PEOPLE

ELLEN YI-LUEN DO, PH.D., ASSOCIATE AIA

PROFESSOR

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Overview

Research and Creative Activity

Teaching

Professor, College of Architecture & College of Computing (School of Interactive Computing)

Director of ACME Lab - A Creativity Machine Environment @ Georgia Tech

Director of Health Space Futures - Healthcare Environment of the Future

Core Faculty at Health System Institute Office @ HSI 210B (email for appointment)

Prior to joining Georgia Tech, Dr. Do was an Associate Professor at Carnegie Mellon University, where she co-directed the CoDe Lab (Computational Design Laboratory). Her research interests include Intelligent Systems and Objects, Design Computing and Cognition, Physical and Ubiquitous Computing, Intuitive Design Interfaces, Sketch Understanding, Diagram Indexing and Retrieval, Computationally Enhanced Construction Kits and Toys, Architectural Robotics, Ambient Intelligence and Smart Living Technologies.

Professor Do is committed to building better design tools, from understanding the human intelligence involved in the design process and leading to the improvement of the interface with

computers. Her research explores new modalities of communication, collaboration, and coordination, as well as the physical and virtual worlds that push the current boundaries of computing environments for design.

Professor Do has conducted empirical studies of design drawing and constructed computer software to support creative design and analysis. Her research work includes the development of freehand sketching, gesture and physical objects as an intuitive interface to knowledge based design systems, diagram indexing and retrieval to case-based systems, design cognition and creativity, visual analysis tools, 3D sketching for annotation and performance simulation,and the area of visual and spatial reasoning in education. These research efforts have been supported by NASA Space Grant, NSF IIS, CILT and CCLI.

She is a member of ACM, IEEE, ACADIA, and the AIA. She serves on the editorial board for the International Journal of Architectural Computing (IJAC, MultiScience) and Artificial Intelligence for Engineering Design, Analysis and Manufacturing (AIEDAM, Cambridge University Press).

To learn more about Ellen (CV, thesis, etc)... check out brief conf org bio

Click here for related conference deadlines... why peer review?

Click here if you are a graduate student.

Research Interests

A brief summary of research interests on Design Computing.

Publications

See the list of publications by year.

2011 Publications

Edited Volumes

- TEI '11- Proceedings of the Fifth International Conference on Tangible, Embedded, and Embodied Interaction (eds) Ellen Yi-Luen Do, Stephen Brewster, Ian Oakley, Funchal, Portugal, January 22 - 26, 2011, ACM, New York, (453 pages)

- TEI 2011 Work-in-Progress workshop proceedings at the 2011 Tangible, Embedded and Embodied Interaction in Madeira, Portugal (eds) Ellen Yi-Luen Do, Mark D Gross, Ian Oakley (204 pages), see pdf

Book Chapters

- Happy Healthy Home, Ellen Yi-Luen Do and Brian D Jones, chapter for The Handbook of Ambient Assistive Technologies for Healthcare, Rehabilitation and Well-being (in Press), J. Maitland (ed) IOS Press, Amsterdam, The Netherlands, IOS Press, see pre-print pdf

- Sketch that Scene for Me and Meet Me in Cyberspace Ellen Yi-Luen Do, in Collaborative Design in Virtual Environments (Chapter 11) pp. 121-130, edited by Xiangyu Wang and Jerry Jen-Huang Tsai, Springer ISBN: 978-94-007-0604-0, Springer Online, see pdf

Journal Paper

- The Role of Information and Computer Technology for Children with Autism Spectrum Disorder and the Facial Expression Wonderland (FEW), Rung-Yu Tseng and Ellen Yi-Luen Do, in IJCMAM - International Journal of Computational Models and Algorithms in Medicine 2 (2), 23-41, April-June 2011, (ed) Aryya Gangopadhyay, IGI Global, Hershey, PA, USA, DOI: 10.4018/jcmam.2011040102, see printer proof pdf

Refereed Conference Papers

- Computational clock drawing analysis for cognitive impairment screening, Hyungsin Kim, Young Suk Cho, Ellen Yi-Luen Do, in TEI '11 Proceedings of the fifth international conference on Tangible, embedded, and embodied interaction Pages: 297-300

doi>10.1145/1935701.1935768 (acceptance rate 32%, 65/203) ACM DL see printer proof pdf

○ Grocery hunter: a fun mobile game for children to combat obesity, Hyungsin Kim, Anya Kogan, Chandan Dasgupta, Michael Misha Novitzky, Ellen Yi-Luen Do, in TEI '11 Proceedings of the fifth international conference on Tangible, embedded, and embodied interaction Pages: 317-320 (acceptance rate 32%) doi>10.1145/1935701.1935775 or ACM DL see printer proof pdf

○ Hard to access the information in the healthcare system? I See! - an innovative touch-screen information board for pediatric hospitals, Rung-Yu Tseng, Kevin Chuang, Kristin Hermann, Jon Koehler, Ellen Yi-Luen Do, in 2011 IEEE International Conference on Pervasive Computing and Communicationsl Workshops (PERCOM Workshops), 21-25 March 2011, 376-379, Seattle, WA, USA IEEE Xplor doi>10.1109/percomw.2011.5766910 see printer proof pdf

○ Using Pen-Based Computing in Technology for Health, Hyunsgin Kim, Young Suk Cho, Ellen Yi-Luen Do, in Gesture-based interaction II, Tuesday, July 12, 16:00 -18:00, Orlando, in HCI International 2011, Volume 4, LNCS 6764, pp. 192-201. © Springer-Verlag Berlin Heidelberg (acceptance rate 38%) see printer proof pdf

○ DraWiing Together: Exploring Collaborative User Engagement in Art Exhibitions, Hyungsin Kim, Hyun Jean Lee, Ellen Yi-Luen Do, in User Experience in the Physical and Human Environment, Thursday, July 14, 16:00 -18:00 Orlando, in HCI International 2011, Volume 10, LNCS 6770, pp 142-151. © Springer-Verlag Berlin Heidelberg (acceptance rate 38%) see printer proof pdf

○ Tactile Hand Gesture Recognition through Haptic Feedback for Affective Online Communication, Hae Youn Joung, Ellen Yi-Luen Do, in Affective Technology through Affective Management, Wednesday, 13 July 2011: 13:30 – 15:30, Orlando, in HCI International 2011, Volume 6, LNCS 6766, 2011. pp. 555-563. DOI:10.1007/978-3-642-21663-3_60 © Springer-Verlag Berlin Heidelberg, (acceptance rate 38%) see printer proof pdf

○ mediRobbi: An Interactive Companion for Pediatric Patients During Hospital Visit, Szu-Chia Lu, Nicole Blackwell, and Ellen Yi-Luen Do, in Health and well-being applications, Tuesday, 12 July 2011: 08:00 – 10:00, Orlando, in HCI International 2011, Volume 2, LNCS 6762, 2011. pp. 547-556 DOI: 10.1007/978-3-642-21605-3_60 © Springer-Verlag Berlin Heidelberg, (acceptance rate 38%)see printer proof pdf

○ Sociable Tabletop Companions at "Dinner Party, Hye Yeon Nam, Ellen Yi-Luen Do, in Human-Computer Interaction Thematic Area, 9-14 July, Orlando, in HCI International 2011, C. Stephanidis (Ed.) Posters, Part I, HCII 2011, CCIS 173, pp. 459 – 463, 2011. DOI:10.1007/978-3-642-22098-2_92 © Springer-Verlag Berlin Heidelberg, (acceptance rate 38%, see printer proof pdf

○ Games for Health: Design Cognition-focused Interventions to Enhance Mental Activity, Hyungsin Kim, Viraj Sapre, Ellen Yi-Luen Do, in Human-Computer Interaction Thematic Area, 9-14 July, Orlando, in HCI International 2011, C. Stephanidis (Ed.) Posters, Part II, HCII 2011, CCIS 174, pp. 415-419, 2011. DOI:10.1007/978-3-642-22095-1_84 © Springer-Verlag Berlin Heidelberg 2011, (acceptance rate 38%)see printer proof pdf

○ Helping Hands versus ERSP Vision: Evaluating the effectiveness of two wearable object recognition technologies, Marc A. Lawson, Ellen Yi-Luen Do, James R. Marston, David A Ross, in Human-Computer Interaction Thematic Area, 9-14 July, Orlando, in HCI International 2011, C. Stephanidis (Ed.): Posters, Part I, HCII 2011, CCIS 173, pp. 383-388, 2011. DOI: 10.1007/978-3-642-22098-2_77 © Springer-Verlag Berlin Heidelberg 2011, (acceptance rate 38%) see printer proof pdf

○ Promoting Positive Employee Health Behavior with Mobile Technology Design, Hyungsin Kim, Hakkyun Kim, Ellen Yi-Luen Do, to appear in Volume 2, CCIS 174, p 420 -424 DOI: 10.1007/978-3-642-22095-1_85 © Springer-Verlag Berlin Heidelberg 2011, 9-14 July, Orlando, in HCI International 2011, (acceptance rate 38%) see printer proof pdf

News

○ Ellen in the News!

○ Best Paper Award - Wu, A., Joyner, D. and Do, E. Y., Move, Beam, and Check! Imagineering Tangible Optical Chess on An Interactive Tabletop Display, Dec. 2010, 10.1145/1902593.1902599

- Ellen is chairing the SBIM 2011 - jointly with CAE and NPAR (Aug 2011)

- Ellen helped organized (and chaired the program) a very successful ACM TEI 2011 conference in Madeira, Portugal (Jan 2011), edited the main conference proceedings in ACM Digital Library and edited the Work-in-Progress workshop proceedings

- Ellen delivered a keynote "Things that Think, Spaces that Sense and Places that Play" at the First International Conference on Intelligent Interactive Technologies and Multimedia Dec, 2010, Allahabad, India.

- Ellen delivered a keynote speech at the Symbiotic, Safe and Secure System Design – International Symposim on Biofied Buildings, Nov 26, at Keio University kenchiku_prog.pdf

- Ellen chaired the program for SBIM 2010, Sketch-based interfaces and modeling symposium.

- Ellen gave a keynote speech in Taiwan at the International Conference of Intelligent Quality Good Life hosted by National Taiwan University's Insight Center - Jan 19, 20, 2009. The keynote paper.

- Ellen and 4 students (Sherif, Hui, Atefe and Hugo) presented papers at the IASDR International Association of Societies of Design Research, 12-15 November 2008, in Hong Kong.

- Ellen delivered a keynote "Every Drawing Tells a Story" at the Spatial Cognition in Architectural Design Workshop held in Melbourne, Australia, 19, September 2007.

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Fall 2012

* ID 6763 A # 90629, also CS 8803 DG # 85541

- Design Games 12 & also DG 12 class blog

* ARCH 6271-CZ (90189), BMED 8813-HDF (89191, CS 8803 HEF (82850), HS 8803 (82850), ID 8900-HEF (89499)

- Healthcare Environment of the Future ER of the Future

Spring 2012

* COA 6763-ED (# 31521) / CS 6763 (# 31103), IE 8900-DE (# 3129), CoA 8833-ED (# 27220) .
CS 8803-HHH (# 28994)

- Computing Creativity and Design Cognition -12 - also CCDC 12 class blog

* ID 8900-DE (# 31529) / CoA 6763-ED (# 31521)/ CS 6763 (# 31103)

- Interaction Design for Home Innovation & also IDHI 12 class blog

Fall 2011

* COA 8843 ED # 85986, also CS 8803 DG # 87148

- Design Games 11 & also DG 11 class blog

* COA 8823-ED (# 85860) / HS 8803-A (# 83388) / CS 8803-HEF (# 90360)

- Healthcare Environment of the Future

Spring 2011

* COA 8843-ED #23716, ARCH 6509 # 30561, also CS 8803-CDC (#29344)

- Computing Creativity and Design Cognition -11 - also CCDC 11 class blog

* COA 8833-ED (# 27431) / CS 8803-HHH (# 29343)

- Happy Healthy Home 11 & also HHH 11 class blog

Fall 2010

* COA 8843 ED # 86160, also CS 8803 DG # 86364

- Design Games 10 & also DG 10 class blog

* COA 8823-DZ (# 86033) / HS 8803 (# 83484) / CS 8803-HEF (# 90909)

- ICU of the Future

Spring 2010

* CoA 8833-ED # 27652 / CS 8803-HHH # 29832

- Happy_Healthy_Home_10 & also HHH class blog

* CoA - 8843-ED # 23801/ CS-8803-CDC # 29833

- Creativity and Design Cognition 10 - & also CDC class blog

Fall 2009

* COA 8843 ED # 86317, also CS 8803 DG # 87561

- Design Games 09

* COA 8823-DZ (# 86182) / HS 8803 (# 83545) / CS 8803-ERF (# 87560)

- Onsite Health Center of theFuture

Spring 2009

* CoA 8833 # 28156 / CS 8803-D # 27398

- Happy Healthy Home - Ambient Intelligence and Innovation

* CoA - 8843 # 23894/ CS-8803-ED # 26757

- Creativity and Design Cognition 09

Fall 2008

* COA 8843 ED # 86538, also CS 8803 DG # 88003

- Design Games

* COA 8823-DZ # 86392, HSI 8803 # 83637, and CS 8803 ERF # 88002

- Emergency Room/Department of the Future

Spring 2008

* COA-8903 #27974/CS-8803-D #27975

- Wellness, Emotion, Sex and Technology

* COA-8843 #24077/CS-8803-ED #27384

- Creativity and Design Cognition 08

Fall 2007

* COA-8843/CS 8803-DCE #90201

- Design Computing and Everyware

* COA-8823-DZ/CS 8803

- Pediatric Center of the Future

Spring 2007

COA-8843/CS-8803-ED

- Creativity and Design Cognition

Fall 2006

COA-8803-ED, COA-8823-DZ, ARCH-8823-SK, CS-8803-ED

- Patient Room of the Future

COA-8843-ED

- Ambient Intelligence for Home Energy

Spring 2006

COA-8803/CS-8803-ED

- Visual Thinking and Spatial Reasoning