

Chee-Kit Looi

Associate Professor, Learning Sciences & Technologies Academic Group & Learning Sciences Lab
Head, Centre of Excellence in Learning Innovation
National Institute of Education
Nanyang Technological University
1 Nanyang Walk
Singapore 637616
Tel : (65) 6 790 3268
Fax : (65) 6 896 8038
Email address : cheekit.looi@nie.edu.sg

Courses taught or currently teaching:

EED 100: Introduction to Instructional Technology
PED 513: Instructional Technology
CED201: Learning, Thinking and Instructional Technologies
MAIDT 816: Advanced Computer-based Learning Systems
MAIDT 809: Designing, Conducting, and Reporting Investigations
MAIDT 834: Technologies as Cognitive Tools
MED 807: Cognitive Foundations of the Learning Sciences
DDM: Diploma in Departmental Management
LEP: Leaders in Education Programme

Education: BSc (Hons), MSc (UBC), PhD (Edinburgh)

Awards :

Singapore's Public Service Commission's Merit Scholarship (1976-1980)
Teaching assistantship and research assistantship at UBC (1982-1984)
University Studentship at University of Edinburgh (1985-1988)
Singapore's Tan Kah Kee Postgraduate Scholarship (1985-1988)

Professional Qualifications :

Member of the British Computer Society (1986-1990);
Member of Association of Advancement of Computers in Education (1992-2000);
Member of Singapore Computer Society (1991-);
Member of International Artificial Intelligence in Education Society (1996-);
Member of IEEE Computer Society (1998-2004)
Previously member of AARE and ASCD
Member of Asia-Pacific Society for Computers in Education (2004-)
Member of International Society of Learning Sciences (2005-)

Patents filed with US PTO:

Optimizing delivery of computer media (United States Patent: 6,728,760)

Work Experience :

- a. August 1980 - August 1982 in System & Computer Organisation, Ministry of Defence, Singapore:

As a **systems engineer** in System & Computer Organisation, Ministry of Defence, Singapore. Work involved systems study of ministry departments to streamline operations and introduce computerisation for greater productivity and efficiency, and the development of computer simulation combat systems, the first computer-based war game efforts in MINDEF.

- b. May 1984 - March 1985 in System & Computer Organisation, Ministry of Defence, Singapore:

As an **information systems officer** in System & Computer Organisation, Ministry of Defence, Singapore. Work involved the development of a computer simulation system for the marshalling of civil vehicles in the event of a national emergency, the development of computer network simulations to assess traffic load flows, and the setting up of an AI group to explore feasible areas for expert system application.

- c. September 1988 - in Information Technology Institute (ITI), Research and Development arm of National Computer Board of Singapore:

Technical leader in Knowledge Systems Laboratory, Information Technology Institute (ITI), for project which involves the development of a computational model for doing internal control audit evaluation, the design of a knowledge-based decision support tool for auditors, conceptualisation of the domain and development of a demonstrable prototype (1988-1989);

Initiate technology investigation and research activities in Knowledge Systems Laboratory, Information Technology Institute (1989-1991); about 25 staff of Knowledge Systems Laboratory Investigate the utility of neural network technology for optimization and classification problems (1990-1991)

Project leader of 5-year Japan-Singapore research cooperation project on Intelligent CAI. Coursewares on C programming language and Japanese language were developed (1990-1994). Coordination of several partners and participants including Information Processing Agency of Japan, Mitsubishi Research Institute, National Computer Board, Japan-Singapore Institute of Software Technology, Singapore Polytechnic, and Ngee Ann Polytechnic.

Technical leader of ITI projects on using neural networks for prediction problems (work with Singapore Tourist Promotion Board and School of Accountancy, Nanyang Technological University), time series forecasting (local trading company) and pattern recognition (DBS) (1991-1993)

Technology Group Leader for Knowledge Systems and Algorithms (1992-3)

Member of National Computer Board's sectoral study team that proposed a National Plan for IT for Education & Training that resulted in Singapore's IT2000 plan (1991)

Member of IT R&D Committee of National Science & Technology Board to review IT R&D plan for Singapore (1993)

Consultant to Student-Teacher Workbench - a national project to build and deploy IT applications in education and training as part of the Intelligent Island vision (1993)

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Project Leader of study on recommendations and implementation of technical career path in ITI as a research organization (1992-1993)

Consultant for local IT training company Informatics Holdings International - conducted feasibility study in the use of IT for enhancing teaching and learning in Informatics Computer Schools (1994)

Consultant and project leader of 2-year joint project between ITI and Informatics Computer Schools to develop Students' Multimedia Integrated Learning Environment (1994-1995)

Consultant for joint project between ITI and Singapore Network Services to develop intelligent user agent for network access (1994)

Principal co-investigator of National Science Technology Board funded project with NUS researcher to develop collaborative learning environment and work with Raffles Girls School and Anglo Chinese School (1995)

Project leader of project to research and develop a cognitive-apprenticeship-based learning environment for primary school children to learn word-problem solving using model building, and conducted field tests in Clementi Town Primary School and Anglo-Chinese Primary School at Barker Road (1995)

Collaborated with Vanderbilt University to introduce anchored instruction for mathematics learning in Singapore Chinese Girls School and Anglo-Chinese Primary School (Junior) (1996)

Develop collaborative writing system on the Internet for students to weave stories - deployed during the launch of Singapore Science Centre website (1996)

Program manager of Educational Technology Programme to build up core competencies in educational technology; conceptualizes, designs and sponsors

- WORDMATH - a software engine for building cognitive apprenticeship tutor for word problem solving
- IASSESS - a software engine for building assessments in computer-based courseware
- SpaceALIVE! projects - a comprehensive collaborative learning environment on the Internet

WORDMATH licensed to local companies SkyMedia and SNP; assessment engine iASSESS licensed to SNP (1997)

Assistant Director (Technology) leading SpaceALIVE! (web-based MOO) projects - RGSALIVE! with Raffles Girls School and ScienceALIVE! involving 10 secondary schools with Ministry of Education (1997)

Principal co-investigator of NIE funded project SUCCESS with NIE colleagues and two schools to integrate information technology into classroom learning for Normal Technical students, as well as follow-on project involving two local schools and a school in Hong Kong (1997-9)

d. April 1998 - June 2000 in Kent Ridge Digital Labs (KRDL):

Project manager of Proactive Support for Collaboration in Learning project and Shared Mindtools project (1998); Shared Mindtools licensed to eduTools, an IDA and MOE-funded project, and Times Learning Systems; applied for three US patents

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Project manager for TransportationALIVE! project (1998) involving students from 7 ASEAN countries

Consultant for SEAMEO Internet Schools project II (1999) involving students from 8 ASEAN students

e. July 2000 - Dec 2003 Institute of Systems Science (ISS), National University of Singapore:

Senior Programme Director (e-learning) ISS; managed and rolled-out first e-learning course for ISS; managed and conducted e-learning research (principal investigator); initiated research in three areas to support ISS e-learning:

- Developing engaging learning experiences through simulation
- Organization the knowledge and data generated by collaborative learning
- Supporting peer learning

Pedagogy advisor of Virtual Institute (online learning environment)

Teach short courses on e-learning, and Master courses in Knowledge-Based Systems, Genetic Algorithms, Intelligent Agents

Professional Activities

1. Editor of Singapore Computer Society IT Journal (1991 - 2003).
2. Member of Technical & Organizing Committees of First Singapore International Conference on Intelligent Systems, Sept, 1982 (SPICIS 92).
3. Vice-president of Singapore Computer Society AI Chapter (1992, 1993).
4. President of Singapore Computer Society AI Chapter (1994 -1995).
5. Chair of Technical Committee & Member of Organizing Committee of Second Singapore International Conference on Intelligent Systems, Nov, 1994 (SPICIS 94).
6. Conference Chair of International Conference on Computers in Education, Dec, 1995 (ICCE 95).
7. Executive Council Member of Association for the Advancement of Computing in Education Asia-Pacific Chapter (AACE APC) (1993-2001), and Asia Pacific Society for Computers in Education (2001 - present)
8. President-elect of Association for the Advancement of Computing in Education Asia-Pacific Chapter (AACE APC) (1996-1997).
9. President of Association for the Advancement of Computing in Education Asia-Pacific Chapter (AACE APC) (1997-2001).
10. Council Member of TIMS College on AI and Management Science (1994 - 2000).
11. Executive Committee Member of the Global Chinese Society on Computers in Education (1997 - present)
12. Executive Committee Member of the International Society of Artificial Intelligence & Education (1997 - present)
13. Managing Editor of International Journal on Information Technology (1996 - 2000)
14. Member of programme committees of:
 - International Conference on Computers in Education (ICCE), Taiwan, 1993;
 - Pacific-Asia Conference on Expert Systems, Huang Shan, China, 1995;
 - AACE International Conference on AI in Education, Washington, D.C., 1995;
 - International Conference on AI in Education, Kobe, Japan, 1997;
 - International Conference on AI in Education, Le Mans, France, 1999;
 - International Conference on AI in Education, San Antonio, USA, 2001;
 - International Conference on AI in Education, Sydney, Australia, 2003;
 - International Conference on AI in Education, Los Angeles, 2007;
 - International Conference on AI in Education, Brighton, U.K, 2009;

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- World Congress on Expert Systems, Seoul, South Korea, 1996;
 - International Conference on Intelligent Tutoring Systems (ITS-1996), Montreal, Canada, 1996;
 - International Conference on Computers in Education, 1995, Singapore;
 - International Conference on Computers in Education, 1997, Kuching, Malaysia;
 - International Conference of Intelligent Tutoring Systems (ITS-1998), Texas, USA, 1998;
 - International Conference of Intelligent Tutoring Systems (ITS-2000), Montreal, Canada, 2000;
 - International Conference of Intelligent Tutoring Systems (ITS-2002), San Sebastian, Spain, 2002;
 - International Conference of Intelligent Tutoring Systems (ITS-2004), Maceio, Brazil, 2004;
 - International Conference of Intelligent Tutoring Systems (ITS-2006), Taipei, 2006;
 - International Conference of Intelligent Tutoring Systems (ITS-2008), Montreal, Canada, 2008;
 - Pacific Rim Conference on AI, Melbourne, Australia, 2000; Tokyo, Japan, 2002; Auckland, New Zealand, 2004
 - Global Chinese Conference on Computers in Education, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006
 - International Conference on Computers in Education, 1995, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007
 - Education Track, Fourteenth International World Wide Web Conference, May 10-14, Chiba, Japan
 - and other conferences.
15. Conference Chair of International Conference on Computers in Education, 1998, Beijing, China.
 16. Conference Chair of International Conference on Computers in Education, 1999, Chiba, Japan.
 17. Conference Chair of Global Chinese Conference on Computers in Education, 29-31 May 2000, Singapore.
 18. Conference Chair of International Conference on Computers in Education, 2000, Taipei, Taiwan.
 19. Conference Chair of International Conference on Computers in Education, 2001, Seoul, Korea.
 20. Programme Co-chair of International Conference on Computers in Education, 2004, Melbourne, Australia.
 21. Programme Co-chair of IEEE International Conference on Advanced Learning Technologies, Joensuu, Finland, 2004
 22. Regional Editor and Member of International Board of Advisors for Journal of Computer-Assisted Learning, Blackwell Publishers
 23. Editor of International Journal of Learning Technologies, since 2003
 24. Referee for research proposals from Hong Kong's University Grant Committee, 1998, 1999, 2000, 2001, 2002, 2003, 2004
 25. Programme Co-chair of International Conference on Artificial Intelligence & Education, 2005, July 18-22, Amsterdam, the Netherlands.
 26. Programme Co-chair of International Conference on Computers in Education, 2005, Singapore.
 27. Editorial Board of International Journal on Computer-Supported Collaborative Learning of the International Society of the Learning Sciences.
 28. International Scientific Advisory Board of the IMPDET (International Multidisciplinary Ph.D. Studies in Educational Technology) programme of University of Joensuu, Finland, since 2004.
 29. External Examiner for Chinese University of Hong Kong, MA in IT-in-Education, since 2004.
 30. Editorial Board Member of Book Series "The Future of Learning", IOS Press.
 31. Advisory Board, James J. Kaput Center for Research and Innovation in Mathematics Education, University of Massachusetts, Dartmouth.
 32. Programme Committee member of workshop on MULE (mobile and ubiquitous learning environment, Hiroshima, Japan, on Nov 5-9, 2007.
 33. Programme Co-Chair of International Conference on Computers in Education, 2008, Taipei, Taiwan.
 34. Programme Committee member of IEEE Wireless, Mobile and Ubiquitous Technologies in Education, WMUTE, 2008.
 35. Member of Editorial Board, IEEE Transactions on Learning Technologies (TLT)

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36. Member of SingTel Customer Advisory Council for Education (since 2008)
37. Programme Co-Chair of International Conference on Computers in Education, 2009, Hong Kong China.
38. Senior Programme Committee member of Intelligent Tutoring Systems, 2010, Pittsburgh, USA.
39. General Co-chair, Global Chinese Conference on Computers in Education, 2010, Singapore.
40. Programme Committee member of IEEE Wireless, Mobile and Ubiquitous Technologies in Education, WMUTE, 2010.

Teaching Experience :

- a. August 1980 - August 1982 :
As a part-time senior tutor in the Departments of Mathematics and Computer Science, National University of Singapore for undergraduate courses in FORTRAN programming, statistics and operational research.
- b. September 1982 - March 1984 :
As a teaching assistant in the Department of Computer Science, University of British Columbia for undergraduate courses in Pascal programming, theory of computation, numerical analysis, and design of algorithms.
- c. October 1985 - June 1986 :
As a tutor in the Department of Mathematics, University of Edinburgh for undergraduate course in Engineering Mathematics.
- d. October 1991 - June 1994 :
As Adjunct Lecturer in the School of Applied Science, Nanyang Technological University, teaching AI courses.
- e. July 1997 - Feb 2001:
As Adjunct Associate Professor in School of Education, National Institute of Education, Nanyang Technological University teaching instructional technology courses to both pre-service and in-service teachers, including Masters of Education courses and Masters of Art in Instructional Design and Technology courses.
- f. Jan 2004 -
As Associate Professor in Learning Sciences & Technologies Academic Group, National Institute of Education, Nanyang Technological University teaching courses to pre-service and in-service teachers, and Masters of Arts in Instructional Design & Technology courses.

Research Grants Obtained:

1. Co-PI of Designing pedagogical support for enabling inquiry learning through a learning community approach (Jan-05 to Jan-08, S\$189,806 from LSL)
2. PI of Fostering a Teachers' Community of Practice mediated by an emerging CSCL tool, LSL funding (Nov-05 to Aug-06, S\$40,950 from LSL)
3. PI of Enriching Teachers' Pedagogical Practices in Singapore School through a Design-based Approach with Interactive Whiteboards as Catalyst (Jan-06 to Aug-06, S\$49,945 from LSL)
4. PI of Developing strong conceptual foundations in mathematical reasoning and problem-solving in algebra through multiple and dynamic representations, and digital manipulatives (Jul-06 to Dec-08, S\$197,705 from LSL)
5. PI of Engaging secondary school students with the mathematics of change (Sep-06 to Dec-07, S\$49,923 from LSL)
6. co-PI of Envisioning Learning Environments of the Future: A Collaboration with the LSL of Singapore (DLAC-2), May 2007 - May 2008, US\$ 40K from US NSF)
7. PI, National Research Foundation, NRF2007-IDM003-MOE-001 Group Scibbles: Flexible Collaboration for Interactive Whiteboard (IWB) Classrooms (Sep-07 to Sep-10, S\$1,134,834)

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8. PI, National Research Foundation, NRF2007-IDM005-MOE-008 Leveraging Mobile Technology for Sustainable Seamless Learning in Singapore SchoolsI (Apr-08 to Mar-11, S\$1,070,160)
9. co-PI, National Research Foundation, NRF2008-IDM001-MOE-015, Intelligent Agent-Augmented Multi-User Virtual Environments: Research into Designs for Learning Environments of the Future (1-Oct-2008 to 1-Oct-2011, S\$1,696,000)
10. co-PI, National Research Foundation, NRF2008-IDM001-MOE-015, NRF2009-IDM001-MOE-019, Towards pervasive pedagogical practices and learning in 21st Century (03-Sep-2009 to 03-Sep-2013, S\$5,154,680.34)

Awards/Invited Talks/Tutorials

1. **Invited speaker** for Educational Technology Conference organized by MOE and NCB in May 30-31, 1994, *Intelligent Tutoring Systems: Are they feasible or do we need them anyway?*
2. **Best conference paper award** for [Sim, W.C., Looi, C.K. & Quek H.C. 1994] *A 2-D Framework on Qualitative and Quantitative Models in an ITS*, East-West International Conference on Computer Technologies in Education, Crimea, Ukraine, China, September, 1994.
3. **Best conference paper award** for [Wong, L.H., Looi, C.K. & Quek H.C. 1995] *An ITS to Plan Inquiry Dialogue*, 7th World Conference on AI in Education, Aug 16-19, 1995.
4. **Tutorial speaker** on *Intelligent Computer Tutors* at Symposium on Intelligent Systems Applications, Singapore, November, 1993.
5. Invited talk on Intelligent Systems in Singapore to Rotary Club of Singapore North, November, 1994.
6. **Invited Colloquium Speaker**, *Jasper in Singapore: A Case Study of Pupils' Problem Solving in Real-Life Contexts*, Learning Technology Centre, Vanderbilt University, USA, June 10, 1996.
7. **Outstanding conference paper award** for "EPIGAME: An Environment for Learning Epistemic Games", International Conference on Computers in Education, Kuching, Sarawak, Malaysia, 1997, pp. 147-154.
8. **Tutorial speaker** on Teaching and Learning on MUDs, MOOs and WOOs, International Conference on Computers in Education, Kuching, Sarawak, Malaysia, 1997.
9. **Invited speaker** for Global Chinese Conference on Computers in Education, Guangzhou, China, May 1997;
10. **Invited speaker** for International Conference on AI & Education, Japan, 1997;
11. **Invited speaker** for Annual Hong Kong Educational Research Association Conference, Hong Kong, 1997;
12. **Invited speaker** on "Effective Uses of Technology for Military Training" at SAFTI Military Institute, 24 Nov 1998
13. **Invited speaker** for Global Chinese Conference on Computers in Education, Hong Kong, China, June 1998;
14. **Guest speaker** for Singapore Computer Systems "Instructional Design Seminar", November 1999.
15. **Invited panel speaker** at International Conference on Computers in Education, Chiba, Japan, November 1999.
16. **Guest speaker** at South China Normal University and South-West China Normal University, November 2000
17. **Invited speaker** at National Computer-Based Education Conference in ChungKing, China, November 2000
18. **Invited speaker** for International Conference on Computers in Education, Taiwan, November 2000
19. **Invited speaker** for Malaysia International Conference & Exhibition on Electronic Learning 2000 (e-learning 2000 Conference), Kuala Lumpur, Malaysia, 25-28 May 2000.
20. **Invited speaker** for Seminar on Web-based Education and Information Technology for Schools, ChungLi, Taiwan, 9 September 2000.
21. **Invited speaker** for International Conference on Computers in Education, Taipei, Taiwan, November 21-24, 2000.

Confidential

22. **Guest speaker** for E-Education: Environments, Effectiveness, Economics and Expectations Conference at National University of Singapore, Singapore, 9 January 2001.
23. **Best conference paper award** for *Supporting Conversations and Learning in Online Chat*, 10th World Conference on AI in Education, May 19-23, 2001.
24. **Invited panel speaker** for Global Chinese Conference on Computers in Education, ChungLi, Taiwan, 8-10 June.
25. **Invited speaker** for Internet Business 2001 – The Evolving Net Economy, 6-7 September 2001.
26. **International Visitor**, Monash University, Australia, 17-18 October 2001.
27. **Keynote speaker**, International Conference on Artificial Intelligence, Kedah, Malaysia, 1-2 November 2001.
28. **Invited speaker**, Pan-Yellow-Sea International Workshop on Information Technologies for Network Era (PYIWIT'02, Kyushu, Japan, 7-8 March 2002.
29. **Tutorial speaker**, International Summer School on Educational Technology, 26-30 August, Joensuu, Finland, 2-3 September 2002.
30. **Keynote speaker**, First International Conference on Educational Technology in Cultural Context, Joensuu, Finland, 2-3 September 2002.
31. **Keynote speaker**, International Conference on E-Education, Macau, 24-25, June 2004.
32. **Keynote speaker**, IEEE International Conference on Advanced Learning Technologies, 31 Aug - 3 September 2004.
33. **Invited speaker**, International Meeting on e-learning, Tokyo Institute of Technology, 9-11 October, 2004.
34. **Keynote speaker**, IT in Education Conference, Hong Kong Education and Manpower Bureau, February 2006.
35. **Outstanding conference paper award**, for [Chen, W.L & Looi, C.K.], *Incorporating Online Discussion in Classroom Learning: A New Strategy*, Proceedings of the International Conference on Computers in Education (ICCE 2006), IOS Press.
36. **Keynote speaker**, Learning Sciences Innovations in Schools: Bridging Research to Practice, Global Chinese Conference on Computers in Education, Guangzhou, China, May 27-30, 2007.
37. **Keynote speaker**, Bridging Research to Practice in Technology-Mediated Learning: Innovations and Challenges in Singapore, International Conference on Computers in Education, Hiroshima, Japan, November 5-9, 2007.
38. **Outstanding conference paper award**, for Tan, N., Chen, W.L., Looi, C.K. et al (2007) *Handheld Computers as Cognitive Tools: An Environmental Learning Project in Singapore*. Paper presented at International Conference on Computers in Education, Hiroshima, Japan; in *Supporting Learning Flow Through Integrative Technologies* (ed. T. Hirashima, U. Hoppe & S-C Young), IOS Press, pp. 377-384.
39. **Invited speaker**, e-Learning Asia 2008, September 10-11, 2008.
40. **Invited speaker**, e-Learning Global Leaders Conference, September 10-11, 2008.
41. **Invited panel speaker**, SingTel iLuminate event, 24 September, 2008.
42. **Invited talk** at University of Hong Kong's Strategic Research Theme on Sciences of Learning Research Impacting Practices in Schools: Learning Sciences Perspectives from Singapore, 28 Sep 2009.

Publications

Book chapters

1. Wong, L.H., Looi, C.K., & Quek, H.C. (1996), *Issues in computerizing an inquiry dialogue*, in: C. Frasson, G. Gauthier, & A. Lesgold (Eds.), *Lecture Notes in Computer Science: Intelligent Tutoring Systems*, Berlin, Germany, Springer-Verlag, June 1996, 252-260.

2. Looi C.K. & B.T. Tan, 1996, *A Computer-Based Workbench for Teaching and Learning Word Problem-Solving*. Lecture Notes in Computer Science, Vol. 1108, 1996, pp.78-86.
3. Wong, L.H., Quek, H.C. & Looi C.K. (1997), *A Geography-Based Inquiry Tutor*, AI & Education, IOS Press, 1997.
4. Looi C.K. (2001), *Supporting Conversations and Learning in Online Chat*, Artificial Intelligence in Education, IOS Press, Ohmsha, pp. 142-153.
5. Looi, C.K. (2001), *Technologies for the Support of Online Communities of Learning*, Handbook on Information Technologies for Education & Training (editors: H.H. Adelsberger, B. Collis, J.M. Pawlowski)
6. Looi, C.K. & Hung, D. (2003), ICT-in-Education Policies and Implementation in Singapore and other Asian countries, *Upon What Does the Turtle Stand?* (editors: A. Aviram, J. Richardson-Deberghes)
7. Looi, C.K. (2002), *Computers for Learning in K-12 Education: Where are we and Where are we heading?*, New Educational Waves, April 1, 2002, pp. 43-48 (in Japanese).
8. Looi, C.K. (2003). e-Learning in K-12 Education: Where are we and Where are we heading?. In NA (Ed.), *Towards a digital learning society* (pp. 35-50). Taipei: YLib Publishing (in Chinese).
9. Looi, C.K. (2004), *Learning Inquiry and Structural Knowledge through Epistemic Games*, Cognitive Support for Learning - Imagining the Unknown (edited by Piet Kommers), IOS Press, pp. 73-79.
10. Hung, D, Bopry, J. & Looi, C.K. (2004), *Situated Cognition and Beyond: Martin Heidegger on Transformations in Being and Identity*. In Kincheloe, J.L. & Horn, R.A. (eds), *The Praeger Handbook of Education and Psychology*, Westport, Connecticut: Praeger Publishers, pp. 709-716.
11. Looi, C.K., Lim W.Y., Koh T.S. & Hung, D. (2006). Systemic Innovations and the Role of Change-Technology: Issues of Sustainability and Generalizability. In Leo Tan Wee Hin and R. Subramaniam (Ed.), *Literacy in Technology at the K-12 Level: Issues and Challenges* (pp. NA). Hershey: Idea Group Inc.
12. Looi, C.K., McCalla, G., Bredeweg, B. & Breuker, J. (2005) (editors), *Artificial Intelligence in Education: Supporting Learning through Intelligent and Socially Informed Technology*, IOS Press.
13. Looi, C.K., Jonassen, D. & Ikeda, M. (2005) (editors), *Towards Sustainable and Scalable Educational Innovations informed by the Learning Sciences*, IOS Press.
14. Looi, C.K., Hung, D. & Tan, S.C. (2006), Learning for Life in the 21st Century: Fostering Deep Learning Mediated by Technologies, in *Teaching with Technology: Strategies for Engaging Learners*, edited by Myint Swe Khine, Prentice Hall, pp. 323 - 341.
15. Looi, C.K., Lim, W.Y. and Chen, W. (2008), Communities of Practice for Continuing Professional Development in the 21st Century, *International Handbook of Information Technology in Education*, edited by Joke Voogt and Gerald Knezek.
16. Tan, S.C. & Looi, C.K. (2007), Supporting Collaboration in e-PBL in O.S. Tan (editor), *Problem-based Learning in E-learning Breakthroughs*, Singapore: Thomson Learning, pp. 185-206.
17. Chen, W.L & Looi, C.K. (2007), Incorporating Online Discussion in Classroom Learning: A New Strategy, Learning by Effective Utilization of Technologies: Facilitating InterCultural Understanding (edited by R. Mizoguchi, P. Dillenbourg & Z. Zhu), IOS Press, pp. 149-156.
18. Wee, J. D., & Looi, C. K. (In-press). A Model For Analyzing Math Knowledge Building in VMT. In Stahl, G. (Ed.), *Studying Virtual Math Teams* (pp. -). -: Springer-Verlag.
19. Wong, L.H., & Looi, C.K. (In-press). Online Discussion and E-Mentoring Strategies in Continuing Education Courses. In Ng, E.M.W. (Ed.), *Comparative Blended Learning Practices and Environments*. Hershey: IGI Global.

International Journal Papers (refereed)

1. Looi, C.K. 1990, *Automatic Program Debugging of Prolog Programs in a Prolog Intelligent Teaching System*, Journal of Instructional Science, Vol. 19, Nos 4/5, 1991.
2. Looi, C.K. et al 1990, *Prolog Programming Techniques*, Journal of Instructional Science, Vol. 19, Nos 4/5, 1991.
3. Looi, C.K. 1992, *Neural Network Methods in Combinatorial Optimization*, Computer and Operations Research Journal, Volume 19, No. 3/4, April/May 1992.

4. Wong, L.H., C. Quek & C.K. Looi, 1998, *TAP: A Software Architecture for an Inquiry Dialogue Based Tutoring System*, *IEEE Transactions in Systems, Man and Cybernetics*, May 1998, Volume 28, Number 3, pp. 315-325.
5. Looi, C.K. and Tan B.T. 1998, *A Cognitive Apprenticeship-Based Environment for Learning Word Problem Solving*, *Journal of Computers in Mathematics and Science Teaching*, Volume 17, No. 4.
6. Looi, C.K. 1999, *WOOs: Multimedia Collaborative Learning Environments That Support Different Learning Models*, *Journal of Educational Telecommunications*, Volume 5, No. 1.
7. Looi, C.K. 1998, *Interactive Learning Environments for Supporting Inquiry Learning*, *Journal of Educational Technology Systems*, Vol. 27(1), 3-22, 1998-99.
8. Wong, L.H., Quek, H.C., & Looi, C.K. 1998, *TAP-2: A framework for an inquiry dialogue based tutoring system*, *International Journal of Artificial Intelligence in Education (IJAIED)*, Volume 9, No.1-2, 88-110, 1998.
9. Chen, A.Y. & Looi, C.K., 1999, *Teaching, learning and inquiry strategies using computer technology*, *Journal of Computer Assisted Learning*, Blackwell Publishers, 1999, 15, pp.149-161.
10. Looi, C.K. & Ang, D. 2000, *SpaceALIVE!: A Multimedia Collaborative Learning Environment*, *Journal of Computer Assisted Learning* Blackwell Publishers, 2000, 17, pp. 2-13.
11. Looi, C.K., Cheng S.Y. & Ang, D. 1999, *Learning Conversations: When South-East Asian students WOO*, *WebNet Journal*, October-December, 1999, Vol. 1 No. 4, pp. 47-55.
12. Looi, C.K. 2000, *A Learning Ecology Metaphor for the Internet*, *Educational Technology Journal*, 40, 3, 56-60.
13. Looi, C.K. 2000, *IT programmes and policies in the Asia-Pacific region*, *Journal of Computer Assisted Learning*, Vol. 17, No. 1, March 2001, 1-3.
14. Looi, C.K. 2000, *Enhancing Learning Ecology on the Internet*, *Journal of Computer Assisted Learning*, Vol. 17, No. 1, March 2001, 13-20.
15. Looi, C.K., 2003, *Cultural Issues and the Design of e-Learning*, *International Journal of Information and Systems in Education*.
16. Looi, C.K. 2004, *Supporting Learning Conversations in Online Chat*, *International Journal of Learning Technologies*.
17. Hung, D, Looi, C.K. & Koh, T.S. 2004, *Situated Cognition and Communities of Practice: Differentiating between First-Person "Lived Experiences" and Third-Person Perspectives*, *Educational Technology & Society*, 7(4), pp. 193-200.
18. Hung, D. & Looi, C.K. 2004, *Learning Sciences and Instructional Science: Attempting a Structural Coupling in Singapore: A response to the special issue on the learning sciences and instructional systems*, *Educational Technology*, September-October 2004, Volume 44, No. 5, pp. 62-63.
19. Looi, C.K., Hung, D., Bopry J. & Koh, T.S. 2004, *Singapore's Learning Science Lab: Seeking Transformations in ICT-enabled Pedagogy*, *ET R&D International Review Section*, *ET R&D Journal*.
20. Looi, C.K. & Kinshuk, 2005, *Editorial: Crafting Learning in Context*. *Journal of Educational Technology & Society*, *International Forum of Educational Technology & Society*, October 2005, Volume 8 Number 4.
21. Looi, C.K., Hung, D. & Tan, L. W. H. 2005, *Facilitating inter-collaborations in the Learning Sciences*, *Educational Technology*, July-August 2005, pp. 41-44.
22. Looi, C.K., Hung, D. & Tan, L. W. H. 2006, *Linking learning sciences to teacher education: Teachers' beliefs, Professional Development, and Scalability issues*, *Educational Technology*, Volume XLVI, Number 3, May-June 2006, pp. 22-26.
23. Looi, C.K. & Hung, D. 2006, *Educational Technology Special Issue on the Learning Sciences - Capacity building, Critical areas, and Concerted impact*, *Educational Technology*, Volume XLVI, Number 3, May-June 2006, pp. 5-7.
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Research Interests:

Intelligent Educational Systems; Collaborative Learning; Mobile Learning; Technology-enabled Mathematics Learning; Learning Sciences; Sustainability and Scalability of Educational Innovations