

RESEARCH INTERESTS

- Interactive storytelling
- Story-grounded systems
- Narrative sensemaking
- Embodied interaction
- Technologies for special populations (children, elderly, blind, etc.)
- Materiality, physicality & meaning
- Human perception and media
- Maker technologies for children
- Creativity support systems
- Educational technologies

EDUCATION

Texas A&M University, <i>College Station, TX</i>	Doctor of Philosophy <i>Department of Architecture/Visualization</i> Dissertation Advisors: Dr. Francis Quek / Dr. Rodney Hill	2010 – 2015
Virginia Tech, <i>Blacksburg, VA</i>	Masters of Science <i>Department of Computer Science & Applications, GPA: 4.0/4.0</i> Thesis Advisors: Dr. Benjamin Knapp / Dr. Francis Quek	2010 –2013
Virginia Tech, <i>Blacksburg, VA</i>	Graduate Certificate in Human-Computer Interaction <i>Department of Computer Science & Applications</i>	2010 –2013
National University of Singapore, <i>Singapore</i>	Bachelor of Social Sciences (1st Class Honors) <i>Department of Communications and New Media, GPA: 4.7/5.0</i> Thesis Advisor: Dr. Timothy Marsh	2005 – 2009

GRANTS

Co-Principal Investigator	Innovative Technology Experiences for Students and Teachers (ITEST) Quek, F. (PI), Chu, S. (Co-PI), Larke, P. (Co-PI), Schlegel, R. (Co-PI) and Burlbaw, L. (Co-PI). <i>Making the Maker: A Pathway to STEM for Elementary School Students.</i> National Science Foundation, NSF-DRL-1433770, \$1,083,211.00. Role: Contributed intellectually to the team. Wrote a significant portion of the proposal. In-charge of leading key efforts of the research project.	Awarded (1 Sept 2014 – 31 Aug 2017)
Proposal Writer	Program to Enhance Scholarly and Creative Activities (PESCA) Quek, F. (PI), Burlbaw, L. (Co-PI) and Smith, S. (Co-PI). <i>Nurturing Creativity in Children’s Storytelling through Digital Enactment.</i> Texas A&M University, \$24,999.73. Role: Wrote the proposal (but as a student, was not eligible for PI-ship at the time of writing). In-charge of all phases of the research project.	Awarded (1 May 2014 – 30 June 2015)

PUBLICATIONS

Note: The publication culture in Human-Computer Interaction (HCI) tends to differ from that of some other disciplines. Whereas many disciplines consider journals as hallmarks of excellence, in HCI, publications in highly competitive peer-reviewed conferences provide as much certification as publishing in a journal. This culture is similar to that of the Computer Science field, where fast-paced advances in technology necessitates rapid dissemination of knowledge.

Peer-Reviewed Conference Proceedings

		Acceptance Rate
1	Chu, S. , Quek, F., Saenz, M., Bhangaonkar, S. and Okundaye, O. (2015). Enabling Instrumental Interaction through Electronics Making: Effects on Children's Storytelling. In Proceedings of <i>International Conference on Interactive Digital Storytelling (ICIDS '15)</i> . Copenhagen, Denmark.	~ 37%
	<i>ICIDS</i> is the premier international conference that addresses the challenges of and innovation in interactive digital storytelling that combines narrative and computation.	
2	Arita, J., Seo, J, Chu, S. and Quek, F. (2015). The Role of Materiality in Tangibles for Young Children's Digital Art Drawings. In <i>Proceedings of Interaction Design & Children (IDC '16)</i> . Boston, MA.	~ 23%
	<i>IDC</i> is the only conference in HCI that explores new forms of interactive technology, design and engaged learning focused on children.	
3	Chu, S. , Quek, F. and Sridharamurthy, K. (2015). Augmenting Children's Creative Self-Efficacy and Performance through Enactment-Based Animated Storytelling. In <i>Proceedings of the 9th International Conference on Tangible, Embedded and Embodied Interaction (TEI '15)</i> . Stanford University, CA. ACM.	~ 28%
	<i>TEI</i> is a premier conference in the area of Embodied Interaction. It addresses issues of human-computer interaction, design, interactive art, user experience, tools and technologies.	
4	Seo, H., Arita, J., Chu, S. , Quek, F. and Aldriedge, S. (2015). Material Significance of Tangibles for Young Children. In <i>Proceedings of the 9th International Conference on Tangible, Embedded and Embodied Interaction (TEI '15)</i> . Stanford University, CA. ACM.	~ 28%
5	Chu, S. and Quek, F. (2014). Exploring Performative Authoring as a Story Creation Approach for Children. In <i>Proceedings of International Conference on Interactive Digital Storytelling (ICIDS '14)</i> . Singapore, Singapore.	~ 28%
6	Chu, S. , Quek, F. and Sridharamurthy, K. (2014). Ready...Action! A Performative Authoring System for Children to Create Animated Stories. In <i>the 11th Advances in Computer Entertainment Technology Conference (ACE '14)</i> . Madeira, Portugal.	~ 40%
7	Chu, S. and Quek, F. (2014). The Effects of Visual Contextual Structures on Children's Imagination in Story Authoring Interfaces. In <i>Proceedings of Interaction Design & Children (IDC '14)</i> . Aarhus, Denmark.	~ 30%
8	Chu, S. , Quek, F. and Tanenbaum, J. (2013). Performative Authoring: Nurturing Storytelling in Children through Imaginative Enactment. In <i>the International Conference on Interactive Digital Storytelling (ICIDS '13)</i> . Istanbul, Turkey. [Best Paper Award]	~ 27.4%
9	Chu, S. and Quek, F. (2013). Things to Imagine With: Designing For the Child's Creativity. In <i>Interaction Design & Children '13</i> . New York City, NY: ACM.	~ 33%
10	Chu, S. , Quek, F., Gusukuma, L. and Tanenbaum, J. (2013). The Effects of Physicality on the Child's Imagination. In <i>Creativity and Cognition '13</i> . Sydney: Australia.	~ 32%
	<i>Creativity and Cognition</i> is a single-track conference that explores the human capacity to creatively solve problems and produce novel and valuable artifacts in their context and culture.	
11	Chung, H., Chu, S. , Quek, F. and North, C. (2013). A Comparison of Two Display Ecology Models for Collaborative Sensemaking. In <i>the 2nd International Symposium on Pervasive Displays (PerDis '13)</i> . Mountain View: CA. 4-5 June, 2013.	~ 70%
	This was the second iteration of the <i>PerDis</i> conference. The high acceptance rate was in the spirit of expanding the community of this conference.	
12	Chu, S. and Quek, F. (2013). Information Holodeck: Thinking in Technology Ecologies. In proceedings of INTERACT '13. Cape Town: South Africa. IFIP-Springer LNCS.	~ 31%
	INTERACT is among the world's top conferences in Human-Computer Interaction, under the aegis of the Technical Committee 13 on Human-Computer Interaction of the International Federation for Information Processing (IFIP).	

13	Chu, S. , Quek, F., Wang, Y. and Hartson, R. (2013). <i>Finding-NEVO: Toward Radical Design in HCI</i> . In <i>INTERACT '13</i> . Cape Town: South Africa. IFIP-Springer LNCS.	~ 31%
14	Chu, S. , Federovskaya, E., Quek, F., and Snyder, J. (2013). "The Effect of Familiarity on Perceived Interestingness of Images". In Proceedings of <i>IS&T/SPIE International Conference on Human Vision & Electronic Imaging XVIII</i> , Vol. 8651, SPIE: Burlingame, CA.	~40%
15	Chu, S. , Quek, F. and Lin, X. (2011) Studying Medium Effects on Children's Creative Processes. In <i>Creativity & Cognition '11</i> . ACM: pp. 3-12: Atlanta, GA.	~ 23%
16	Chu, S. , Quek, F., Endert, A., Chung, H. and Sawyer, B. (2012). The Physicality of Technological Devices in Education: Building a digital experience for learning. In <i>IEEE International Conference on Advanced Learning Technologies (ICALT 2012)</i> . Rome, Italy.	~ 23%
ICALT is an annual international conference organized by the IEEE Computer Society and IEEE Technical Committee on Learning Technology that addresses emerging technologies in all areas of education.		
17	Sawyer, B., Quek, F., Wong, W., Motani, M., Chu Yew Yee, S. and M. Perez-Quinones (2012). Using Physical-Social Interactions to Support Information Re-finding. In <i>ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2012)</i> . Austin, TX.	~ 23%
18	Duh, H.B.L., Chu Yew Yee, S.L. , Chen, V.H.H. Gu, Y. (2010). A Narrative-driven Design Approach for Casual Games with Children. In <i>SIGGRAPH '10: the International Conference on Computer Graphics and Interactive Techniques (Game paper section)</i> . Los Angeles, CA.	~ 22%
SIGGRAPH is an annual conference that presents the latest computer graphics and interactive techniques from both academia and industry.		
19	Chu Yew Yee, S. L. , Duh, H. B. L. & Quek, F. (2010). Investigating Narrative in Mobile Games for Seniors. In <i>CHI 2010, 28th ACM Conference on Human Factors in Computing Systems</i> , pp. 669-672. Atlanta, GA. [Honorable Mention for Best Paper]	~ 22%
CHI is the world's premiere conference in HCI that presents a highly selective showcase of advances across computer science, design, social science, and other disciplines pertaining to research and design of innovative technologies.		
20	Chu Yew Yee, S. L. & Marsh, T. (2009). Investigating fun and learning in educational games. In <i>ISAGA 2009, the International Simulation and Gaming Association conference '09</i> . Singapore, Singapore.	~ 36%

Journal Articles/Chapters

		Impact Factor
1	Chu, S. , Quek, F., Bhangaonkar, S., Ging, A. B. and Sridharamurthy, K. (2015). Making the Maker: Nurturing the Maker Mindset. In the <i>International Journal of Child-Computer Interaction: Special Issue on Digital Fabrication in Education</i> .	4.179
2	Chu, S. and Quek, F. (2015). Beyond 'Apps' on Tablets: Making Sense of Learning within Technology Ecologies. The Impact of Pen and Touch Technology on Education. <i>Human-Computer Interaction Series</i> , pp. 173 - 192. Springer.	
3	Chung, H., Self, J., North, C., Chu, S. and Quek, F. (2013). VisPorter: Facilitating Information Sharing for Collaborative Sensemaking on Multiple Displays. In <i>Journal of Personal and Ubiquitous Computing: Theme Issue on Designing Collaborative Interactive Spaces</i> , pp. 1-18.	1.616

Workshop Proceedings

1	Chu, S. and Quek, F. (2013). An Enactment-Based Approach to Creativity Support. In <i>Proceedings of Workshop on Interactive Technologies that Enhance Children's Creativity at Interaction Design & Children '13</i> . New York City: NY. June 24.
2	Chu, S. and Quek, F. (2013). MAIA: A Methodology for Assessing Imagination in Action. Presented at the <i>CHI 2013 Workshop on Evaluation Methods for Creativity Support Environments</i> , Paris, France: ACM.
3	Quek, F. and Chu, S. Thinking with objectified digital entities. In <i>Proceedings of CHI 2012 Workshop on Digital materiality</i> . Austin, TX: ACM.
4	Sawyer, B., Quek, F., Wong, W., Motani, M., Chu Yew Yee, S. and Perez-Quinones, M., Martin, T., Burbey, T. and McNair, L. "Information Re-finding Through Physical-Social Contexts". <i>Workshop on Personal Information Management (PIM) 2012 at ACM Conference for Computer Supported Collaborative Work (CSCW)</i> .
5	Chu Yew Yee, S. L. , Duh, H. B. L., Billingham, M., Quek, F. and Chen, V. H. H. Current progress in

interaction design for seniors. *CHI 2010 Workshop on Senior-friendly technologies: Interaction design for the elderly*.

Paper Abstracts

- 1 Saenz, M., Strunk, J., **Chu, S. L.** and Seo, H. (2015). Touch Wire: Interactive Tangible Electricity Game For Kids. In *Proceedings of the 9th International Conference on Tangible, Embedded and Embodied Interaction (TEI '15) Work-in-Progress*. Stanford University, CA. ACM.
- 2 **Chu, S.** (2013). Nurturing Children's Creative Practice in Storytelling through Micro-Enactments. *Doctoral Consortium at INTERACT '13*. Cape Town: South Africa.
- 3 **Chu, S.** (2013). Nurturing Children's Creative Practice in Storytelling through Micro-Enactments. *Graduate Student Symposium at Creativity & Cognition '13*. Sydney: Australia.
- 4 **Chu, S.** (2013). Nurturing Children's Creative Practice through Micro-Enactments. In *Proceedings of the Conference on Human Factors in Computing System EA, (CHI Doctoral Consortium)*. Paris, France: ACM.
- 5 **Chu Yew Yee, S. L.**, Gu, Y. X., Duh, H. B. L. (2010). A Narrative Approach for Game Design with Children. *IEEE Learning Technology Newsletter (Special Issue on Game-Based Learning)*, 12(1).
http://lttf.ieee.org/issues/january2010/index.htm#_Toc253225019

Invited Presentations

- 1 **Chu, S.** (2015). Stories We Live In: Understanding our Storied Self through Technology Design. Presented at Cognoscenti, Department of Psychology, Texas A&M University. October 12th.
- 2 **Chu, S.** (2015). Stories We Live In: Narratives, Embodiment and Technology. Presented at the *Department of Human-Centered Computing, School of Informatics and Computing, Indiana University*. Indianapolis, IN. March 30th.
- 3 **Chu, S.** (2015). Stories We Live In: Narratives, Embodiment and Technology. Presented at the *Wisconsin Institute for Discovery, University of Wisconsin-Madison*. Madison, WI. March 19th.
- 4 **Chu, S.** (2015). Stories We Live In: Narratives, Embodiment and Technology. Presented at the *School of Arts, Technology & Emerging Communication, University of Texas at Dallas*. Richardson, TX. March 11th.
- 5 **Chu, S.** and Quek, F. (2014). Beyond 'Apps' on Tablets: Making Sense of Learning within Technology Ecologies. Presented at the *8th Workshop on the Impact of Pen and Touch Technology on Education (WIPTTE '14)*. College Station, TX.
- 6 **Chu, S.** (2012). Investigating the Physicality of Tangible Objects for Creativity Support of Children in Digital Storytelling. Presented at the *HCI Seminar Series at the Center for Human-Computer Interaction (CHCI) at Virginia Tech*. Blacksburg, VA.

Demos

- 1 Saenz, M., Strunk, J., **Chu, S. L.** and Seo, H. (2015). Touch Wire: Interactive Tangible Electricity Game For Kids. *Demo presented at the 9th International Conference on Tangible, Embedded and Embodied Interaction (TEI '15)*. Stanford University, CA. ACM.
- 2 Quek, F., Miller, C., Joshi, A., Verdie, Y., Ehrich, R., Evans, M., **Chu Yew Yee, S.** and Chakraborty, P. (2010). TanTab, The Tangram Tabletop System. *Finalist showcase presented at the SIGGRAPH 2010 Disney Research Learning Challenge*. Los Angeles.

THESES/DISSERTATIONS

- 1 **Chu Yew Yee, S. L.** (2015). Performative Authoring: Nurturing Children's Creativity and Creative Self-Efficacy through Digitally-Augmented Enactment-Based Storytelling. *Doctoral Dissertation, Department of Architecture, Texas A&M University*. College Station, TX.
- 2 **Chu Yew Yee, S. L.** (2013). An Evaluation Method for Thinking in Technology Ecologies. *MS Thesis, Department of Computer Science & Applications, Virginia Tech*. Blacksburg, VA.
- 3 **Chu Yew Yee, S. L.** (2009). Investigating fun and learning in serious games using the repertory grid technique. *Bachelor Honors Thesis, Department of Communications & New Media, National University of Singapore*. Singapore, Singapore.

PATENTS

Kodak Research Labs **Determining An Interest Level for an Image** **2012**
Rochester, NY Cross-Applications: **Modifying Digital Images to Increase Interest Level; Method for Presenting High-Interest-Level Images; System for Presenting High-Interest-Level Images; System for Modifying Images to Increase Interestingness**
(Serial No. 13/537,099)
 Fedorovskaya, E., Snyder, J., Kurtz, A., **Chu Yew Yee, S.** and Shepter, G.

RESEARCH EXPERIENCE

Research Assistant **TAMU Embodied Interaction Lab (TEIL)**, www.teilab.tamu.edu **2013 – 2014**
Texas A&M University, Assist in grant writing; Management of research projects; Mentoring of
College Station, TX graduate students in HCI; Conduct research on creativity in children, reading support for the blind, and the integration of Making activities (basic electronics) into elementary school curriculum to promote STEM engagement and self-identity.

Graduate Assistant **Institute of Creativity, Arts & Technology (ICAT)**, www.icat.vt.edu **2012 – 2013**
Virginia Tech Conducted research on creative processes with children, and helping
Blacksburg, VA with activities that align with ICAT's goal of integrating engineering, the arts, science and design.

Research Assistant **Vision & Interfaces Lab (VISLab)** **2011 –2012**
Virginia Tech, Designed user studies for a research project studying the experience of
Blacksburg, VA students handling information in a digital ecology of touch devices, from *ipod Touch* and *iPads* to large touch screens.

HCI Intern **Computational Science and Technology Lab,** **2011**
Kodak Research Labs http://www.kodak.com/ek/US/en/About_Kodak_Top/Science_Technology/Computational_Science.htm
Rochester, NY Worked on a research project, from conceptualization to data analysis, investigating the effects of familiarity and experience on the perceived interestingness of photos.

Researcher **NUS-KEIO CUTE Center/ Mixed Reality Lab,** **2009 – 2010**
Interactive and Digital <http://www.cutecenter.org>
Media Institute, Designed and conducted experiments and user studies for multiple
Singapore research projects on interaction design for seniors, microblogging, educational game design for children, mobile augmented reality. Carried out qualitative and quantitative data collection, coding and analysis. Wrote paper publications and reports. Organized a workshop at CHI 2010. Managed interdisciplinary teams of programmers, designers/artists and researchers. Advised final year undergraduate students.

TEACHING

Lecturer **Department of Visualization**, www.viz.tamu.edu **2014 – Present**
Texas A&M University, • VIST 489-500 Introduction to Interaction Design: Mixed senior
College Station, TX undergraduate/graduate class – Spring 2015
 • VIST 489/VIZA 689 Embodied Interaction: Mixed senior undergraduate/graduate class – Fall 2014

Invited Speaker **Soft Interaction Lab**, <http://softinteraction.com/> **2014**
Texas A&M University, Gave a 3-part seminar series on 'An introduction to HCI', 'A methodology for HCI research', and 'Research methods in HCI', that was open to all students and faculty.
College Station, TX

Graduate Teaching Assistant <i>Virginia Tech, Blacksburg, VA</i>	Department of Computer Science, www.cs.vt.edu Managed and coordinated 'Professionalism in Computing' course. Coordinate assessments, structure course and evaluate students' performance on presentations and essays.	2010 –2011
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STUDENT SUPERVISION & MENTORING

Graduate Students

Kumar Sridharamurthy (M.Sc, Texas A&M University) Supervising on the development of the DiME performative story authoring system for children. Co-advising with Dr. Francis Quek on thesis exploring the development of scalable, low-cost motion tracking solutions for use by children in enactment-based storytelling.	2013 – Present
Sourabh Bhangaonkar (M.Sc, Texas A&M University) Co-advising with Dr. Francis Quek on thesis exploring the role of mobile augmented reality in technology ecologies of devices and displays to support learning.	Present
Janelle Arita (M.Sc, Texas A&M University) Co-mentoring with Dr. Hwaryoung Seo on thesis investigating the effects of material feel and texture in interaction design to support young children's learning of concepts.	Present
Deepika Panchalingam (M.Sc, Texas A&M University) Co-advising with Dr. Francis Quek on a project exploring the aspects of online social media communities that may support the development of Maker identities in children.	Present
Akash Sahoo (M.Sc, Texas A&M University) Co-advising with Dr. Francis Quek on a project involving the development of an e-reader that supports active reading for the blind by allowing them to exploit spatial sense.	Present
Yao Wang (PhD, Virginia Tech) Mentored on a project that explored the methodologies currently used by researchers in the HCI community to design systems in an effort to develop a systematic methodology for HCI research.	2012 – 2013
Haeyong Chung (PhD, Virginia Tech) Mentored on various aspects of dissertation that investigated the use of technology ecologies of devices and displays for information sensemaking.	2011 – 2013

Undergraduate Students

Michael Saenz (BSc, Texas A&M University) Directed studies supervision on a project investigating the effects of scaffolding on children's learning of electronics circuitry concepts through seamless transition between the different modes of representation (the enactive to the iconic to the symbolic). The project entails the development of an electronics building simulation for children on the iPad tablet.	Present
Joshua Strunk (BSc, Texas A&M University) Supervising on a project that explores the notions of time and uncertainty in games with the goal of developing a temporal framework that can support the maximization of the player's experience in game design.	Present

PROFESSIONAL SERVICE

Program Committee	IARIA Advances in Computer-Human Interactions (ACHI)
Workshop Organizer	CHI 2010 Workshop on Senior-Friendly Technologies: Interaction Design for Seniors

Conference Reviewer	ACM Symposium on Spatial User Interaction (SUI) ACM Conference on Human Factors in Computing Systems (CHI) IARIA Advances in Computer-Human Interactions (ACHI) ACM Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI) International Symposium on Mixed and Augmented Reality (ISMAR) Virginia Tech Graduate Student Symposium
Journal Reviewer	International Journal of Child-Computer Interaction
Others	HCI Seminar Series coordinator at Virginia Tech
Affiliations	TAMU Institute for Applied Creativity (IAC), ACM, IEEE

OTHER WORK EXPERIENCE

Associate Director <i>Texas A&M University, College Station, TX</i>	TAMU Embodied Interaction Lab , teilab.tamu.edu Assist in the management of lab activities and supervision of research assistants	2014 – Present
Summer Intern , <i>Massachusetts Institute of Technology, Cambridge, MA</i>	Singapore-MIT Gambit Game Lab , http://gambit.mit.edu/loadgame/gumbeat.php Acted as Producer/Scrummaster. Led a team of programmers, artists and tester to produce a persuasive casual game centered on research themes of integrating complex ideas and simple gameplay. Scheduled entire game development process from concept to testing using the Scrum methodology. Delegated tasks and maintained project vision. Liaised with product owners, sound team and external parties. Presented at press conferences.	2008
Project Intern , <i>Singapore</i>	M2B Game World Ltd. , http://www.playnetearth.com/ Conducted market analysis through surveying of the online games market. Revamped company's blog. Conceived proposals for the company's rebranding. Developed company's sales kit. Assisted in development of company's new website.	2007

HONORS & AWARDS

Best Paper Award	<i>Performative Authoring: Nurturing Storytelling in Children through Imaginative Enactment</i> , Chu, S., Quek, F. and Tanenbaum, J. International Conference on Interactive Digital Storytelling (ICIDS).	2013
Honorable Mention for Best Paper	<i>Investigating Narrative in Mobile Games for Seniors</i> , Chu Yew Yee, S. L., Duh, H. B. L. and Quek, F. ACM Conference on Human Factors in Computing Systems (CHI).	2010
Best Well-Rounded Honors Student	Department of Communications & New Media, Singapore.	2009
Dean's List	National University of Singapore.	2006 – 2009
Long Service Award	Dance and Wushu (Martial arts), King Edward VII Residence Hall .	2009
Outstanding Student Leader Award	Dance, King Edward VII Residence Hall.	2008
2nd Nationwide	Cambridge 'A' Level Examinations, Technical Stream, Mauritius.	2004

SCHOLARSHIPS

CRA-W Grad Cohort Program Scholar	Women in Computing Research Association Scholarship Recipient.	2011
NUS Kwan Im Thong Hood Cho Temple Scholar	National University of Singapore Scholarship Recipient.	2007 – 2009

RELEVANT SKILLS

Research Skills	Research conceptualization; Prototyping; Experimental design; Quantitative data analysis; Qualitative data coding, Paper and grant writing.
Other Skills	Interdisciplinary teamwork; Independent work; Strong writing ability; Highly detailed and results-oriented; Flexible and willing to learn; Handles pressure and deadlines well.
Languages	Spoken and Written fluency in English, French and Creole
Tools (Quantitative)	Statistical Package for the Social Sciences (SPSS); JMP data analysis software
Tools (Qualitative)	InqScribe, Elan, NVivo
Tools (Media)	Photoshop CS6, Omnigraffle Pro, iMovie, InDesign CS2