skills**", *Computer Science Education*, Vol. 22 (2), June 2012, pp. 81-107.
44. Nielsen, B.L., Caspersen, M.E., and Dahl, B.: "**What Must PhD Students in Science Know About Education?**" (In Danish: "Hvad skal ph.d.-studerende på naturvidenskab vide om undervisning?"), *Dansk Universitetspædagogisk Tidsskrift*, 2011.
43. Bennedsen, J. and Caspersen, M.E.: "**Recalling Programming Competence**", *Proceedings of the 9th International Conference on Computing Education Research*, Koli Calling 2009, Koli, Finland, October 2009, pp. 86-95.
42. Skrien, D., Caspersen, M.E., Börstler, J., Decker, A., and Alphonse, C.: "**Good Examples for Exposing Bad Practice: A 'Killer Examples' Workshop**", *Companion to the 24th ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications*, OOPSLA 2009, Orlando, Florida, USA, 25-29 October 2009, pp. 711-712.
41. Davies, G., Cassel, L., Pyster, A.B., Caspersen, M.E., and Toppi, H.: "**ACM Education Board and Masters Level Programs**", *Proceedings of the 40th SIGCSE Technical Symposium on Computer Science Education*, Chattanooga, Tennessee, USA, 2009, pp. 487-488.
40. Caspersen, M.E. and Kölling, M.: "**STREAM: A First Programming Process**", *ACM Transactions on Computing Education (TOCE)*, Vol. 9 (1), Article No. 4, 2009.
39. Caspersen, M.E., Börstler, J., Decker, A, and Alphonse, C.: "**Worked Examples for Sound Object-Oriented Pedagogy: The Seventh 'Killer Examples' Workshop**", *Companion to the 23rd ACM SIGPLAN*

Conference on Object-Oriented Programming, Systems, Languages, and Applications, OOPSLA 2008, Nashville, Tennessee, USA, 19 - 23 October 2008, pp. 869-870.

38. Bennedsen, J. and Caspersen, M.E.: "**Abstraction Ability as an Indicator of Success for Performance in Learning Computer Science?**", *Proceedings of the 4th International Computing Education Research Conference, Sydney, New South Wales, Australia, September 2008.*

37. Börstler, J., Christensen, H.B., Bennedsen, J., Nordström, M., Westin, L.K, Moström, J.E., and Caspersen, M.E.: "**Evaluating OO Example Programs for CS1**", *Proceedings of the 13th Annual Conference on Innovation and Technology in Computer Science Education, ITiCSE 2008, Madrid, Spain, 30 June - 2 July 2008, pp. 47-52.*

36. Caspersen, M.E., Cassel, L.N., Davies, G., Pears, A., Seidman, S. and Topi, H.: "**What is Masters Level Education in Informatics**", *Proceedings of the 13th Annual Conference on Innovation and Technology in Computer Science Education, ITiCSE 2008, Madrid, Spain, 30 June - 2 July 2008, pp. 341.*

35. Bennedsen J. and Caspersen, M.E.: "**Optimists Have More Fun, But Do They Learn Better? On the Influence of Emotional and Social Factors on Learning CS and Math**", *Computer Science Education, Vol. 18 (1), March 2008, pp. 1-16.*

34. Caspersen, M.E. and Christensen, H.B.: "**Frameworks in Teaching**", In: *Reflections on the Teaching of Programming, LNCS 4821, Springer-Verlag, 2008, pp. 211-228.*

33. Caspersen, M.E. and Christensen, H.B.: "**CS1: Getting Started**", In: *Reflections on the Teaching of Programming, LNCS 4821, Springer-Verlag, 2008, pp. 145-158.*

32. Bennedsen, J.B. and Caspersen, M.E.: "**Model-Driven Programming**", In: *Reflections on the Teaching of Programming, LNCS 4821, Springer-Verlag, 2008, pp. 129-144.*

31. Bennedsen, J.B. and Caspersen, M.E.: "**Exposing the Programming Process**", In: *Reflections on the Teaching of Programming, LNCS 4821, Springer-Verlag, 2008, pp. 7-18.*

30. Caspersen, M.E.: "Introduction to Part II: **Introducing Object-Oriented Programming**", *Reflections on the Teaching of Programming, LNCS 4821, Springer-Verlag, 2008, pp. 77-79.*

29. Bennedsen, J.B., Caspersen, M.E., and Kölling, M. (Eds.): **Reflections on the Teaching of Programming**, LNCS 4821, Springer-Verlag, 2008.

28. Hummel, J., Alphonse, C., Bergin, J., Caspersen, M.E., Hansen, S., Heliotis, J.E. and Kölling, M.: "**Nifty Objects for CS0 and CS1**", *Proceedings of the 39th SIGCSE Technical Symposium on Computer Science Education, SIGCSE 2008, Portland, Oregon, USA, 2008, pp. 437-438.*

27. Cassel, L.N., Caspersen, M.E., Davies, G., McCauley, R., McGettrick, A., Pyster, A. and Sloan, R.: "**Curriculum Update from the ACM Education Board: CS2008 and a Report on Masters Degrees**", *Proceedings of the 39th SIGCSE Technical Symposium on Computer Science Education, SIGCSE 2008, Portland, Oregon, USA, 2008, pp. 530-531.*

26. Bennedsen, J.B. and Caspersen, M.E.: "**Assessing Process and Product — A Practical Lab Exam for an Introductory Programming Course**", *ITALICS, Innovation in Teaching and Learning in Information and Computer Sciences, Vol. 6 (4), Special Issue on Innovative Methods of Teaching Programming, 2007, pp. 183-202.*

25. Alphonse, C., Börstler, J., Caspersen, M.E., Decker, A. and Kölling, M.: "**Process in OO Pedagogy: A 'Killer' Workshop**", *Companion to the 22nd ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications, OOPSLA 2007, Montreal, Quebec, Canada, 21-25 October 2007, pp. 737-738.*

24. Caspersen, M.E. and Bennedsen, J.: "**Instructional Design of a Programming Course: A Learning Theoretic Approach**", *Proceedings of the 3rd International Computing Education Research Conference, Atlanta, Georgia, USA, September 2007, pp. 111-122.*

23. Bennedsen, J.B. and Caspersen, M.E.: "**Failure Rates in Introductory Programming**", In: SIGCSE Bulletin inroads, Volume 39, Number 2, June 2007, pp. 32-36.
22. Caspersen, M.E., Bennedsen, J., and Larsen, K.D.: "**Mental Models and Programming Aptitude**", *Proceedings of the 12th Annual Conference on Innovation and Technology in Computer Science Education*, ITiCSE 2007, Dundee, Scotland, 25 - 27 June 2007, pp. 206-210.
21. Alphonse, C., Caspersen, M.E., and Decker, A.: "**Killer 'Killer Examples' for Design Patterns**", *Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education*, Covington, Kentucky, USA, 2007, pp. 228-232.
20. Bennedsen, J.B. and Caspersen, M.E.: "**Assessing Process and Product — A Practical Lab Exam for an Introductory Programming Course**", *Proceedings of the 36th Frontiers in Education Conference*, San Diego, USA, 2006, pp. T1A-1 - T1A-6.
19. Caspersen, M.E. and Kölling, M.: "**A Novice's Process of Object-Oriented Programming**", *Companion to the 21st ACM SIGPLAN Conference on Object-Oriented Programming Systems, Languages, and Applications*, Portland, Oregon, USA, October 2006, pp. 892-900.
18. Alphonse, C., Caspersen, M.E., Decker, A. and Trask, B.: "**'Killer Examples' for Design Patterns: The Fifth Annual OOPSLA 'Killer Examples' Workshop**", *Companion to the 21st ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications*, OOPSLA 2006, Portland, Oregon, USA, 22-26 October 2006, pp. 625-626.
17. Bennedsen, J.B. and Caspersen, M.E.: "**Abstraction Ability as an Indicator of Success for Learning Object-Oriented Programming?**", *SIGCSE Bulletin inroads*, Volume 38, Number 2, June 2006, pp. 39-43.
16. Bennedsen, J.B. and Caspersen, M.E.: "**Abstraction Power in Computer Science Education**", *Psychology of Programming Interest Group Conference — Work-in-Progress*, Coventry, January 2006.
15. Bennedsen, J.B. and Caspersen, M.E.: "**An Upcoming Study of Potential Success Factors for an Introductory Model-Driven Programming Course**", *Proceedings of the Koli Calling 2005 Conference on Computer Science Education*, Koli, Finland, 2005, pp. 166-169.
14. Bennedsen, J.B. and Caspersen, M.E.: "**An Investigation of Potential Success Factors for an Introductory Model-Driven Programming Course**", *Proceedings of the 1st International Computing Education Research Conference*, Seattle, Washington, USA, 2005, pp. 155-163.
13. Bergin, J., Wallingford, E., Caspersen, M.E., Goldweber, M. and Kölling, M.: "**Teaching Polymorphism Early**", *Proceedings of the 10th Annual Conference on Innovation and Technology in Computer Science Education*, ITiCSE 2005, Lisbon, Portugal, 27 - 29 June 2005.
12. Bennedsen, J.B. and Caspersen, M.E.: "**Revealing the Programming Process**". In: *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education*, St. Louis, USA, 2005, pp. 186-190.
11. Fjuk, A., Berge, O., Bennedsen, J., and Caspersen, M.E.: "**Learning Object-Oriented Programming through ICT-mediated Apprenticeship**", *ICALT 2004, the fourth IEEE International Conference on Advanced Learning Technologies*, Joensuu, Finland, 2004.
10. Bennedsen, J. and Caspersen, M.E.: "**Teaching Object-Oriented Programming — Towards Teaching a Systematic Programming Process**". *Proceedings of the Eighth Workshop on Pedagogies and Tools for the Teaching and Learning of Object-Oriented Concepts*, 18th European Conference on Object-Oriented Programming (ECOOP 2004), 14-18 June, 2004, Oslo, Norway.
9. Bennedsen, J. and Caspersen, M.E.: "**Programming in Context — A Model-First Approach to CS1**". *Proceedings of the thirty-fifth SIGCSE Technical Symposium on Computer Science Education*, Norfolk, Virginia, USA, 2004, pp. 477-481.

8. Bennedsen, J. and Caspersen, M.E.: **“Rationale for the Design of a Web-based Programming Course for Adults”**, *Proceedings of the International Conference on Open and Online Learning 2003*, ICOOL 2003, Mauritius, December 2003.
7. Caspersen, M.E.: **“An Inverted Curriculum for CS1”**, *Proceedings of Frontiers in Education 2003*, Boulder, Colorado, November 2003.
6. Caspersen, M.E. and Christensen, H.B.: **“The Need for Killer Examples for Object-Oriented Frameworks”**. *Proceedings of the 18th Annual ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications*, OOPSLA 2003, Anaheim, California, USA, 26-30 October 2003.
5. Bennedsen, J.B. and Caspersen, M.E.: **“A Model-First Approach to Teaching Introductory Object-Oriented”**, *COOL Workshop on Learning and Teaching Object-Oriented — Scandinavian Perspectives*, Oslo, October 2003.
4. Andersen, P.B., Bennedsen, J., Brandorff, S., Caspersen, M.E., and Mosegaard, J.: **“Teaching Programming to Liberal Arts Students — a Narrative Media Approach”**, *Proceedings of the eighth Annual Conference on Innovation and Technology in Computer Science Education*, ITiCSE 2003, Thessalonica, Greece, 30 June - 2 July 2003.
3. Caspersen, M.E.; Christensen, H.B.: **“Frameworks in CS1 — a Different Way of Introducing Event-driven Programming”**, *Proceedings of the seventh Annual Conference on Innovation and Technology in Computer Science Education*, ITiCSE 2002, Aarhus, Denmark, 24-26 June 2002.
2. Caspersen, M.E. and Christensen, H.B.: **“Here, There and Everywhere — On the Recurring Use of Turtle Graphics in CS1”**, *Proceedings of the fourth Australasian Computing Education Conference*, ACE 2000, Melbourne, Australia, pp. 34-40. ACM Press, 2000. ISBN 1-58113-271-9.
1. Caspersen, M.E.: **“A C++ Framework for Active Objects in Embedded Real-Time Systems — bridging the gap between modelling and implementation”**, *Technology of Object-Oriented Languages and Systems*, TOOLS 32, Melbourne, Australia, pp. 52-65. IEEE Computer Society, 1999. ISBN 0-7695-0462-0.

Proceedings of conferences served as program or conference chair/co-chair

10. Barnes, T., Caspersen, M.E., Edwards, S. and Garcia, D. (Eds.): *Proceedings of the 48th SIGCSE Technical Symposium on Computer Science Education*, SIGCSE 2017, Seattle, Washington, USA, March 9-11, 2017.
9. Alphonse, C., Caspersen, M., Edwards, S. and Tims, J. (Eds.): *Proceedings of the 47th SIGCSE Technical Symposium on Computer Science Education*, SIGCSE 2016, Memphis, Tennessee, USA, March 3-5, 2016.
8. Caspersen, M.E., Gal-Ezer, J. and Schulte, C. (Eds.): *Proceedings of the 9th Workshop in Primary and Secondary Computing Education*, WiPSCE 2014, Berlin, Germany, November 5-7, 2014. ACM 2014.
7. Caspersen, M.E., Knobelsdorf, M., and Romeike, R.: "Proceedings of the 8th Workshop in Primary and Secondary Computing Education", WiPSCE 2013, Aarhus, Denmark, November 11-13, 2013. ACM 2013.
6. Lapidot, T., Gal-Ezer, J., Caspersen, M.E. and Hazzan, O. (Eds.): *Proceedings of the 17th Annual Conference on Innovation and Technology in Computer Science Education*, ITiCSE 2012, Haifa, Israel, July 3-5, 2012. ACM 2002, ISBN 978-1-4503-1246-2.
5. Sanders, K., Caspersen, M.E. and Clear, A. (Eds.): *Proceedings of the 7th International Computing Education Research Workshop*, CER 2011, Providence, RI, USA, August 8-9, 2011. ACM 2011, ISBN 978-1-4503-0829-8.

4. Caspersen, M.E., Clancy, M. and Sanders, K. (Eds.): Proceedings of the 6th International Computing Education Research Workshop, CER 2010, Aarhus, Denmark, August 9-10, 2010. ACM 2010, ISBN 978-1-4503-0257-9.
3. Clancy, M., Caspersen, M.E. and Lister, R. (Eds.): Proceedings of the 5th International Computing Education Research Workshop, CER 2009, Berkeley, CA, USA, August 10-11, 2009. ACM 2009, ISBN 978-1-60558-615-1.
2. Caspersen, M.E., Clancy, M. and Lister, R. (Eds.): Proceedings of the 4th International Computing Education Research Workshop, CER 2008, Sydney, New South Wales, Australia, September 6-7, 2008. ACM 2008, ISBN 978-1-60558-216-0.
1. Caspersen, M.E., Joyce, D.T., Goelman, D. and Utting, I. (Eds.): Proceedings of the seventh Annual Conference on Innovation and Technology in Computer Science Education, ITICSE 2002, Aarhus, Denmark, June 24-26, 2002. ACM 2002, ISBN 1-58113-499-1.

Textbooks

2. Bennedsen, J.B., Caspersen, M.E., Ørhøj, K.: "**Program Construction — Algorithmic Patterns and Abstract Data Types**", *Datamatikforlaget*, 1993 (in Danish).
1. Bennedsen, J.B., Caspersen, M.E., Ørhøj, K.: "**Program Construction — An Introduction to Programming in Pascal**", *Datamatikforlaget*, 1993 (in Danish).

Technical reports

5. Caspersen, M.E., Gal-Ezer, J., McGettrick, A. and Nardelli, E.: "**Informatics for All: The strategy**", DOI 10.1145/3185594, 2018.
4. Vahrenhold, J. (co-chair), Nardelli, E., Pereira, C., Berry, G., Caspersen, M.E. (co-chair), Gal-Ezer, J., Kölling, M., McGettrick, A. and Westermeier, M.: "**Informatics Education in Europe: Are We All In The Same Boat**", Committee on European Computing Education (CECE), ISBN: 978-1-4503-5361-8, 2017.
3. Caspersen, M.E., Fislser, K. and Vahrenhold, J.: "**Assessing Learning In Introductory Computer Science**", Report from Dagstuhl Seminar 16072, 2016.
2. Börstler, J., Caspersen, M.E., and Nordström, M.: "**Beauty and the Beast — Toward a Measurement Framework for Example Program Quality**", Technical Report, Department of Computing Science, Umeå University, 2007. ISSN 0348-0542
1. Caspersen, M.E., Madsen, O.L., and Skov, S.H.: "**Testing Object-Oriented Software**", Technical Report, Centre for Object Technology, Department of Computer Science, University of Aarhus, 2001. COT/2-43-V1.0

Policy reports

2. Vahrenhold, J. (co-chair), Nardelli, E., Pereira, C., Berry, G., Caspersen, M.E. (co-chair), Gal-Ezer, J., Kölling, M., McGettrick, A. and Westermeier, M.: "**Informatics Education in Europe: Are We All In The Same Boat**", ACM and Informatics Europe, 2017.
1. Caspersen, M.E., Gal-Ezer, J., McGettrick, A and Nardelli, E.: "**Informatics for All: The Strategy**", ACM and Informatics Europe, 2018.

Work in progress

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1. Caspersen, M.E.: "Stepwise Refinement Considered Harmful".
2. Caspersen, M.E.: "Programming Methodology and Education: Past, Present, and Future".
3. Caspersen, M.E.: "A Taxonomy of List Algorithms".

Lecture notes (in Danish)

- Caspersen, M.E.: "Logic", 9 pages, 1994.
- Caspersen, M.E.: "Specifications", 4 pages, 1994.
- Caspersen, M.E.: "Q – An Algorithmic Notation", 7 pages, 1990.
- Caspersen, M.E.: "Assertions", 12 pages, 1990.
- Caspersen, M.E.: "Optimisations by Strengthening Invariants", 6 pages, 1994.
- Caspersen, M.E.: "Dynamic Equivalence Relations", 6 pages, 1992.
- Caspersen, M.E.: "Graph Traversals", 5 pages, 1992.
- Caspersen, M.E.: "Algorithms in Distributed Systems", 10 pages, 1994.
- Caspersen, M.E.: "Termination Detection in a Ring", 4 pages, 1994.
- Caspersen, M.E.: "Abstract Data Types and the Class Concept", 15 pages, 1990.
- Caspersen, M.E.: "Systems Development", 4 pages, 1989.
- Caspersen, M.E.: "Searching", 14 pages, 1987.
- Bennedsen, J., Caspersen, M.E., and Dybdahl, M.: "Persistence – Integration of Class Model and Database Model", 13 pages, 1996.

Feature articles (in Danish)

- Caspersen, M.E.: "Når voksne videreuddanner sig", Jyllands-Posten, 1 June 2003.
- Caspersen, M.E. and Bennedsen, J.: "Sekvenser – et nyttigt redskab i den introducerende programmeringsundervisning", Datamatikerlærerforeningens Blad, No. 4, 1996.
- Caspersen, M.E. and Bennedsen, J.: "Turtlemaskinen – en sjov og lærerig introduktion til programmering", Datamatikerlærerforeningens Blad, No. 3, 1996.
- Caspersen, M.E. and Bennedsen, J.: "Programmering med klodser – et moderne programmeringskursus", Datamatikerlærerforeningens Blad, No. 2, 1995.
- Caspersen, M.E.: "The Promised Land – eller: How to bli' en bachelor", Overlærer Olsen Inc., No. 2, 1994.