

Grace Ngai Curriculum Vitae

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EDUCATION

- 2001 **Johns Hopkins University, Baltimore, MD, USA**
PhD in Computer Science
- 1996 **Johns Hopkins University, Baltimore, MD, USA**
M.S.E. in Computer Science
- 1994 **Brown University, Providence, RI, USA**
Sc.B. (Honors) in Engineering

PROFESSIONAL APPOINTMENTS

- Sept—Dec 2014 **Swarthmore College, Swarthmore, PA, USA**
Visiting Associate Professor, Department of Computer Science
- 2010—current **Hong Kong Polytechnic University, Hong Kong**
Associate Professor, Department of Computing
- 2002—2010 **Hong Kong Polytechnic University, Hong Kong**
Assistant Professor, Department of Computing
- 2001—2002 **Weniwen Technologies, Hong Kong**
Senior Research Scientist

AWARDS AND HONORS

- 2016 UGC Teaching Award (General Category, Team leader), Hong Kong University Grants Council
- 2016 Best CHI papers Award (top 1% of all submitted papers): Michael Xuelin Huang, Tiffany C.K. Kwok, **Grace Ngai**, Stephen C.F. Chan, Hong Va Leong. “Building a Personalized, Auto-Calibrating Eye Tracker from User Interactions”. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (CHI '16).
- 2016 President’s Award for Excellent Performance/Achievement (Services - Team)
- 2015, 2008 Faculty Award in Services (Team), Hong Kong Polytechnic University
- 2010 Best CHI papers Honorable Mention Award (top 5% of all submitted papers): **Grace Ngai**, Stephen C.F. Chan, Vincent T.Y. Ng, Joey C.Y. Cheung, Sam S.S. Choy, Winnie W.Y. Lau and Jason T.P. Tse. “i*CATch: A Scalable, Plug-n- Play Wearable Computing Framework for Novices and Children”. In *Proceedings of the Twenty-Seventh Annual SIGCHI Conference on Human Factors in Computing Systems* (CHI 2010).
- 2010 President’s Award in Teaching (Individual), Hong Kong Polytechnic University
- 2009 Faculty Award in Teaching (Individual), Hong Kong Polytechnic University
- 2008 President’s Award in Services (Team), Hong Kong Polytechnic University
- 2008, 2005 Faculty Award in Teaching (Individual, Merit), Hong Kong Polytechnic University
- 2007 Faculty Award in Teaching (Team), Hong Kong Polytechnic University

TEACHING AND LEARNING

I am well prepared to teach in a broad range of courses in computer science and engineering. My teaching repertoire includes a variety of courses, ranging from technical fundamentals such as programming and data structures, to higher-level courses such as information retrieval, natural language processing and computer graphics, as well as more descriptive subjects such as human-computer interaction, and non-traditional courses such as service learning and the Freshman Seminar. My courses involve a diverse variety of students, ranging from undergraduate to subdegree higher diploma to graduate students. I have consistently achieved high student feedback scores for all of my subjects.

Courses Taught

Undergraduate

2011-17	Technology Beyond Borders: Service Learning Across Cultural, Ethnic and Community Lines
2011-13	Seminars and Topics in Information Technology
2015	From Scratch to Apps: Foundations of Computational Thinking and Literacy for Problem Solving
2014	Introduction to Computer Science (at Swarthmore College)
2014	Creative Digital Multimedia Design
2013	Whose Data is it Anyway? Information and Internet Ethics, Privacy and Security
2010-14	Service Learning Across Cultural, Ethnic and Community Lines
2003-10	Principles of Programming
2005-09	Human Factors and User Interfaces

Graduate

2011-17	Human Computer Interaction
2004	Natural Language Processing
2002, 2006	Computer Image Generation and Applications

Higher Diploma

2003-06	Multimedia and Multilingual Information Retrieval
2003	Introduction to Data Structures and Algorithms

Graduate Student Supervision

2016-	PhD Supervisor, Jun Wang
2015-	MPhil Supervisor, Tiffany C.K. Kwok
2014-	PhD Co-supervisor, Eugene Yujun Fu
2011-16	PhD Supervisor, Michael Xuelin Huang Thesis Title: A Framework for Personal Emotion Categorization and Attention Estimation
2012-17	PhD Supervisor, Jiajia Li Thesis Title: Understanding Human Comprehension and Attention in Reading
2012-15	MPhil Co-supervisor, Will Wai Wa Tang Thesis Title: An investigation into Crossmodal and Multimodal Human Computer Interaction: with a Focus on Handwriting to Music Generation
2010-13	MPhil Supervisor, Kenneth W.K. Lo Thesis Title: i*Chameleon: An MVC-based Middleware Framework for the Support of Multimodal Application Development
2008-10	MPhil Supervisor, Winnie W.Y. Lau Thesis Title: Exploring Children's Usage on Tangible Computational Construction Platforms: Hands-on Learning through Functionality, Crafts and Stories
2005-07	MPhil Supervisor, Chi-Shing Wang Thesis Title: A Hybrid Approach for Chinese Coreference Resolution

Supervised Student Awards

2014	Hong Kong ICT Awards: Best Digital Inclusion (Service Stream) Silver Award “A Mobile Learning Center: A Lab in a Suitcase on a TukTuk”
2011	Hong Kong PolyU Community Service Learning Programme Silver Award Cambodia IT Service Learning Tour
2010	Pan-Pearl River Delta Amway University IT Project Competition, Hong Kong Champion and Overall Gold Award i*Chameleon: A framework for Multimodal Interaction
2010	Hong Kong PolyU Community Service Learning Programme Bronze Award Cambodia IT Service Learning Tour
2009	Hong Kong PolyU Community Service Learning Programme Gold Award Gansu Orphanage Primary School Support and E-learning Project
2009	Hong Kong PolyU Community Service Learning Programme Bronze Award Refugee Children Support and Training Project
2008	Hong Kong PolyU Community Service Learning Programme Silver Award Gansu Orphanage Primary School Support and E-learning Project
2007	Hong Kong PolyU Community Service Learning Programme Silver Award Hubei IT Service Learning Tour

Competitive-based Funded Teaching Projects (Amounts are in HK\$ unless otherwise specified)

2017	Cross-institutional Capacity Building for Service-Learning in Hong Kong Higher Education Institutions, \$14,920,000 (PI) Hong Kong University Grants Committee, Funding Scheme for Teaching and Learning Related Proposals, 2016-19
2017	Accentuating the Positive Outcomes of Global Service-Learning through Collaborative Action Research, \$806,000 (co-I) University Learning and Teaching Committee
2016	Proposal for Communities of Practice in Service-Learning, \$250,000 (PI) Hong Kong Polytechnic University
2014	Overseas Scholarship Scheme – Study Focus: Service Learning, Assessment of Teaching and Learning (PI), \$60,000 Hong Kong University Grants Committee, Teaching Development Fund
2014	To Serve, To Share, To Teach, To Learn: A Collaborative Forum on Service Learning (co-I), \$573,000 Hong Kong University Grants Committee, Teaching Development Fund
2014-16	Institution-wide Evaluation and Enhancement of Credit-bearing Service Learning Subjects (co-I), \$1,620,000 Hong Kong Polytechnic University Teaching Development Fund
2010	A Set of iPhone and iPad-based Learning and Teaching Materials for Computing Education (PI), \$100,000 University Learning and Teaching Committee Grant
2010	Tangible Social Networking: A Novel Approach to Teaching Computing (co-I), \$100,000 Hong Kong Polytechnic University Learning and Teaching Committee Grant
2010	Sponsorship for the Cambodia I.T. Service Learning Tour (PI), \$70,400 Office of the Government Chief Information Officer (OGCIO)
2009	Sponsorship for the Gansu I.T. Service Learning Tour (PI), \$70,400 Office of the Government Chief Information Officer (OGCIO)
2008–10	RAPI: A Robotic eLearning Platform for Teaching Computing (co-PI), \$716,000 Hong Kong Polytechnic University Educational Development Committee Grant
2008	Sponsorship for the Gansu I.T. Service Learning Tour (PI), \$70,000 Office of the Government Chief Information Officer (OGCIO)
2008	Sponsorship for the Hubei I.T. Service Learning Tour (PI), \$70,400 Office of the Government Chief Information Officer (OGCIO)
2007	Sponsorship for the Hubei I.T. Service Learning Tour (PI), \$64,000

Office of the Government Chief Information Officer (OGCIO)

2006–07	PANDA: A Multi-User Platform for Teaching Computer Programming (PI), \$100,000 University Learning and Teaching Committee Grant
2005–06	A large-scale immersive educational game environment (Co-I), \$100,000 University Learning and Teaching Committee Grant
2005–06	Project-based Activities for First Year Students (PI), \$95,180

RESEARCH AND SCHOLARLY ACTIVITIES

My research interests are human-computer interaction, affective computing, educational computing and natural language processing.

Competitive-based Funded Projects (Amounts are in HK\$ unless otherwise specified)

2017-20	Cross-institutional Capacity Building for Service-Learning in Hong Kong Higher Education Institutions (PI), \$14,920,000 Hong Kong University Grants Committee Cross-institutional Teaching Development Projects
2017-18	Automatic Detection of Visual Attention and Cognitive Task Load in Real-Life Interactive Applications (PI) Rated 3.5 by Hong Kong Research Grants Council
2016-17	Modeling User Affect and Interaction with Stochastic Models (PI) Rated 3.5 by Hong Kong Research Grants Council
2016-18	An Adaptive, User-centered, Multi-Modal Approach to Identification of Human Affects in Spontaneous, Real-Use Conditions. (PI) \$150,000 Rated 3.5 by Hong Kong Research Grants Council, Funded by HK PolyU
2015-17	A Multi-modal Approach to Identifying Human Emotional and Cognitive Affects in Spontaneous, Real-use Conditions, (PI) \$150,000 Rated 3.5 by Hong Kong Research Grants Council, Funded by HK PolyU
2014-17	A scalable and modular framework for adaptive, multimodal, context-aware interaction (PI), \$645,500 (48 months) Hong Kong University Grants Committee, General Research Fund (GRF)
2012-15	An Integrated Framework for Composable, Physical Computing Systems Supporting Pervasive and Social Interactions (PI), \$681,195 Hong Kong University Grants Committee, General Research Fund (GRF)
2010-11	A Framework for a Personal, Interactive, Collaborative Wearable Platform (PI), \$105,000 Rated 3.5 by Hong Kong Research Grants Council, Funded by HK PolyU
2004-07	Resource-aware Semantic Structure Induction by Translingual Projection over Non-Parallel Data (PI), \$339,414 Hong Kong Research Grants Council (CERG)
2003-06	Combining Co-training and Active Learning for Resource-Aware Named-Entity Recognition (PI), \$200,000 Hong Kong Polytechnic University Internal Competitive Research Grant

LIST OF ALL PUBLICATIONS

Book Chapters

1. Y. Fu, H.V. Leong, **G. Ngai**, S.C.F. Chan. Non-Intrusive Health-Monitoring Devices. In M. Cruz-Cunha, I. Miranda, R. Martinho, & R. Rijo (Eds.) Encyclopedia of E-Health and Telemedicine (pp. 711-721). Hershey, PA: Medical Information Science Reference. doi:10.4018/978-1-4666-9978-6.ch055
2. **Grace Ngai**, Stephen C.F. Chan and Vincent T.Y. Ng. 2013. “i*CATch: A Child-Friendly Kit for E-Textile Prototyping”. Leah Buechley, Kylie Peppler, Michael Eisenberg and Yasmin Kafai, Textile Messages: Dispatches from the World of E-Textiles and Education. New York, NY:Peter Lang

Refereed Journal Articles

3. Yuanyuan WANG; Stephen Chi Fai Chan; Hong Va Leong; **Grace Ngai**; Norman Au. Multi-dimension reviewer credibility quantification across diverse travel communities. Knowledge and Information Systems (KAIS), (), pp.1-26 doi: 10.1007/s10115-016-0927-y
4. Michael Xuelin Huang, **Grace Ngai**, Kien A. Hua, Stephen C.F. Chan and Hong Va Leong. Identifying User-Specific Facial Affects from Spontaneous Expressions with Minimal Annotation. IEEE Transactions on Affective Computing, vol.PP, no.99, pp.1-1 doi: 10.1109/TAFFC.2015.2495222

5. Y. Fu, H.V. Leong, **G. Ngai**, M.X. Huang, S.C.F. Chan. Physiological mouse: Towards an emotion-aware mouse. *Universal Access in the Information Society: An International Journal*, Springer. doi:10.1007/s10209-016-0469-9
6. **Grace Ngai**, Stephen C.F. Chan, Hong Va Leong and Vincent T.Y. Ng. "Designing i*CATch: A Multipurpose, Education-friendly Construction Kit for Physical and Wearable Computing". *ACM Transactions on Computing Education*, Vol 13, Issue 2, Article 7 (June 2013), 30 pages.
7. Cane Leung, Stephen Chan, Fu-lai Chung and **Grace Ngai**. "A probabilistic rating inference framework for mining user preferences from reviews". *World Wide Web*, 14(2), pp. 187-215, 2011.
8. **Grace Ngai**, Stephen C.F. Chan, Joey C.Y. Cheung and Winnie W.Y. Lau. "Deploying a Wearable Computing Platform for Computing Education". *IEEE Transactions on Learning Technologies*, Special Issue on Mobile and Ubiquitous Technologies for Learning, pp. 45-55, January-March, 2010. (Spotlight Paper)
9. **Grace Ngai**, Winnie W.Y. Lau, Stephen C.F. Chan and Hong-va Leong. "On the Implementation of Self-Assessment in an Introductory Programming Course". *SIGCSE Bulletin*, 41, 4 (Jan. 2010), 85-89.
10. **Grace NGAI** and Chi-Shing Wang. "A Knowledge-based Approach for Unsupervised Chinese Coreference Resolution". *Computational Linguistics and Chinese Language Processing*, 12(4), pp459-484, December 2007.
11. Pascale Fung and **Grace Ngai**, "One Story One Flow: Hidden Markov Story Models for Multilingual Multi-document Summarization", *ACM Transactions on Speech and Language Processing*, 3(2), pp1-16, 2006.
12. Marine Carpuat, Pascale Fung and **Grace Ngai**, "Aligning Word Senses using Parallel Corpora", *ACM Transactions on Asian Language and Information Processing*, 5(2), pp89-120, 2006.
13. Yongjie Zheng, Alvin T.S. Chan and **Grace Ngai**, "MCL, A MobiGATE Coordination Language for Highly Adaptive and Reconfigurable Mobile Middleware", *Software Practice and Experience*, special issue on Auto-adaptive and Reconfigurable Systems, 36(11-12), pp1355-1380, 2006.
14. Yongjie Zheng, Alvin T.S. Chan and **Grace NGAI**. "Applying Coordination for Service Adaption in a Mobile Computing Environment". *IEEE Internet Computing*, 10(5), pp61-67, 2006.
15. Pascale Fung, **Grace Ngai**, Yongsheng Yang, and Benfeng Chen, "A Maximum Entropy Chinese Parser Augmented with Transformation-Based Learning", in *ACM Transactions on Asian Language Processing* 3(2), pp 159 – 168, June 2004.

Refereed Conference and Workshop Papers

16. Eugene Yujun Fu, Tiffany C.K. Kwok, Erin You Wu, Hong Va Leong, Grace Ngai and Stephen C.F. Chan. "Your Mouse Reveals Your Next Activity: Towards Predicting User Intention from Mouse Interaction". In 41st Annual IEEE Computer Software and Applications Conference (COMPSAC 2017), Torino, July 4-8 2017.
17. Michael Xuelin Huang, Jijia Li, Grace Ngai and Hong Va Leong. "ScreenGlint: Practical, In-situ Gaze Estimation on Smartphones" In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17). ACM, New York, NY, USA, 2546-2557. DOI: <https://doi.org/10.1145/3025453.3025794>
18. Fu, Eugene; Leong, Hong; Ngai, Grace; Chan, Stephen. "Automatic Fight Detection in Surveillance Videos" In Proceedings of the 14th International Conference on Advances in Mobile Computing and Multi Media (MoMM '16), Bessam Abdulrazak, Eric Pardede, Matthias Steinbauer, Ismail Khalil, and Gabriele Anderst-Kotsis (Eds.). ACM, New York, NY, USA, 225-234. DOI: <https://doi.org/10.1145/3007120.3007129> **Best Student Paper Award**
19. Lau, C. K., Lo, K. W. K., Chan, S. C. F., & Ngai, G. (2016). From Zero to One: Integrating Engineering and Non-Engineering Students in a Service-Learning Engineering Project. In The 2nd International Conference on Service-Learning. Hong Kong.
20. Lo, K. W. K., Chan, S. C. F., & Ngai, G. (2016). Using a Recycled Container to Setup a Community Learning Centre in Rural Cambodia – A Case Study. In 2016 IEEE Global Humanitarian Technology Conference (GHTC) (GHTC 2016). Seattle, USA.
21. Lo, K. W. K., Kwan, K. P., Chan, S. C. F., & Ngai, G. (2016). Cross-Cultural Validation of the Global Citizenship Scale for Measuring Impacts of International Service-Learning in Hong Kong Setting. In International Association for Research on Service-learning and Community Engagement. New Orleans, LA.

22. Ngai, Grace, Chan, Stephen C.F., Wong, W., Kwan, K.P. "A Multivariate Study of Factors Influencing Students' Learning Outcomes from Service-Learning". In International Association for Research on Service-learning and Community Engagement. New Orleans, LA.
23. Lo, K. W. K., Kwan, K. P., Ngai, G., & Chan, S. C. F. (2014). An Initial Exploration of the Cross-cultural Validity of the Global Citizenship Scale in the Hong Kong Setting. In 1st International Conference on Service-Learning (pp. 126–131). Hong Kong.
24. Michael Xuelin Huang, Jiajia Li, Grace Ngai, Hong Va Leong. StressClick: Sensing Stress from Gaze-Click Patterns. In Proceedings of the 24th ACM on Multimedia Conference (MM'16). ACM, New York, NY, USA, 1395-1404. DOI: <http://dx.doi.org/10.1145/2964284.2964318>
25. Jiajia Li, **Grace Ngai**, Hong Va Leong and Stephen C.F. Chan. Your Eye Tells How Well You Comprehend. In 40th Annual IEEE Computer Software and Applications Conference (COMPSAC 2016).
26. Michael Xuelin Huang, Tiffany C.K. Kwok, **Grace Ngai**, Stephen C.F. Chan, Hong Va Leong. Building a Personalized, Auto-Calibrating Eye Tracker from User Interactions. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16). ACM, New York, NY, USA, 5169-5179. DOI: <http://dx.doi.org/10.1145/2858036.2858404>. **CHI Best Paper Award**.
27. Jiajia Li, **Grace Ngai**, Hong Va Leong, and Stephen Chan. 2016. Multimodal human attention detection for reading. In Proceedings of the 31st Annual ACM Symposium on Applied Computing (SAC '16). ACM, New York, NY, USA, 187-192. DOI:<http://dx.doi.org/10.1145/2851613.2851681>
28. Tiffany Kwok, **Grace Ngai**, Chi-wai Do, Hong Va Leong, Democratizing Optometric Care: A Vision-Based, Data-Driven Approach to Automatic Refractive Error Measurement for Vision Screening. In Proceedings of the IEEE International Symposium on Multimedia (IEEE ISM 2015), November 2015
29. Yujun Fu, Hong Va Leong, **Grace Ngai**, Stephen Chan. Automatic Fight Detection Based on Motion Analysis. In Proceedings of the IEEE International Symposium on Multimedia (IEEE ISM 2015), November 2015
30. H.V. Leong, A.T.S. Chan, **G. Ngai**. Approximate Web Database Snapshot. In Proceedings of 39th IEEE International Computer Software and Applications Conference, pages 367-376, July 2015.
31. Tiffany C.K. Kwok, Michael X. Huang, Wai Cheong Tam and **Grace Ngai**. "Emotar: Communicating Feelings through Video Sharing". Proceedings of the 20th International Conference on Intelligent User Interfaces (IUI '15), ACM, New York, NY, USA, 374-378.
32. **Grace Ngai**, Stephen C.F. Chan. "How much impact can be made in a week?: Designing Effective International Service Learning Projects for Computing". Proceedings of the 46th ACM Technical Symposium on Computer Science Education (SIGCSE'15). Kansas City, MO
33. Jiajia Li, **Grace Ngai**, Stephen C.F. Chan, Kien A. Hua, Hong Va Leong and Alvin Chan. "From Writing to Painting: A Kinect-Based Cross-Modal Chinese Painting Generation System". 22nd ACM International Conference on Multimedia (ACMMM 2014). Orlando, Florida.
34. Michael Xuelin Huang, Tiffany C.K. Kwok, **Grace Ngai**, Hong Va Leong, Stephen C.F. Chan. "Building a Self-Learning Eye Gaze Model from User Interaction Data". 2nd ACM International Conference on Multimedia (ACMMM 2014). Orlando, Florida.
35. Yujun Fu, Michael Xuelin Huang, Hong Va Leong, **Grace Ngai**, Stephen C.F. Chan. "Physiological Mouse: Towards an Emotion-Aware Mouse". 1st IEEE International Workshop on User Centered Design and Adaptive Systems (UCDAS 2014). Vasteras, Sweden
36. Will W.W. Tang, Hong Va Leong, **Grace Ngai**, Stephen C.F. Chan. "Detecting Handwriting Errors with Visual Feedback in Early Childhood for Chinese Characters". In Proceedings of the 2014 conference on Interaction design and children (IDC '14). ACM, New York, NY, USA, 273-276. DOI=10.1145/2593968.2610470 <http://doi.acm.org/10.1145/2593968.2610470>
37. Hugo Jiawei Sun, Michael Xuelin Huang, **Grace Ngai**, Stephen C.F. Chan. "Nonintrusive Multimodal Attention Detection". In ACHI 2014, The Seventh International Conference on Advances in Computer-Human Interactions. IARIA, Barcelona, March 23-27, 192-199
38. Yuanyuan Wang, Stephen Chi Fai Chan, **Grace Ngai**, Hong-Va Leong. "Quantifying Reviewer Credibility in Online Tourism". 24th International Conference on Database and Expert Systems Applications (DEXA '13). Prague, August 26-29, 2013.
39. **Grace Ngai**, Stephen C.F. Chan, Kam Por Kwan and Josephine M. Csete. "Enhancing students' sense of civic responsibility and global citizenship through service-learning". International Conference on Enhancement and Innovation in Higher Education. Glasgow, June 11-13, 2013

40. Stephen C.F. Chan, **Grace Ngai**, Walter Yuen and Kam Por Kwan. "Institutional Strategies to Educate Professionals for Social Responsibility through Service-Learning". International Conference on Enhancement and Innovation in Higher Education. Glasgow, June 11-13, 2013
41. Will W.W. Tang, Stephen C.F. Chan, **Grace Ngai** and Hong Va Leong. 2013. "Computer Assisted Melo-rhythmic Generation of Traditional Chinese Music from Ink Brush Calligraphy". In International Conference on New Interfaces for Musical Expression (NIME '13). ACM, Daejong-Seoul, Korea.
42. Kenneth W.K. Lo, Chi Kin Lau, Michael Xuelin Huang, Wai Wa Tang, **Grace Ngai** and Stephen C.F. Chan. 2013. "Mobile DJ: a Tangible, Mobile Platform for Active, Collaborative Music Listening". In International Conference on New Interfaces for Musical Expression (NIME '13). ACM, Daejong-Seoul, Korea.
43. **Grace Ngai**, Stephen C.F. Chan, Kam Por Kwan and Josephine Csete. 2013. "Enhancing students' sense of civic responsibility and global citizenship through service-learning". In International Conference on Enhancement and Innovation in Higher Education. Glasgow, UK: June 2013.
44. Stephen C.F. Chan, **Grace Ngai**, Walter Yuen and Kam Por Kwan. 2013. "Institutional Strategies to Educate Professionals for Social Responsibility through Service-Learning". In International Conference on Enhancement and Innovation in Higher Education, Glasgow, UK: June 2013.
45. Michael Xuelin Huang, Will Tang, Kenneth W.K. Lo, C.K. Lau, **Grace Ngai**, and Stephen Chan. 2012. "MelodicBrush: a cross-modal link between ancient and digital art forms". In Proceedings of the 2012 ACM annual conference extended abstracts on Human Factors in Computing Systems Extended Abstracts (CHI EA '12). ACM, New York, NY, USA, 995-998.
46. Michael Xuelin Huang, Will W. W. Tang, Kenneth W. K. Lo, C. K. Lau, **Grace Ngai**, and Stephen Chan. 2012. "MelodicBrush: a novel system for cross-modal digital art creation linking calligraphy and music". In Proceedings of the Designing Interactive Systems Conference (DIS '12). ACM, New York, NY, USA, 418-427.
47. Lo, K.W.K.; Tang, W.W.; Leong, H.V.; Chan, A.; Chan, S.; **Ngai, G.**; , "i*Chameleon: A unified web service framework for integrating multimodal interaction devices," Pervasive Computing and Communications Workshops (PERCOM Workshops), 2012 IEEE International Conference on, pp.106-111, 19-23 March 2012
48. Yuanyuan Wang, Stephen Chan, and **Grace Ngai**. "Applicability of Demographic Recommender System to Tourist Attractions: A Case Study on TripAdvisor". International Workshop on Tourism Facilities 2012 (TF'12), The 2012 IEEE/WIC/ACM International Conference on Web Intelligence. Macau, Dec, 2012.
49. Kenneth W.K. Lo, Will W.W. Tang, **Grace Ngai**, Stephen C.F. Chan, Alvin T.S. Chan, Hong-va Leong, "i*Chameleon: A Scalable and Extensible Framework for Multimodal Interaction" In CHI '11 Extended Abstracts on Human Factors in Computing Systems (CHI 2011). Vancouver, Canada: May 2011
50. **Grace Ngai**, Stephen C.F. Chan, Vincent T.Y. Ng, Joey C.Y. Cheung, Sam S.S. Choy, Winnie W.Y. Lau and Jason T.P. Tse. "i*CATCH: A Scalable, Plug-n-Play Wearable Computing Framework for Novices and Children". In Proceedings of the Twenty-Seventh Annual SIGCHI Conference on Human Factors in Computing Systems (CHI 2010). Atlanta, GE: April 2010. **Best CHI Papers Honorable Mention Award.**
51. **Grace Ngai**, Stephen C.F. Chan, Joey C.Y. Cheung and Winnie W.Y. Lau. "The TeeBoard: an Education-Friendly Construction Platform for E-Textiles and Wearable Computing". In Proceedings of the Twenty-Sixth Annual SIGCHI Conference on Human Factors in Computing Systems (CHI 2009). Boston, USA: April 2009
52. **Grace Ngai**, Stephen C.F. Chan, Joey C.Y. Cheung and Winnie W.Y. Lau. "An education-friendly construction platform for wearable computing". In CHI '09 Extended Abstracts on Human Factors in Computing Systems (CHI 2009). Boston, USA: April 2009
53. Joey C.Y. Cheung, **Grace Ngai**, Stephen C.F. Chan and Winnie W.Y. Lau. "Filling the Gap in Programming Instruction: A Text-enhanced Graphical Programming Environment for Junior High Students", Proceedings of the 40th ACM technical symposium on Computer Science Education (SIGCSE 2009). Chattanooga, USA: Mar 2009, pp 276-280.
54. Winnie W.Y. Lau, **Grace Ngai**, Stephen C.F. Chan and Joey C.Y. Cheung. "Learning Programming through Fashion and Design: A Pilot Summer Course in Wearable Computing for Middle School

- Students”, Proceedings of the 40th ACM technical symposium on Computer Science Education (SIGCSE 2009). Chattanooga, USA: Mar 2009, pp 504-508.
55. Vincent Ng, Stephen Chan, **Grace Ngai**, Alice Lam. “Designing a Collaborative Tool for Supporting Multi-module Student Projects”, Global Chinese Conference on Computers in Education (GCCCE), Lansing, Michigan: May 2008.
 56. **Grace Ngai**, Mak Yin Chun, Stephen C.F. Chan and Vincent T.Y. Ng. “Toys in learning: Robots in a Large Introductory Programming Course at University Level”, 2nd International Conference of E-Learning and Games. Hong Kong: June 2007
 57. **Grace NGAI** and Chi-Shing WANG. “A Clustering Approach for Unsupervised Chinese Coreference Resolution”. 5th SIGHAN Workshop on Chinese Language Processing. COLING/ACL Workshop. Sydney: July 2006, pp 40-47
 58. **Grace Ngai**, Stephen C.F. Chan and Vincent T.Y. Ng. “Becoming fluent in Java (or any computer language): Overlearning and Active Learning in Introductory Computer Science Learning”. Asia-Pacific Education Research Association Conference 2006. Hong Kong: November 2006
 59. Stephen C.F. Chan, Vincent T.Y. Ng and **Grace Ngai**. “A Framework for Service Learning in Professional Disciplines”. Asia-Pacific Education Research Association Conference 2006. Hong Kong: November 2006
 60. Stephen C.F. Chan, Vincent T.Y. Ng, **Grace Ngai** and Cane W.K. Leung. “Service Learning – Information Technology Education through Community Service”. IADIS International Conference e-Society 2006. Dublin: July 2006
 61. Dekai Wu, **Grace Ngai**, and Marine Carpuat. “Why Nitpicking Works: Evidence for Occam’s Razor in Error Correctors”. 20th International Conference on Computational Linguistics (COLING-2004), Geneva: Aug 2004.
 62. **Grace Ngai**, Dekai Wu, Marine Carpuat, Chi-Shing Wang, and Chi-Yung Wang. “Semantic Role Labeling with Boosting, SVMs, Maximum Entropy, SNOW, and Decision Lists”. Third International Workshop on the Evaluation of Systems for the Semantic Analysis of Text (Senseval-3) (ACL-2004 Workshop), Barcelona: Jul 2004.
 63. Richard Wicentowski, **Grace Ngai**, Dekai Wu, Marine Carpuat, Emily Thomforde, and Adrian Packel. “Joining forces to resolve lexical ambiguity: East meets West in Barcelona”. Third International Workshop on the Evaluation of Systems for the Semantic Analysis of Text (Senseval-3) (ACL-2004 Workshop), Barcelona: Jul 2004.
 64. Dekai Wu, **Grace Ngai**, and Marine Carpuat. “Raising the Bar: Stacked Conservative Error Correction Beyond Boosting”. Fourth International Conference on Language Resources and Evaluation (LREC-2004), Lisbon: May 2004.
 65. Dekai Wu, **Grace Ngai**, and Marine Carpuat. “N-fold Templated Piped Correction”. First International Joint Conference on Natural Language Processing (IJCNLP-2004), Hainan, China: Mar 2004.
 66. Pascale Fung, **Grace Ngai** and Chi-Shun Cheung, “Combining Optimal Clustering and Hidden Markov Models for Extractive Summarization”, Workshop on Multilingual Summarization and Question Answering (ACL-2003 Workshop), Sapporo, July 2003
 67. Dekai Wu, **Grace Ngai**, and Marine Carpuat. “A stacked, voted, stacked model for named entity recognition”. Computational Natural Language Learning (CoNLL-2003), at Human Language Technology Conference of the North American Chapter of the Association of Computational Linguistics (HLT/NAACL-2003). Edmonton, Canada: May 2003.
 68. **Grace Ngai**, Marine Carpuat and Pascale Fung, “Identifying Concepts Across Languages: A First Step towards a Corpus-based Approach to Automatic Ontology Alignment”. In Proceedings of COLING-02, Taipei, Taiwan: Aug 2002
 69. Dekai Wu, **Grace Ngai**, Marine Carpuat, Jeppe Larsen, and Yongsheng Yang. “Boosting for named entity recognition”. Computational Natural Language Learning (CoNLL2002), at 19th International Conference on Computational Linguistics (Coling-2002), 195-198. Taipei: Sep 2002.
 70. Marine Carpuat, **Grace Ngai**, Pascale Fung and Ken W. Church, “Creating a Bilingual Ontology: A Corpus-Based Approach for Aligning WordNet and HowNet”, In Proceedings of the 1st Global WordNet Conference, pp. 284–292, Mysore, India, 2002.
 71. **Grace Ngai** and Radu Florian, “Transformation-Based Learning in the Fast Lane”, In Proceedings of the Second Conference of the North American Chapter of the Association for Computational Linguistics, (ISBN: 1-55860-788-9), pp. 40–47, 2001.

72. David Yarowsky and **Grace Ngai**, “Inducing Multilingual POS Taggers and NP Bracketers via Robust Projection across Aligned Corpora”, In Proceedings of the Second Conference of the North American Chapter of the Association for Computational Linguistics (ISBN: 1-55860-788-9), pp. 200–207, 2001.
73. David Yarowsky, **Grace Ngai** and Richard Wicentowski. “Inducing Multilingual Text Analysis Tools via Robust Projection across Aligned Corpora.” In Proceedings of HLT 2001, First International Conference on Human Language Technology Research (ISBN: 1-55860-786-2), pp. 161–168, 2001
74. Radu Florian and **Grace Ngai**, “Multidimensional Transformation-Based Learning”, In Proceedings of the Fifth Conference on Natural Language Learning, pp. 1–6, 2001
75. **Grace Ngai** and David Yarowsky, “Rule Writing or Annotation: Cost-efficient Resource Usage for Base Noun Phrase Chunking”, In Proceedings of the 38th Meeting of the Association for Computational Linguistics (ISBN: 1-55860-731-5), pp. 117-125, 2000
76. Radu Florian, John Henderson and **Grace Ngai**, “Coaxing Confidence from an Old Friend: Probabilistic Classifications from Transformation Rule Lists”, In EMNLP-2000, pp. 26–34, Hong Kong, 2000.
77. Eric Brill, John Henderson and **Grace Ngai**, “Automatic Grammar Induction: Combining, Reducing and Doing Nothing”, International Workshop on Parsing Technology, 2000
78. Eric Brill and **Grace Ngai**, “Man [and Woman] vs. Machine: A Case Study in Base Noun Phrase Learning”, In Proceedings of the 37th Meeting of the Association for Computational Linguistics (ISBN: 1-55860-609-2), pp. 65–72, 1999
79. Eugene Santos Jr., Scott M. Brown, Moises Lejter, **Grace Ngai**, Sheila B. Banks and Martin R. Stytz, “Dynamic User Model Construction with Bayesian Networks for Intelligent Information Queries”, In Proceedings of the 11th International FLAIRS Conference, pp. 3–7, Orlando, FL, 1999.

INVITED TALKS

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| 2017 | “Learning to Serve, Serving to Learn”, Seminar for Academic Staff at Baptist University, March 8 2017 |
| 2016 | “Learning to Serve, Serving to Learn”, Seminar for Academic Staff at Lingnan University, Nov 8 2017 |
| 2016 | “Teaching to Learn, Learning to Teach”, Seminar for academic staff at the School of Hotel and Tourism Management, Hong Kong Polytechnic University, 16 Dec 2016 |
| 2016 | “Balancing Learning and Impact in Service Learning”, Seminar for academic staff and students, California State Polytechnic, San Luis Obispo, CA, USA, 6 May 2016 |
| 2016 | “Appropriate Technology at Long Distance and in the Short Term”, Lecture for academic staff and students, University of California at Santa Barbara (UCSB), Santa Barbara, CA, USA, 5 May 2016 |
| 2015 | “Making the Most Impact with International Service-Learning”, Faculty Engagement and Service-Learning Symposium, Lingnan University, Hong Kong, 27 Oct 2015 |
| 2015 | <i>Service-Learning Case Study: Technology Beyond Borders</i> , with Dr. Stephen Chan, seminar for academic staff, International University of Central Asia (IUCA), Tokmok, Kyrgyzstan, 17th August 2015. |
| 2014 | <i>Service Learning as an Academic, Grade-bearing, Credit-bearing Requirement</i> , staff workshop at the University of Maryland College Park, 15 December 2014. |
| 2014 | <i>Service-Learning as a Requirement: Implementation and Pedagogy</i> with Dr. Stephen Chan, seminar at Purdue University, West Lafayette, Indiana, USA, 30 October, 2014 |
| 2014 | <i>Social Responsibility through Service-Learning</i> , with Dr. Stephen Chan, staff workshop, University of Macau, 7 May 2014. |
| 2014 | <i>Technology-based Service-Learning @ HKPolyU</i> with Dr. Stephen Chan, BME-UST Simple Technology Big Difference Seminar Series, HK University of Science and Technology, 19th February, 2014. |
| 2014 | <i>Overview of Service-Learning @ HKPolyU</i> , with Dr. Stephen Chan, Higher Education Leadership Program (HELP) - Myanmar: Teaching, Research, and Community Service, Yangon, Myanmar, 5-7 February 2014. |

2014

Deeply Satisfying and Personally Challenging, Symposium for academic staff cum
Presentation of Outstanding Teaching Development Projects Awards. 5 May 2011

PROFESSIONAL ACTIVITIES

Editorship

- 2017- Associate Editor, IEEE Transactions on Affective Computing (TAFFC)
2017-18 Editorial Board, Journal of Higher Education Outreach and Engagement (JHEOE)
2016 Guest Editor, Special Issue on Service Learning in the Asian Context, Journal of Higher Education Outreach and Engagement
2006-08 Editorial Board, Computational Linguistics Journal
2017-18 Distinguished reviewer, ACM Transactions on Intelligent Interactive Systems (TiIS)

Conference/Workshop Committees

- 2017, 18 Area Chair, "Understanding People: Theory, Concepts, Methods" subcommittee, CHI 2017, 2018
2017 Area Chair, "Technologies and Applications" subcommittee, 12th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2017)
2016 Technical Program Co-Chair, 2nd International Conference on Service-Learning (ICSL2016)
2014 Technical Program Co-Chair, 2nd Summit on University Social Responsibility cum Inaugural International Conference on Service-Learning, Hong Kong
2014 Social Media and Publicity Chair, ACM Multimedia
2012 Technical Program Co-Chair, 1st IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE)
2012 Publicity Chair, 8th International Symposium on Chinese Spoken Language Processing (ISCSLP)
2009 Faculty Advisor for Student Research Workshop, Joint Conference of the 47th Annual Meeting of the Association for Computational Linguistics and the 4th International Joint Conference on Natural Language Processing of the Asian Federation of Natural Language Processing (ACL-AFNLP)
2009 Local Organization Chair, 22nd International Conference on the Computer Processing of Oriental Languages (ICCPOL)
2007 Organizing Committee, 8th Chinese Lexical Semantics Workshop (CLSW)
2006 Area Chair and Program Committee, Empirical Methods for Natural Language Processing (EMNLP) Conference
2002 Co-chair for Workshop: "Building and Using Semantic Networks", in conjunction with the 19th International Conference on Computational Linguistics (COLING)
2002-06, 2013 Program Committee, Association for Computational Linguistics (ACL) Conference
2003-05 Program Committee, Empirical Methods in Natural Language Processing (EMNLP) Conference
2002-04 Program Committee, International Conference on Computational Linguistics (COLING)
2003-05 Program Committee, Computational Natural Language Learning (CoNLL)

Service to University/Faculty/Department Committees

- 2017- Chair, Department Learning and Teaching Committee
2013-16 Co-Convenor of Community of Practice on Developing, Recognizing and Rewarding Excellent Teaching
2011-17 Coordinator of Subcommittee on Service Learning Subjects
2014- Elected Representative to Senate
2011-17 Member, Committee on General University Requirements
2012- Appointed Department Representative to Faculty Learning and Teaching Committee
2012 Appointed Member of Strategic Planning Taskforce, Subgroup on Teaching and Learning
2010-13 Elected Representative to Department Management Committee
2010-13 Elected Department Representative to Faculty Board of Engineering
2010-12 Deputy Chair of Department of Computing Learning and Teaching Committee,

2010-12	Programme Leader of Double Degree in Computing and Management
2008-10	Nominated Department Representative to Faculty of Engineering Working Group on Student Awards and Scholarships
2006-12	Member of Department Teaching and Learning Committee
2006-	Member of Department Undergraduate Programme Committee
2005-07	Member of Department Research Committee
2006-11	Supervisor and Organizer of Department Summer Camps
2006-08	Elected Department Representative to Non-Heads Department Consultative Group
2004	Selection Panel for Hong Kong Jockey Club Scholarship

Services to External Societies

2009-10	Mentor, British Computing Society (BCS) Mentoring Scheme
2008-09	Executive Committee, IEEE Hong Kong Section Computer Chapter
2005-06	Examination Setter, Hong Kong Certificate of Education Examinations
2005-07	Board of Directors, Hong Kong Young Women's Christian Association
2003-05	Advisory Committee, Special Interest Group in Natural Language Learning (SIGNLL)

Consultancy Projects

2010	Co-developed <i>Creative Robot Training Program</i> , a creativity and problem-solving short course for Form 2 students at the China Holiness College.
2010	Co-authored and taught <i>Customer Centric Software Design Workshop</i> , a workshop focusing on web design issues, for Hong Kong Post (HKP) Staff
2010	Co-authored and taught <i>Professional Development Workshop</i> , a workshop focusing on web programming issues, for secondary school teachers, Educational Development Bureau.
2007-10	Co-investigator and co-organized workshops on <i>ICT Training and Learning Development</i> for St. Paul's Co-educational College and Primary School.
2009	Co-developed and authored <i>Creativity Through Wearable Computing</i> , a creativity and problem-solving short course for Primary 4-6 students at the Conservative Baptist Lui Ming Choi Primary School.
2008	Co-investigator for a project on <i>Study of Requirements and Technical Specifications for the ICT Infrastructure</i> , for St. Paul's College Primary School
2007	Co-developed <i>Multimedia Production and Web Site Development</i> , a Learning and Teaching Resource Package for the elective part of the New Senior Secondary Information and Communication Technology Curriculum, Educational Development Bureau.
2007-08	Co-developed <i>A Short Course on Innovative Robotics</i> , an educational consultancy project for St. Paul's Co-educational College.
2006-07	Co-developed and authored <i>Robots Exploring Science</i> , a creativity and problem-solving short course for Form 2 Science curriculum for Diocesan Girls' School.