Ian Douglas

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Main Areas of Expertise

Human Factors in technology, E-Learning, Simulation-Based Learning, Knowledge Management, Health Informatics, Software Engineering, User-Centered Design, Organizational Performance Improvement.

Education

Ph.D. Computing, Glasgow Caledonian University, UK.
Dissertation Title: *The integration of expert systems and simulation modeling in the construction of computer-based training systems.* 1996.

M.Sc. Computing and Cognition, University of Warwick, UK.
Dissertation Title: *Medical expert critiquing systems: a case study in the treatment of epilepsy.* 1985.

M.A. (hons), Psychology, University of Glasgow, UK. Honors Dissertation Title: *Experimenter effects in the conditioning of planaria.* 1984.

Experience

Executive Director. Institute for the Science of Learning and Teaching, Arizona State University.

I run a large research institute that in addition to funding four research labs provides services for teaching and learning research across ASU. See istl.asu.edu

Vice Provost, Innovative Learning and Academic Support Systems, Albany College of Pharmacy and Health Sciences, Albany, New York— 2012–2015

I was primarily responsible for improving the quality of education at the College. I was involved in reviewing educational technology, teaching methods, course evaluation and learning space design. I also managed the academic support services, which included instructional design services, library, writing center, tutoring services and the center for innovative learning. I initiated the Center for Innovative Learning, which has several projects developing the use of simulation in lab-based education. I was involved in moving more of the College's courses online and in the redesign of classrooms to support more interactive forms of learning.

Associate Program Director, Learning Systems Institute, Florida State University, Tallahassee — 1998-2012

The Learning Systems Institute (LSI) LSI is one of the USA's oldest, largest and most productive university-based education research organizations, and the only one that includes an emphasis on human performance. It applies multi-disciplinary, systems-based approaches to human learning and performance problems.

I was a senior faculty member of the institute for over 13 years and part of the leadership committee. In this role I successfully attracted funding of over six million dollars in research and development projects. I was also part of the team that implemented the use of distance learning at FSU in 1998. I was involved in reviewing research, instructional design methods and technology relevant to the implementation.

As the core faculty members of the Institute are in tenure-track positions, they must also have an appointment (with a 25% duty assignment) in a unit that conducts teaching. My teaching assignments were as follows:

> **Tenured Associate Professor**, College of Communications and Information — 2006-2012
> **Assistant Professor**, College of Information — 2004-2006
> **Assistant Professor**, Department of Computer Science — 1998-2004

Section Head, School of IT and Applied Science, Temasek Polytechnic, Singapore— 1996-1998

I arrived at Temasek Polytechnic when it was a brand new institution and had just moved into its new campus. I managed a small department and led the development and teaching of courses in internet computing, multimedia and human-computer interaction. I developed one of the first usability testing centers in South East Asia at the polytechnic, which was used to teach students on real projects sponsored by Motorola. My team also won an award for our interactive approaches to teaching and use of technology.

Senior Lecturer, Department of Computing, Glasgow Caledonian University, UK. — 1996-1998

I led a number of new program initiatives and managed an M.Sc Multimedia Computing program. I also led the Interactive Software Systems Group an R&D group for educational simulations.

Lecturer, Department of Computing, Glasgow Polytechnic, UK — 1988-1993

Tutor and Post-Graduate Supervisor (part-time), Open University, UK. — 1988-1995 Introduction to Computer Science Courses

Artificial Intelligence Consultant, Interactive Training Systems, Rediffusion Simulation Ltd., UK. —1986-1987

I worked to integrated artificial intelligence techniques into training simulators. I also scaled flight simulation technology to the newly emerged IBM personal computer.

Research Assistant, Biomedical Engineering Unit, School of Engineering and Applied Sciences, University of Sussex, UK. —1985-1986

Research on medical Artificial Intelligence applied to cardiology.

Visiting Positions

Visiting professor at the Department of Computer Science, Dalian Maritime University, China. October-November, 2009.

Visiting professor at the Department of Industrial Engineering, University of the Philippines, Diliman. August-September, 2009.

Visiting professor at the Russian Academy of Science's Informatics Institute. April, 1991.

I have also been funded as a consultant and to conduct presentations for the University of Koln (Germany, 2010), Challenger Center, Tallahassee (2010), Forssa Technical Institute (Finland, 1995, 1996), Instituto Politécnico do Porto Portugal, 1994 (funded by a European Community academic exchange program).

Research and Scholarly Activities

Grant Funding

Douglas, I. Co-PI (awarded August 2010- 2013) with Marty, P. Habitat Tracker: Digital Journals for Science Education in Wildlife Centers. National Institute of Education - $1,168,247.

Douglas, I. Co-PI (Feb, 2009 –Feb 2011) with Eccles, D and Ward, P. *Investigating the effect of appliance interface design on energy-use behavior*. State of Florida - $250,000.

Douglas, I. Co-PI with McLure, C. (Feb, 2009 –Feb 2010). *Development of a renewable energy research web portal*. State of Florida - $210,000.

Douglas, I. Principal Investigator (Sept 2003-Jan 2006). *Net-Centric Performance Improvement*. Army Research Office. Proposal to develop and test models for configurable enterprise software for knowledge management of organizational performance knowledge. Army Research Office - $2,600,000.

Douglas, I. Principal Investigator (Sept 2001-Sept 2003). *Automated Object-Oriented Performance Analysis*. Proposal to develop and test models for software support of human performance analysis. Army Research Office - $1,800,000.

Lou Van Wyk, Owen Gaede (PI) and Robert Morgan, Douglas, I. (Sept 2000-Sept-2001) *A collaboration to raise the percentage of disadvantaged students qualifying for university admission in South Africa*. Proposal to investigate problems and build support systems for K12 education in South Africa. USAID - $99,000.

Douglas, I. (1994). *Educational simulation research*. Internal development grant from Glasgow Caledonian University - $80,000.
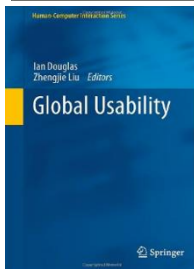
Douglas, I. (1993). *Scholarship to support the visit of an educational software developer from the former Soviet Union*. Nuffield Foundation, London - $8,000.

Douglas, I. (1986). *Student travel scholarship to investigate US education in artificial intelligence*. Economic and Social Research Council, UK government - $2000. Supported travel to visit Artificial Intelligence research centers at Carnegie Mellon, UC San Diego and Stanford.

Book Publication

Rod D. Roscoe, Scotty D. Craig, & Douglas I. (2017) End-User Considerations in Educational Technology Design.

Douglas, I. & Liu, Z. (2011). Global Usability. Springer.

Refereed Publications

1. Marty, P.F., Mendenhall, A., Douglas, I., Southerland, S., Sampson, V., Kazmer, M., Alemanne, N.D., Clark, & Schellinger, J. (2013). The iterative design of a mobile learning application to support scientific inquiry. *The Journal of Learning Design*, 6 (2), 41-66.

2. Marty, P. F., Alemanne, N. D., Mendenhall, A., Maurya, M., Southerland, S. A., Sampson, V., Douglas, I., Kazmer, M. M., Clark, A., Schellinger, J. (2013). Scientific inquiry, digital literacy, and mobile computing in informal learning environments. *Learning, Media and Technology*, 1–22.

3. Bias, R.G., Marty, P.F., & Douglas, I. (2012). Usability / User-centered design in the iSchools: Justifying a Teaching Philosophy. *Journal of Education for Library and Information Science,* 53 (4), 274-289.

4. Douglas, I. (2012). Medical Critiquing Systems. In R. Magdalena-Benedito, E. Soria-Olivas, J. Martínez, J. Gómez-Sanchis, & A. Serrano-López (Eds.), *Medical Applications of Intelligent Data Analysis: Research Advancements,* 209-222. Hershey, PA, Information Science Reference.

5. Douglas, I. (2012). Blitzkrieg education: finding a system for transforming education. *Proceedings of the 11th International Conference on Information Technology Based Higher Education and Training*, June 2012, Istanbul, Turkey, 21-23.

6. Marty, P.F., Douglas, I., Southerland, S.A., Sampson, V., Alemanne, N.D., Clark, A., Mendenhall, A., de la Paz, A., Yu, C. (2012). Habitat Tracker: learning about scientific inquiry through digital journaling in wildlife

centers. In *Proceedings of iConference*, February 7-10, 2012, Toronto, Ontario, Canada, 560-562.

7. Douglas, I., (2011). Organizational needs analysis and knowledge management. *Encyclopedia of Knowledge Management*, 2nd Edition, edited by David G. Swartz, Idea Group, 1290-1297.

8. Douglas, I., (2010). Rethinking portal design: a case study on renewable energy research. *The International ACM Conference on Management of Emergent Digital EcoSystems* (MEDES 2010). October 26-29, Bangkok, Thailand. 153-158.

9. Douglas, I., (2010). Improving the tracking of student participation and effort in online learning. *Learning Management System Technologies and Software Solutions for Online Teaching: Tools and Applications*, edited by Yefim Kats, IGI Global, 173-186.

10. Douglas, I., (2009). An object and performance framework for implementation of web-based knowledge sharing technology. *Journal of Theoretical and Applied Electronic Commerce Research*. 4 (1), 57-71.

11. Douglas, I., (2009). An ethnographic study of individual learning content management. *9th IFIP World Conference on Computers in Education* (WCCE 2009), Bento Gonçalves, Brazil, 100-105.

12. Douglas, I., (2009). Global mapping of usability labs and centers. Computer Human Interaction Conference, *ACM CHI conference*, April, Boston, MA, USA, pp. 4393-4398.

13. Schaffer, S. & Douglas, I., (2008). Integrating knowledge, performance and learning systems. Chpt 4.19 in M. Jennex (Ed.), *Knowledge management: concepts, methodologies, tools and applications*. Hershey, PA: Idea Group Reference, 1595-1604 (Reprint of 2006 article).

14. Douglas, I. (2008). Knowledge-based systems. *Handbook of Research on Educational Communications and Technology* (3rd ed.). Edited by J. M. Spector, M. D. Merrill, J. J. G. van Merriënboer, & M. P. Driscoll, 729-759.

15. Douglas, I. (2008). Adapting use cases for human performance modeling. *Handbook of Visual Languages for Instructional Design: Theories and Practices*. Edited by L. Botturi and T. Stubbs (Eds.) Hershey, PA: Information Science Research, 210-225.

16. Douglas, I. (2008). Measuring participation in Internet supported courses. *Proceedings of the International Conference on Computer Science and Software Engineering*, Volume: 5, 14-718.

17. Douglas, I. & Marty, P. (2008). Supporting school visits through mobile computing and interactive journaling. Proceedings of the *5th International Conference on Information Technology and Applications*, 490-494.

18. Douglas, I., Lim, D., & Tan, B. (2007). Beyond training: Human performance improvement in the age of network-centric warfare. *Pointer, Journal of the Singapore Armed Forces, 32*(2).

19. Douglas, I. (2007). Testing Object Management (TOM): A prototype for usability knowledge management in global software development. *Usability and Internationalization.* HCI and Culture. Lecture Notes in Computer Science, Heidelberg: Springer, 297-305.

20. Douglas I. & Alemanne, N.D. (2007). Monitoring student participation and effort. *Proceedings of the IADIS International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2007),* Algarve, Portugal, 299-302.

21. Douglas, I. (2007). Systems thinking and knowledge sharing technology. *Proceedings of the Collaborative Electronic Commerce Technology and Research Conference* (CollEcTeR Iberoamérica 2007), Córdoba, Argentina, 129-139.

22. Douglas I. & Alemanne, N.D. (2007). Monitoring participation in online courses. Proceedings of the 8th International Conference on Information Technology Based Higher Education and Training (ITHET 2007), Kumamoto, Japan, 315-320.

23. Sasson, J. & Douglas, I. (2006). A conceptual integration of performance analysis, knowledge management and technology: From concept to prototype. *The Journal of Knowledge Management*, 10(6), 81-99.

24. Douglas, I. (2006). Issues in software engineering of relevance to instructional design, *TechTrends, 50*(5), 28-35.

25. Schaffer, S.P. & Douglas, I., (2006). Integrating knowledge, performance and learning system: Merging component-based and collaborative design. *Encyclopedia of communities of practice in information and knowledge.* Edited by S. Clarke and E. Coakes, Hershey, PA: Idea Group.

26. Douglas, I. (2006). Collaborative international usability testing: moving from document based reporting to information object Sharing. *Proceedings of the IEEE International Conference on Global Software Engineering* (ICGSE'06), Florianópolis, Brazil, 114-118.

27. Malaxa, V. & Douglas, I. (2005). A framework for metadata creation tools. *Interdisciplinary Journal of Knowledge and Learning Objects*, *1*, 151-162.

28. Douglas, I. (2005). Supporting organizational e-learning. *Proceedings of the IEEE International Conference on e-Business Engineering* (ICEBE'05), Beijing, China, 360-363.

29. Douglas, I. (2005). Capturing and managing decision making rationale. *Proceedings of the IEEE International Conference on Information Reuse and Integration*, Las Vegas, NV, 172-177.

30. Schaffer, S.P. & Douglas, I. (2004). Performance support for performance analysis. *TechTrends*, *48*(2), 34-38.

31. Schaffer, S.P. & Douglas, I. (2004). Systems for integrating learning, performance and knowledge objects. *Quarterly Review of Distance Education*, *16*(4), 42-52.

32. Flowers, S. & Douglas, I., Brandt, P. (2004). Identifying design patterns for education and training. *Proceedings of the Inter-service/Industry Training, Simulation and Education Conference (I/ITSEC)*, Orlando, FL, 1653, 1-9.

33. Douglas, I., Wright, M., & Nowicki, C. (2004). Communicating performance knowledge among the services. *Proceedings of the Inter-service/Industry Training, Simulation and Education Conference (I/ITSEC)*. Orlando, FL, 1630, 1-10.

34. Douglas, I. (2004). Net-centric performance improvement. *Proceedings of the sixth International Conference on Information Integration and Web-based Applications and Services (iiWAS2004)*, Jakarta, Indonesia, 713-718.

35. Douglas, I. (2004). Founding enterprise systems on enterprise performance analysis. *Proceedings of the sixth International Conference on Enterprise Information Syst*ems, Porto, Portugal, 588-591.

36. Douglas, I. & Schaffer, S. (2004). An enterprise system for managing the support of organizational performance. Innovations through Information Technology. *Proceedings of the annual conference of the Information Resources Management Association* (IRMA), 119-128.

37. Douglas, I., Butler, J., Nowicki, C. & Schaffer, S. (2003). Web-based collaborative analysis, reuse and sharing of human performance knowledge. *Proceedings of the Inter-service/Industry Training, Simulation and Education Conference* (I/ITSEC). Orlando, FL, 1023-1030.

38. Douglas, I. (2003). Visualizing and sharing human performance analysis knowledge. *Proceedings of the IEEE 7th International Conference on Information Visualization IV03.* London, UK, 465-469.

39. Douglas, I. (2003). Using web services to provide a framework for knowledge analysis reuse and sharing. *Proceedings of the International Conference on Knowledge Engineering*, Las Vegas, NV, 331-336.

40. Douglas, I. (2003). Supporting education and training needs assessment through collaboration, reuse and sharing. *Proceedings of the 4th International Conference on Information Technology based Higher Education and Training*, Marrakech, 305-309.

41. Douglas, I. (2003). Supporting object-oriented analysis of human performance systems. *Proceedings of the International Conference on Systems Engineering, Modelling: Tools, UML track*. Annual conference of the International Council of Systems Engineering (INCOSE), Washington, DC, 560-567.

42. Douglas, I. & Schaffer, S. (2002). Object-oriented performance improvement. *Performance Improvement Quarterly*, journal of the International Society for Performance Improvement, *15*(3), 81-93.

43. Douglas, I. & Schaffer, S. (2002). Object-oriented performance analysis. *Proceedings of the Inter-service/Industry Training, Simulation and Education Conference (I/ITSEC),* Orlando, FL, 367-377.

44. Douglas, I. & Schaffer, S. (2002). A framework for object-oriented collaborative analysis. *Proceedings of the annual Conference of the Association for Educational Communications Technology*, Dallas, TX.

45. Douglas, I. (2001). Systems, tasks and perspectives: redefining the importance of technology in enhancing learning. Special Issue of the *International Journal of Continuing Engineering Education and Life-Long Learning* (IJCEELL, a UNESCO journal), 11(1/2), on the theme Internet-based learning and the future of education.

46. Douglas, I. (2001). Instructional design based on reusable learning objects: applying lessons of object-oriented software engineering to learning systems design. *IEEE Frontiers in Education conference*, Reno, Nevada, F4E, 1-5.

47. Douglas, I. (2000). A year in the life of a distance learning developer. *Proceedings of the 18th International Conference on Technology and Education*, South Africa, 86-89.

48. Douglas, I. (2000). A model for supporting component based course design. *Proceedings of the 18th International Conference on Technology and Education*, South Africa, 90-93.

49. Douglas, I. (1999). Learning object-oriented software design at a distance. *Proceedings of the IEEE Frontiers in Education conference*, San Juan, PR, November 12C, 24-27.

50. Graham, C., Douglas, I., & Yow H.K. (1998). Using interactive notes with web-based learning. *Proceedings of the International Conference on Computers in Education, ICCE '98, 1*, 118-124.

51. Douglas, I. (1995). Automating a tuition component in simulation based learning. *Temasek Journal*, Singapore, N5, 62-69.

52. Douglas, I., & Graham, C. (1997). Simulated interviewing for technical language learning. *Proceedings of the International Conference on Computers in Education*, ICCE '97, USA: Association for the Advancement of Computing in education (AACE), 469-476.

53. Douglas I., & Branki C. (1994). Intelligent agents in co-operative design and planning. In J. Liebowitz (Ed.). *Moving Towards Expert Systems Globally in the 21st Century*. 1st ed., Vol. 1. (*Proceedings of the Second World Congress on Expert Systems*, Lisbon). New York: Cognizant Communications Corporation, 41-45.

54. Douglas, I. (1994). The essence of multimedia. *Proceedings of Hypermedia '94*, Vassa, Finland, 22-26. **This was an invited keynote address**.

55. Douglas, I. (1993). Training on complex equipment using graphical simulations in a Hypermedia environment. *Proceedings of the Hypermedia '93*, Vassa, Finland, 71-77.

56. Douglas, I. (1993). Combining an expert system and a hypermedia system into a tutoring system. *Proceedings of the World Conference in Artificial Intelligence and Education*, Edinburgh.

57. Douglas, I. (1991). An object oriented graphical user interface for spatial data management. *Proceedings of the Human-Computer Interaction '91 Conference*, Moscow, 116-120.

58. Douglas, I. (1990). Critiquing expert systems as an enhancement to simulation based training. *Proceedings of the UK Simulation Congress*, Sussex, 143-146.

59. Douglas, I. (1986). The attitude of physicians to medical computing and medical expert systems. *Proceedings of the First International Conference on Artificial Intelligence and its Impacts in Biology and Medicine*, Montpellier, France, 102-114.

Invited Presentations

Connecting learning science with Learning engineering. Elevate Now to Next conference organized by the Valley of the Sun chapter of the Association for Talent Development. October 21st, 2016.

The importance of design science for improving education. 4th Annual Education and Technology Forum, Mayo Clinic Education Center, Phoenix, Arizona, January 27, 2016.

The psychology of changing an LMS, New England Canvas Users Group, Emmanuel College, Boston, MA, April, 2014.

The Internet changes everything—or does it? The HEALTH Symposium. Albany College of Pharmacy and Health Sciences, Albany, NY, April, 2013.

Habitat Tracker. Presentation for the TalTech Alliance, Tallahassee, February, 2011.

Ethnographic approaches to design, presentation to faculty and students of the School of Architecture and Design, King Mongkut's University of Technology Thonburi, Thailand, November, 2010.

Systems thinking and usability, presentation to faculty and students of the University of Malaysia, Sarawak. May 2010.

Interdisciplinary education, presentation to students and faculty at Dalian Maritime University, Dalian, China, November, 2009.

Opening keynote speaker for the 3rd Engineering Research and Development for Technology (ERDT) Conference on a postgraduate multidisciplinary approach to solving Philippine problems, October, 2009.

Main speaker for the "Industry symposium on user-centered design" held at the University of the Philippines, Diliman, October, 2009.

Workshop on knowledge management and systems thinking for the Philippines Industrial Engineering Society, Cebu Chapter, sponsored by Timex, October, 2009.

Annual engineering week lecture at the University of the Philippines, Diliman, Dec, 2008.

Workshop for masters and doctoral students at Dalian Maritime University, Dalian, China, July, 2007.

Net-Centric Management of Human Performance. Invited presentation to the American Institute of Aeronautics and Astronautics annual meeting, Sept, 2005.

Presentation to the Open University of the Netherlands, Educational Technology Expertise Centre (OTEC). July, 2005.

Knowledge Management of Organizational Learning. Presentation at the National Institute of Education, Singapore. Centre for Research in Pedagogy and Practice Seminar, Oct, 2004.

Knowledge Management in the Military. Presentation for the Future Systems Directorate, Singapore Armed Forces, Oct, 2004.

Identifying Design Patterns for Education and Training. US Coast Guard's human performance technology workshop, Yorktown, VA. Sept, 2004.

Performance Research. Department of Defence's Joint Performance Action Team. Institute for defense analysis, Alexandria, Va, Nov, 2003.

Making Performance Analysis Collaborative and Reusable. US Coast Guard's human performance technology workshop, Yorktown, VA. Sept, 2003.

Automated Object-Oriented Performance Analysis (AOOPA). Department of Defense's Advanced Distributed Learning initiative-SCORM Plugfest 6, Defense Acquisition University, Washington DC. July, 2002.

Human-Computer Interaction. Presentation for the Coastal Systems Station (CSS), US Navy, Panama City, Florida, July, 2002.

Learning Objects. Invited presentations to graduate students and faculty of department of Instructional Systems, FSU, April, 2002.

The Sharable Content Object Reference Model. Briefing for FSU Office of Distance and Distributed Learning, June, 2001.

Analysis and Design Issues of the Sharable Content Object Reference Model. Invited presentation to leaders of the department of defense's Advanced Distributed Learning project, during the Interservice/Industry Training, Simulation and Education Conference, Orlando, Nov, 2001.

Artificial Intelligence and Education. Presentation to graduate students and faculty of department of Instructional Systems, FSU, April, 1999.

Research in Distance Learning. Learning Systems Institute, FSU, Feb, 1999.

Development of Multimedia Technology and its Implications on Industrial Structure. Invited keynote address at the symposium on information technology and industrial revolution, Yogyakarta, Indonesia. Sponsored by the Asian Productivity Association, Sept, 1998.

Virtual Reality. Presentation for west of Scotland chapter of the British Computer Society, Sept, 1993.

Medical Artificial Intelligence. Computer Science department colloquium, New Mexico State University, Las Cruces, Nov, 1987.

Conference Presentations

Douglas, I., (2010). Incorporating human factors and systems thinking to organizational improvement. *The Southeast Asia Network of Ergonomics Societies Conference* (SEANES) Cebu City, Philippines, December.

Douglas, I. (2008). Global spread of usability expertise. *Euro American Conference on Telematics and Information Systems*. Aracaju, Brazil.

Douglas, I. (2006). Providing context for reuse. *International Plugfest*. A US Department of Defense Advanced Distributed Learning event.

Sasson, J. & Douglas, I. (2005). Net-centric performance improvement: A new way to promote collaboration and information reuse in performance analysis, solution implementation, and performance evaluation. I*SPI's 43rd Annual International Performance Improvement Conference*, Vancouver, April.

Douglas, I. & Butler, J. (2004). Using visual models for collaborative performance analysis. *ISPI's 42nd Annual International Performance Improvement Conference*, Tampa, April.

Douglas, I. (2003). Providing an IT framework for sharing knowledge. *International Military Testing Association (IMTA) annual conference*. Pensacola, FL.

Douglas, I. & Schaffer, S. (2002). Human performance support based on resuable objects: moving beyond e-learning. *Proceedings of the 20th International Conference on Technology and Education*. South Africa.

Douglas, I., & Schaffer, S. (2002). A methodological framework for object-oriented performance support. *3rd International Conference on Information Technology based Higher Education and Training*, Budapest, IEEE sponsored.

Douglas, I. (1999). Talking head videos: Using a task-based approach to enrich perspectives on knowledge. *17th International Conference on Technology and Education,* Tampa, October.

Douglas, I. (1994). Multimedia modeling of expensive equipment. *American Association of Interactive Multimedia (AAIM) conference on multimedia in training an education*, Charleston, SC.

Douglas, I. (1993). Creativity in software design. *1st UK Toolbook users conference*, Glasgow.

Selected other Writings and Reports

The Innovative Learning Blog - http://iandouglas.net/innovative-learning/

Research reports delivered as part of a project with the US Army (see under funded research):
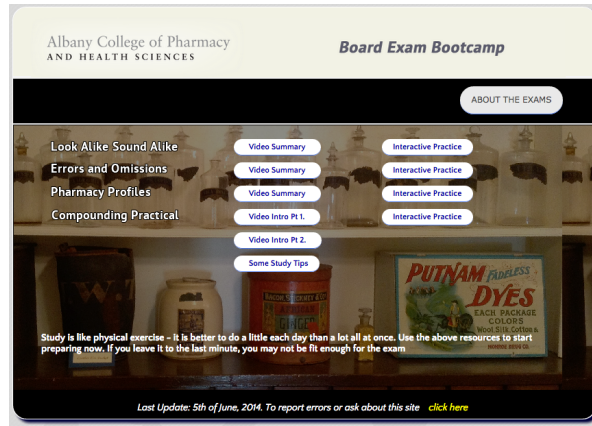
Software systems to support a framework for net-centric performance improvement, July, 2004.

A framework for net-centric performance improvement, Mar, 2004.

Final report on the automated object-oriented performance analysis research project. Aug, 2003.

Evaluation report on the automated object-oriented performance analysis research project, Aug, 2003.

Software systems to support a framework for object-oriented performance analysis, 2002.

Distance learning study guide and CD-ROM for course COP 3331, object-oriented analysis and design, 1999.

Douglas, I. (1997). Problems with computers in education. In "Focus" newsletter produced by the corporate and professional development department of Temasek Polytechnic.

Douglas, I. (1986). Problems in the construction of medical expert systems. Artificial Intelligence in Medicine Group Report AIMG-11. University of Sussex.

Web Application Design and Construction

Virtual Pharmacy. A web site that provides cases for student to practice patient questioning and select appropriate over-the-counter medications.

(2014-15)

Web site to prepare pharmacy students for their board exams: http://boardexams.acphs.edu/

(2012-15)

HabitatTracker – a database and associated web site and iPad app to support science education during field trips: http://tracker.cci.fsu.edu

Database of usability testing laboratories -- 2007-2012.

Energy Researcher Portal -- 2009-2012.

Oillspill expert finder -- 2010-2012.

Note: the above all relate to funded projects listed under grant funding.

Event Planning

Annual ASU Learning Innovation Showcase (2016,17,18)

https://istl.asu.edu/showcase2018

Teaching Experience

Honors and Awards

President's award for the most innovative use of technology in instruction. Florida State University, 2000.

> Awarded for the construction of one of the first distance learning courses at Florida State. A course that made use of interactive notes and video.

Annual innovation award by Temasek Polytechnic, 1998.

> Awarded for the construction of web supported courses with interactive notes as part of a move to stimulate thinking and problem solving within the curriculum.

Undergraduate Courses Developed and Taught

Use and Usability of Information Systems
Electronic Media Production
Object-Oriented Analysis and Design
Software Engineering
Human-Computer Interaction
Office Automation
Experimental Design and Statistics
Introduction to Programming
Web Software Development
Introduction to Computer Science

Graduate Courses Developed and Taught

Transdisciplinary Seminar in Education
Healthcare Informatics
Advanced Web Applications
Assessing Information Needs
Interactive Multimedia
Usability Analysis
Human-Computer Interaction
Design and Production of Networked Multimedia
Artificial Intelligence

Thesis

Member, 15 Master's Dissertation Committees.
Chair, 25 Master's Dissertation Committees.

Doctoral Committees as Member, 11.
Doctoral Committees as Director – one completed April, 2010.

Curriculum Development

Selected to participate in an NSF funded workshop on Digital Media Curriculum Development, June 2005.
At FSU member of new curriculum development committee for a B.Sc in Information Technology (Jan 05-07) and a B.Sc in Computer Science (Oct 98-May 2000).
Chaired new curriculum development committees in multimedia at Temasek Polytechnic (undergraduate) and Glasgow Caledonian University (graduate). Also participated in teams developing curriculum for Information Technology and Internet Computing degrees and diploma programs at both these institutions.

Professional Service

External Examiner

Appointed external tenure evaluator for University of Sharjah, United Arab Emirates, 2009.

Appointed external examiner for a doctoral defense at the University of Bergen, Norway, 2008.

External examiner for a master's thesis at the Massey University, New Zealand, May, 2007.

Appointed external examiner for Temasek Polytechnic, School of Information Technology, June, 2005-June 2007.

Journal

Editorial Board of the International Journal of Virtual Technology and Multimedia (IJVTM), 2006-2008.

Conference Organizing Committees

IADIS Virtual Multi Conference on Computer Science and Information Systems (MCCSIS 2005).

Local organizing committee for the International Conference on Technology and Education, held at FSU, 2-5th May, 2001.

Chair of the organizing committee of the first UK Multimedia Toolbook User's Conference, 1994.

Conference Program Committees

International Conference on Knowledge Management and Information Sharing (KMIS) - 2014-15.

International Conference on Computer Supported Education - 2013-15.

7th International Conference on Interactive Mobile and Computer Aided Learning - 2012.

Euro American Conference on Telematics and Information Systems (EATIS) - 2008-12.

IEEE International Conference on Advanced Learning Technologies (ICALT) - 2005-2012.

10th IEEE/ACIS International Conference on Computer and Information Science (ICIS) - 2011.

International Conference on Computer Supported Learning (CSEDU) - 2010-12.

Software Engineering Research, Management and Applications (SERA) - 2009.

Cognition and Exploratory Learning in the Digital Age (CELDA) - 2008-09.

Scientific committee of the IADIS conference on e-LEARNING - 2007.

The seventh International Conference on Information Integration and Web-based Applications and Services (iiWAS) - 2005.

IEEE computer society's Information Visualization conference - 2004-05.

International conference on Artificial Intelligence in Design, Paris - 1998.

Hypermedia 95 international conference, Sheffield, UK - 1995.

Other Conference Service

Session chair for the Southeast Asia Network of Ergonomics Societies Conferenc*e* (SEANES) conference (December, 2009).
Session chair for the Management of Emergent Digital EcoSystems (MEDES) conference (November, 2010).
Session chair for the Cognition and Exploratory Learning in the Digital Age (CELDA) conference (December, 2008).
Session chair for the IEEE International Conference on e-Business Engineering (October, 2005).
Session chair for the IEEE International Conference on Information Reuse and Integration (August, 2005).
Session chair for the sixth International Conference on Information Integration and Web-based Applications and Services (August, 04).
Session chair and day proceedings summarizer for the International Conference on Technology and Education, (May, 2002).

Reviewer

National Science Foundation
Ad-Hoc reviewer for "Developing Global Scientists and Engineers" (NSF 04-36), Oct/Nov, 2009.
Panel reviewer of computer science proposals submitted to the National Science Foundation's Information & Intelligent Systems (IIS), Human-Centered Computing Program, January, 2007.
Panel reviewer of computer science proposals submitted to the National Science Foundation's Course, Curriculum and Laboratory Improvement (CCLI) Program, July, 2001 and July, 2002.

Educational
Reviewer for FSU council for creativity and research, 2006-2007.
New curriculum external review for Diploma in IT at Temasek Polytechnic, Oct, 2004.
Reviewer for the FSU President's award for the most innovative use of technology in instruction, 2001.
External reviewer for course proposal in e-business at Glasgow Caledonian University, 1999.
Judge for annual web design competition held by the teacher-training center of Singapore, 1996.
External reviewer for a proposed M.Sc. Multimedia at London Guildhall University, 1995.

Books
Computer-Based Diagnostics and Systematic Analysis of Knowledge by Dr. Dirk Ifenthaler, Dr. Pablo Pirnay-Dummar, Dr. Norbert M. Seel. Chapter reviews for Springer, 2009.

Computer-Based Diagnostics and Systematic Analysis of Knowledge, book proposal review, for Springer, 2008.
Software Development in an Object-Oriented Domain, book proposal review, for Pearson, 2003.
Bruegge/Dutoit, Software Engineering / second edition manuscript review, for Pearson, 2002-2003.
Maurer, Component Level Programming, book proposal, for Pearson, 2002.
Bruegge/Dutoit, Software Engineering / first edition manuscript review, for Pearson, 2001.

Journals
Interactive Technology and Smart Education - 2013-2014.
Education for Library and Information Science (JELIS) - 2010.
Theoretical and Applied Electronic Commerce Research - 2007-10.
Engineering Education - 2005.

Conferences
IEEE International Conference on Advanced Learning Technologies (ICALT), 2005-12.
Australasian Computer-Human Interaction Conference (OzChi), 2008.
Cognition and Exploratory Learning in the Digital Age (CELDA), 2005-09.
IADIS Virtual Multi Conference on Computer Science and Information Systems (MCCSIS) 2005.
International Conference of the Information Resources Management Association, 2005.
International Conference on Computers in Education, 2005.
ACM Conference on Computer Science Education SIGCSE, 2003-2004.
ACM Symposium on Applied Computing, 2004.

Academic Committees

Albany College of Pharmacy and Health Sciences

Provost's Executive Committee, 2012-2015.
Educational Resources Committee, 2012-2015.
Provost's Technology Committee (chair), 2012-2015.

Florida State University

University Student Technology Fee Advisory Committee, (2010-12).
Council for Creativity and Research (2006).
Distance Learning Development Committee (1999-2003).
Served on selection committees for the Office of Distributed and Distance Learning and assisted in the recruiting of faculty members for department of geography and education, 1999-2007.

College of Information, Florida State University

Co-chair of the Undergraduate Programs Committee (2008-09).
Faculty Promotion and Tenure Committee (2007).
Undergraduate Programs Committee (2004-present).

Department of Educational Technology & Learning Systems, Florida State University

Outside member, Faculty Search Committees (2006 & 2007).

Department of Computer Science, Florida State University

Part of CS Distance Learning Implementation Team - 1999-2003.
Member, Network and Equipment Committee - 2002-2004.

Learning Systems Institute, Florida State University

Leadership Committee - 1999-2012.
Chair, LSI Recruitment Committee - 2003 & 2011.
Faculty Review Committee - 2008-2011.
LSI Innovation Park Management Committee - 2002-2006.
Managed the redevelopment of LSI's network infrastructure and research facilities at innovation park - 2001-2004.
Designed, equipped and installed a human factors lab in the new research facility at Innovation Park - 2003.