

# JUHO KIM

Assistant Professor, School of Computing at KAIST  
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## EDUCATION

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<b>Massachusetts Institute of Technology</b> Ph.D. in Electrical Engineering and Computer Science Thesis: Learnersourcing: Improving Learning with Collective Learner Activity Advisors: Robert C. Miller & Krzysztof Z. Gajos	Cambridge, MA Aug.2015
<b>Stanford University</b> M.S. in Computer Science (Specialization: Human-Computer Interaction) Advisor: Scott R. Klemmer	Stanford, CA Jun.2010
<b>Seoul National University</b> B.S. in Computer Science and Engineering (Summa Cum Laude)	Seoul, Korea Jun.2008

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## RESEARCH INTERESTS

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Human-computer interaction, Learning at scale, Crowdsourcing, Civic engagement, Data-driven interaction

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## EMPLOYMENT

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<b>School of Computing, KAIST</b> <i>Assistant Professor of Computer Science</i> Director of KIXLAB (the KAIST Interaction Lab) & Founding Member of HCI@KAIST	Daejeon, Korea Jul.2016–Present
<b>Computer Science Department &amp; Brown Institute, Stanford University</b> <i>Visiting Assistant Professor &amp; Brown Fellow. Host: Maneesh Agrawala</i>	Stanford, CA Aug.2015–Jun.2016
<b>User Interface Design Group, MIT CSAIL</b> <i>Research Assistant. Mentor: Robert C. Miller</i>	Cambridge, MA Sep.2010–Aug.2015
<b>Microsoft Research</b> <i>Research Intern. Mentors: Meredith R. Morris &amp; Andrés Monroy-Hernández</i>	Redmond, WA May 2014–Aug. 2014
<b>Learning Sciences Team, edX</b> <i>Research Intern. Mentor: Piotr Mitros</i>	Cambridge, MA May 2013–Aug.2013
<b>Creative Technologies Lab, Adobe Systems Inc.</b> <i>Research Intern. Mentor: Joel Brandt</i>	San Francisco, CA May 2011–Sep.2011
<b>USER Group, IBM Almaden Research Center</b> <i>Research Intern. Mentors: Eser Kandogan &amp; Thomas P. Moran</i>	San Jose, CA May 2010–Aug.2010
<b>HCI Group, Stanford University</b> <i>Research Assistant. Mentor: Scott R. Klemmer</i>	Stanford, CA Apr.2009–Jun.2010
<b>SystemBase Co., Ltd.</b> <i>Project Manager &amp; Embedded Software Engineer</i>	Seoul, Korea Dec.2004–Sep.2007
<b>Samsung Electronics Co., Ltd. Software Center</b> <i>Summer Intern</i>	Suwon, Korea Jul.2003–Aug.2003

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## AWARDS & HONORS

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<b>Best Paper Runner-Up</b> GroupSight 2017 Workshop on Human Computation for Image and Video Analysis @ HCOMP 2017 [p.39]	Oct 2017
<b>Honorable Mention Award</b> CHI 2016; among the top 4% of all submissions [c.20]	May 2016
<b>Honorable Mention Award</b> Learning at Scale 2016; among the top 4 awarded papers [c.19]	Apr. 2016
<b>mediaX “Memory, Estates and Legacies in the Digital World” Grant</b> \$30K, with Maneesh Agrawala, Stanford University	Sep.2015
<b>Brown Fellowship</b> Brown Institute, Stanford University	Aug.2015
<b>Honorable Mention Award</b> CHI 2015; among the top 5% of all submissions [c.16]	Apr.2015
<b>Honorable Mention Award</b> CHI 2015; among the top 5% of all submissions [c.15]	Apr.2015
<b>Honorable Mention Award</b> CHI 2015; among the top 5% of all submissions [c.14]	Apr.2015
<b>Honorable Mention Award</b> CHI 2014; among the top 5% of all submissions [c.9]	Apr.2014
<b>Honorable Mention Award</b> CHI 2014; among the top 5% of all submissions [c.8]	Apr.2014
<b>Notable paper award</b> HCOMP 2013 [c.5]	Nov.2013
<b>2nd Place, Student Research Competition</b> CHI 2013; \$300 award + \$500 support [p.7]	May 2012
<b>1st Place Technical Lecture Award</b> The 8th Annual Young Generation Technical and Leadership Conference	Jan.2012
<b>Best Talk Award</b> Samsung Scholarship Open Talk at the 2011 Samsung Scholarship Academic Camp	Jun.2011
<b>The Samsung Scholarship</b> Tuition and living costs covered for Ph.D. studies (\$50K per year, for 5 years)	2010–2015
<b>The Samsung Scholarship</b> Tuition and living costs covered for Master’s studies (\$50K per year, for 2 years)	2008–2010
<b>Independent Study Scholarship</b> \$1K Research grant awarded by Center for Teaching & Learning, Seoul National University	Oct.2007
<b>Seoul National University Scholarship</b> Merit-based scholarships for 7 semesters	Aug.2001–Aug.2004

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## PUBLICATIONS

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### Conference Papers

- [c.31] Understanding the Effect of In-Video Prompting on Learners and Instructors.  
Hyungyu Shin, Eun Young Ko, Joseph Jay Williams, **Juho Kim**.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.30] RecipeScope: An Interactive Tool for Analyzing Cooking Instructions at Scale.  
Minsuk Chang, Leonore Guillain, Hyeungshik Jung, Vivian Hare, **Juho Kim**, Maneesh Agrawala.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.29] ConceptScope: Collaborative Concept Mapping for Video Learning.  
Ching Liu, **Juho Kim**, Hao-Chuan Wang.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.28] Enhancing Online Problems Through Instructor-Centered Tools for Randomized Experiments.  
Joseph Jay Williams, Anna Rafferty, Dustin Tingley, Andrew Ang, Walter Lasecki, **Juho Kim**.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.27] To Distort or Not to Distort: Distance Cartograms in the Wild.  
Sungsoo (Ray) Hong, Minjoon Yoo, Bonnie Chinh, Amy Han, Sarah Battersby, **Juho Kim**.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.26] Collaborative Dynamic Queries: Supporting Distributed Small Group Decision-making.  
Sungsoo (Ray) Hong, Minhyang (Mia) Suh, Nathalie Henry Riche, Jooyoung Lee, Juho Kim, Mark Zachry.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.25] BebeCode: Collaborative Child Development Tracking System.  
Seokwoo Song, **Juho Kim**, Bumsoo Kang, Wonjeong Park, John Kim.  
*CHI 2018: ACM Conference on Human Factors in Computing Systems*. (25.8% acceptance rate, to appear)
- [c.24] Two Tools are Better Than One: Tool Diversity as a Means of Improving Aggregate Crowd Performance.  
Jean Y. Song, Raymond Fok, Alan Lundgard, Fan Yang, **Juho Kim**, Walter S. Lasecki.  
*IUI 2018: ACM International Conference on Intelligent User Interfaces*. (23% acceptance rate, to appear)
- [c.23] Korero: Facilitating Complex Referencing of Visual Materials in Asynchronous Discussion Interface.  
Soon Hau Chua, Toni-Jan Keith Monserrat, Dongwook Yoon, **Juho Kim**, Shengdong Zhao.  
*CSCW 2018: ACM Conference on Computer-Supported Cooperative Work and Social Computing*. (27.3% acceptance rate, 19 pages)
- [c.22] Designing Interactive Distance Cartograms to Support Urban Travelers.  
Ray Hong, Rafal Kocielnic, Min-Joon Yoo, Sarah Battersby, **Juho Kim**, Cecilia Aragon.  
*PacificVis 2017: IEEE Pacific Visualization Symposium*. (29.3% acceptance rate, 10 pages)
- [c.21] "Don't Bother Me. I'm Socializing.": Breakpoint-Based Smartphone Notification System.  
Chunjong Park, Junsung Lim, **Juho Kim**, Sung-Ju Lee, Dongman Lee.  
*CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing*. (35% acceptance rate, 14 pages)
- [c.20] Revising Learner Misconceptions Without Feedback: Prompting for Reflection on Anomalous Facts.  
Joseph Williams, Tania Lombrozo, Anne Hsu, Bernd Huber, **Juho Kim**.  
*CHI 2016: ACM Conference on Human Factors in Computing Systems*. (23% acceptance rate, 5 pages)  
**Honorable Mention Award (top 4%)**.
- [c.19] AXIS: Generating Explanations at Scale with Learnersourcing and Machine Learning.  
Joseph Jay Williams, **Juho Kim**, Anna Rafferty, Samuel Maldonado, Krzysztof Z. Gajos, Walter S. Lasecki, Neil Heffernan.  
*L@S 2016: ACM Conference on Learning at Scale*. (22% acceptance rate, 10 pages)  
**Honorable Mention Award (top 4 papers)**.

- [c.18] BudgetMap: Engaging Taxpayers in the Issue-Driven Classification of a Government Budget.  
 Nam Wook Kim, Jonghyuk Jung, Eun-Young Ko, Songyi Han, Chang Won Lee, **Juho Kim**, Jihee Kim.  
*CSCW 2016: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*  
*(25% acceptance rate, 11 pages, with revise-and-resubmit cycle)*
- [c.17] RIMES: Embedding Interactive Multimedia Exercises in Lecture Videos.  
**Juho Kim**, Elena L. Glassman, Andrés Monroy-Hernández, Meredith Ringel Morris.  
*CHI 2015: ACM Conference on Human Factors in Computing Systems.* (23% acceptance rate, 10 pages)
- [c.16] Mudslide: A Spatially Anchored Census of Student Confusion for Online Lecture Videos.  
 Elena L. Glassman, **Juho Kim**, Andrés Monroy-Hernández, Meredith Ringel Morris.  
*CHI 2015: ACM Conference on Human Factors in Computing Systems.* (23% acceptance rate, 10 pages)  
**Honorable Mention Award (top 5%).**
- [c.15] Factful: Engaging Taxpayers in the Public Discussion of a Government Budget.  
**Juho Kim**, Eun-Young Ko, Jonghyuk Jung, Chang Won Lee, Nam Wook Kim, Jihee Kim.  
*CHI 2015: ACM Conference on Human Factors in Computing Systems.* (23% acceptance rate, 10 pages)  
**Honorable Mention Award (top 5%).**
- [c.14] Apparition: Crowdsourced User Interfaces That Come To Life As You Sketch Them.  
 Walter Lasecki, **Juho Kim**, Nick Rafter, Onkur Sen, Jeffery Bigham, Michael Bernstein.  
*CHI 2015: ACM Conference on Human Factors in Computing Systems.* (23% acceptance rate, 10 pages)  
**Honorable Mention Award (top 5%).**
- [c.13] Learnersourcing Subgoal Labels for How-to Videos.  
 Sarah Weir, **Juho Kim**, Krzysztof Z. Gajos, Robert C. Miller.  
*CSCW 2015: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*  
*(28.3% acceptance rate, 11 pages, with revise-and-resubmit cycle)*
- [c.12] Data-Driven Interaction Techniques for Improving Navigation of Educational Videos.  
**Juho Kim**, Philip J. Guo, Carrie J. Cai, Shang-Wen (Daniel) Li, Krzysztof Z. Gajos, Robert C. Miller.  
*UIST 2014: ACM Symposium on User Interface Software and Technology.* (22.2% acceptance rate, 10 pages)
- [c.11] Content-Aware Kinetic Scrolling for Supporting Web Page Navigation.  
**Juho Kim**, Amy X. Zhang, Jihee Kim, Robert C. Miller, Krzysztof Z. Gajos.  
*UIST 2014: ACM Symposium on User Interface Software and Technology.* (22.2% acceptance rate, 5 pages)
- [c.10] Attendee-sourcing: exploring the design space of community-informed conference scheduling.  
 Anant Bhardwaj, **Juho Kim**, Steven P. Dow, David Karger, Sam Madden, Robert C. Miller, Haoqi Zhang.  
*HCOMP 2014: AAAI Conference on Human Computation & Crowdsourcing.* (32% acceptance rate, 9 pages)
- [c.9] Crowdsourcing step-by-step information extraction to enhance existing how-to videos.  
**Juho Kim**, Phu Nguyen, Sarah Weir, Philip J. Guo, Robert C. Miller, Krzysztof Z. Gajos.  
*CHI 2014: ACM Conference on Human Factors in Computing Systems.* (22.8% acceptance rate, 10 pages)  
**Honorable Mention Award (top 5%).**
- [c.8] Frenzy: collaborative data organization for creating conference sessions.  
 Lydia Chilton, **Juho Kim**, Paul André, Felicia Cordeiro, James Landay, Dan Weld, Steven P. Dow,  
 Robert C. Miller, Haoqi Zhang.  
*CHI 2014: ACM Conference on Human Factors in Computing Systems.* (22.8% acceptance rate, 10 pages)  
**Honorable Mention Award (top 5%).**
- [c.7] Understanding in-video dropouts and interaction peaks in online lecture videos.  
**Juho Kim**, Philip J. Guo, Daniel T. Seaton, Piotr Mitros, Krzysztof Z. Gajos, Robert C. Miller.  
*L@S 2014: ACM Conference on Learning at Scale.* (35% acceptance rate, 10 pages)

- [c.6] How video production affects student engagement: an empirical study of MOOC videos.  
Philip J. Guo, **Juho Kim**, Rob Rubin.  
*L@S 2014: ACM Conference on Learning at Scale. (35% acceptance rate, 10 pages)*
- [c.5] Community clustering: leveraging an academic crowd to form coherent conference sessions.  
Paul André, Haoqi Zhang, **Juho Kim**, Lydia B. Chilton, Steven P. Dow, Robert C. Miller.  
*HCOMP 2013: AAAI Conference on Human Computation & Crowdsourcing. (30% acceptance rate, 8 pages)*  
**Notable Paper Award.**
- [c.4] Cobi: a community-informed conference scheduling tool.  
**Juho Kim**, Haoqi Zhang, Paul André, Lydia B. Chilton, Wendy Mackay, Michel Beaudouin-Lafon, Robert C. Miller, Steven P. Dow.  
*UIST 2013: ACM Symposium on User Interface Software and Technology. (20% acceptance rate, 10 pages)*
- [c.3] Social visualization and negotiation: effects of feedback configuration and status.  
Michael Nowak, **Juho Kim**, Nam Wook Kim, Clifford Nass.  
*CSCW 2012: ACM Conference on Computer-Supported Cooperative Work. (40% acceptance rate, 10 pages, with revise-and-resubmit cycle)*
- [c.2] How a freeform spatial interface supports simple problem solving tasks.  
Eser Kandogan, **Juho Kim**, Thomas P. Moran, Pablo Pedemonte.  
*CHI 2011: ACM Conference on Human Factors in Computing Systems. (26% acceptance rate, 10 pages)*
- [c.1] Evolutionary topic maps.  
**Juho Kim**, Won-Wook Hong, Robert Ian McKay.  
*KHCI 2009: HCI Korea Conference. (5 pages)*

## Book Chapters

- [b.1] Making Static Lessons Adaptive through Crowdsourcing & Machine Learning.  
Joseph Jay Williams, **Juho Kim**, Elena L. Glassman, Anna Rafferty, Walter S. Lasecki.  
*In Design Recommendations for Intelligent Tutoring Systems: Domain Modeling (Volume 4). 2016.*

## Posters, Demos, and Workshop Papers

- [p.39] Exprgram: A Video-based Language Learning Interface Powered by Learnersourced Video Annotations.  
Kyungje Jo, John Joonyoung Chung, **Juho Kim**.  
GroupSight 2017 Workshop on Human Computation for Image and Video Analysis @ HCOMP 2017.  
**Best paper runner-up.**
- [p.38] VideoScape: Augmenting video learning experience with concept map.  
Ching Liu, Hao-Chuan Wang, **Juho Kim**.  
*TAICHI 2017.*
- [p.37] Connecting Instructors, Learning Scientists, and Reinforcement Learning Researchers via Collaborative Dynamic Personalized Experimentation.  
Joseph Jay Williams, Anna Rafferty, Andrew Ang, Dustin Tingley, Walter Lasecki, **Juho Kim**.  
*3rd Multidisciplinary Conference on Reinforcement Learning and Decision Making (RLDM 2017).*
- [p.36] RecipeScape: Mining and Analyzing Diverse Processes in Cooking Recipes.  
Minsuk Chang, Vivian Hare, **Juho Kim**, Maneesh Agrawala.  
*CHI 2017 Extended Abstract.*

- [p.35] PlayBetter: A Phone-based Baby Play Support System for Childcare Bystander Parents.  
Seokwoo Song, **Juho Kim**, John Kim.  
*CHI 2017 Extended Abstract.*
- [p.34] Connecting Instructors and Learning Scientists via Collaborative Dynamic Experimentation.  
Joseph Jay Williams, Anna Rafferty, Andrew Ang, Dustin Tingley, Walter Lasecki, **Juho Kim**.  
*CHI 2017 Extended Abstracts.*
- [p.33] MOOClets: A Framework for Dynamic Experimentation and Personalization.  
Joseph Jay Williams, Anna Rafferty, Samuel Maldonado, Andrew Ang, Dustin Tingley, **Juho Kim**.  
*Learning at Scale 2017 Work-in-Progress.*
- [p.32] Changing News Media Landscape in South Korea.  
Hongjun Lim, Choongho Chung, Jihee Kim, **Juho Kim**, Sue Moon, Meeyoung Cha.  
*WWW 2017 Workshop on Social News On the Web.*
- [p.31] Micro-NGO: Crowd-driven social activism via a chat-based online platform.  
Sung-Chul Lee, Jihee Kim, **Juho Kim**.  
*CSCW 2017 Workshop on Crowdsourcing Law and Policy.*
- [p.30] Crowdsourcing Law and Policy: A Design-Thinking Approach to Crowd-Civic Systems.  
Brian McInnis, Alissa Centivany, **Juho Kim**, Marta Poblet, Karen Levy, Gilly Leshed.  
*CSCW 2017 Workshop Program.*
- [p.29] Dynamic Personal Archives: Tracking How Ideas Progress Over Time.  
Jihyeon (Janel) Lee, **Juho Kim**, Maneesh Agrawala.  
*Stanford HCI + Design Open House.*
- [p.28] Automatic Extraction of References Between Text and Charts.  
Sherry Ruan, Dae Hyun Kim, **Juho Kim**, Maneesh Agrawala.  
*Stanford HCI + Design Open House.*
- [p.27] Organic Crowdsourcing Systems.  
**Juho Kim**.  
*AAAI 2016 Spring Symposium: Intelligent systems for supporting distributed human teamwork.*
- [p.26] Mitigating Smartphone Interruptions During Social Interactions.  
Chunjong Park, Junsung Lim, **Juho Kim**, Sung-Ju Lee, Dongman Lee.  
*ACM HotMobile 2016: The Seventeenth Workshop on Mobile Computing Systems and Applications.*
- [p.25] Learnersourcing: Improving Video Learning with Large-Scale Interaction Data.  
**Juho Kim**.  
*CSAIL Alliance Program 2015 Annual Meeting.*
- [p.24] SPEDS: A Taxonomy for Crowdsourcing in Education.  
Piotr Mitros & **Juho Kim**.  
*CSCL 2015 Workshop on Designing Futures for Learning in the Crowd.*
- [p.23] BudgetWiser: Gamification Design Opportunities in the Government Budget Domain.  
Nam Wook Kim, Jihee Kim, **Juho Kim**, Chang Won Lee, Eun-Young Ko, Jonghyuk Jung.  
*CHI 2015 Workshop on Researching Gamification.*
- [p.22] BudgetMap: Issue-Driven Navigation for a Government Budget.  
Nam Wook Kim, Chang Won Lee, Jonghyuk Jung, Eun-Young Ko, **Juho Kim**, Jihee Kim.  
*CHI 2015 Extended Abstracts.*

- [p.21] Understanding Learners' General Perception Towards Learning With MOOC Classmates: An Exploratory Study.  
Soon Hau Chua, **Juho Kim**, Toni-Jan Keith Monserrat, Shengdong Zhao.  
*Learning at Scale 2015 poster.*
- [p.20] Supporting Instructors in Collaborating with Researchers using MOOClets.  
Joseph Jay Williams, **Juho Kim**, Brian C. Keegan.  
*Learning at Scale 2015 poster.*
- [p.19] Using and Designing Platforms for In Vivo Educational Experiments.  
Joseph Jay Williams, Korinn Ostrow, Xi Xiong, Elena Glasman, **Juho Kim**, Samuel Maldonado, Justin Reich, Neil Heffernan.  
*Learning at Scale 2015 poster.*
- [p.18] The MOOClet Framework: Improving Online Education through Experimentation and Personalization of Modules.  
Joseph Jay Williams, Na Li, **Juho Kim**, Jacob Whitehill, Samuel Maldonado, Mykola Pechenizkiy, Larry Chu, Neil Heffernan.  
*Social Science Research Network (SSRN) Online, November 12, 2014. SSRN ID: 2523265.*
- [p.17] Connecting Collaborative & Crowd Work with Online Education.  
Joseph Jay Williams, Markus Krause, Praveen Paritosh, Jacob Whitehill, Justin Reich, **Juho Kim**, Piotr Mitros, Neil Heffernan, Brian C. Keegan.  
*CSCW 2015 Workshop Program.*
- [p.16] Incorporating Collaborative Learning Into xMOOCs: A Proposal of Future Research Directions.  
Soon Hau Chua, **Juho Kim**, Toni-Jan Keith Monserrat, Shengdong Zhao.  
*CSCW 2015 Workshop on Connecting Collaborative & Crowd Work with Online Education.*
- [p.15] The MOOClet Framework: Improving Online Education through Experimentation and Personalization of Modules.  
Joseph Jay Williams, Na Li, **Juho Kim**, Jacob Whitehill, Samuel Maldonado, Mykola Pechenizkiy, Larry Chu, Neil Heffernan.  
*NIPS 2014 Workshop on Human Propelled Machine Learning.*
- [p.14] Learnersourcing: Improving Video Learning with Collective Learner Activity.  
**Juho Kim.**  
*HCOMP 2014 Workshop on Crowdsourcing, Online Education, and Massive Open Online Courses.*
- [p.13] Leveraging video interaction and content to improve video learning.  
**Juho Kim**, Shang-Wen (Daniel) Li, Carrie J. Cai, Krzysztof Z. Gajos, Robert C. Miller.  
*CHI 2014 Workshop on Learning Innovation at Scale.*
- [p.12] Interaction peaks and data-driven interfaces for online lecture videos.  
**Juho Kim.**  
*Quanta-CSAIL 2014 workshop poster.*
- [p.11] Enhancing how-to videos with crowdsourcing and learnersourcing.  
**Juho Kim.**  
*Quanta-CSAIL 2014 workshop poster.*
- [p.10] Cobi: community-informed conference scheduling.  
**Juho Kim**, Haoqi Zhang, Paul André, Lydia B. Chilton, Anant Bhardwaj, David Karger, Steven P. Dow, Robert C. Miller.

*HCOMP 2013 demo.*

[p.9] User interfaces and crowdsourcing workflows for enhancing the video learning experience.

**Juho Kim**, Phu Nguyen, Robert C. Miller, Krzysztof Z. Gajos.

*SoCS 2013 Doctoral Symposium.*

[p.8] Learnersourcing subgoal labeling to support learning from how-to videos.

**Juho Kim**, Robert C. Miller, Krzysztof Z. Gajos.

*CHI2013 Extended Abstracts. (32% acceptance rate)*

[p.7] ToolScope: enhancing the learning experience of how-to videos.

**Juho Kim.**

*CHI2013 Extended Abstracts. (32% acceptance rate)*

**2nd place, Student Research Competition.**

[p.6] Generating annotations for how-to videos using crowdsourcing.

Phu Nguyen, **Juho Kim**, Robert C. Miller.

*CHI2013 Extended Abstracts. (32% acceptance rate)*

[p.5] Cobi: communitysourcing large-scale conference scheduling.

Haoqi Zhang, Paul André, Lydia Chilton, **Juho Kim**, Steven P. Dow, Robert C. Miller, Wendy MacKay, Michel Beaudouin-Lafon.

*CHI2013 Interactivity. (32% acceptance rate)*

[p.4] Mechanical Turk is Not Anonymous.

Matthew Lease, Jessica Hullman, Jeffrey P. Bigham, Michael S. Bernstein, **Juho Kim**, Walter S. Lasecki, Saeideh Bakhshi, Tanushree Mitra, Robert C. Miller.

*Social Science Research Network (SSRN) Online, March 6, 2013. SSRN ID: 2228728.*

[p.3] Photoshop with friends: a synchronous learning community for graphic design.

**Juho Kim**, Ben Malley, Joel Brandt, Mira Dontcheva, Diana Joseph, Krzysztof Z. Gajos, Robert C. Miller.

*CSCW 2012 Interactive Demo.*

[p.2] Crowdsourcing interface for collecting correspondences of web pages.

**Juho Kim**, Ranjitha Kumar, Scott R. Klemmer.

*UIST 2009 Poster.*

[p.1] Automatic retargeting of web page content.

Ranjitha Kumar, **Juho Kim**, Scott R. Klemmer.

*CHI 2009 Extended Abstracts.*

## **Unpublished Manuscripts and Tech Reports**

[u.2] Learning Graphic Design Skills on the Web: Challenges in Locating, Understanding, and Employing External Help.

**Juho Kim**, Benjamin Malley, Joel Brandt, Mira Dontcheva, Diana Joseph, Krzysztof Z. Gajos, Robert C. Miller.

*Unpublished Manuscript, 2011.*

[u.1] ReadWriter: Task Automation and Feedback Support for Bloggers with Inline Syntax [[ ]].

**Juho Kim**, Chen-Hsiang Yu, Robert C. Miller, Krzysztof Z. Gajos.

*Unpublished Manuscript, 2011.*

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## **TEACHING**

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### **Instructor**



- Introduction to Human-Computer Interaction (KAIST CS374) Spring 2018
- Computer Science Project (KAIST CS408) Spring 2018
- Crowdsourcing & Social Computing (KAIST CS492): 29 students Fall 2017
- Introduction to Human-Computer Interaction (KAIST CS374): 74 students Spring 2017
- School of Computing Colloquium (KAIST CS966/986), with Dongman Lee Spring 2017
- Crowdsourcing (KAIST CS492): 22 students Fall 2016
- User Interface Design (MIT 6.813/6.831), with Robert C. Miller: 200 students Spring 2015

#### Teaching Assistant

- User Interface Design (MIT 6.813/6.831) for Robert C. Miller Spring 2012

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### ADVISING & MENTORING

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#### Current Ph.D. Students

- **Minsuk Chang** (Ph.D. student at KAIST) Mar.2016–Present
- **Sung-Chul Lee** (Ph.D. student at KAIST, Co-advised by Jihee Kim) Aug.2016–Present

#### Current M.S. Students

- **Hyungyu Shin** Mar.2017–Present
- **Hyeungshik Jung** Mar.2017–Present
- **Seoyoung Kim** Jul.2017–Present
- **Paul Grau** (M.S. student at KAIST/TU Berlin dual-degree program) Sep.2016–Present
- **Hyunwoo Kim** Sep.2017–Present
- **Eunyoung Ko** Mar.2018–Present
- **Kyung Je Jo** Mar.2018–Present

#### Undergraduate / Visiting Student Mentoring

- **Mercedes Huertas** (Univ. of Trento, Italy) Jan.2018–Present
- **Hyunjong Lee** (KAIST) Dec.2017–Present
- **Jiyoun Ha** (KAIST URP) Dec.2017–Present
- **Tae Soo Kim** (KAIST) Dec.2017–Present
- **Hyoungwook Jin** (KAIST) Dec.2017–Present
- **Seayeon Lee** (KAIST) Dec.2017–Present
- **Arti Thakur** Sep.2017–Present
- **Leonore Guillain** (EPFL) Jun.2017–Sep.2017
- **Amy Han** (Swarthmore College) Jun.2017–Sep.2017
- **Beomsu Kim** (KAIST) Jun.2017–Dec.2017
- **Hyunsuk Shin** (KAIST) Jun.2017–Sep.2017
- **Wookjae Byun** (KAIST) Jun.2017–Aug.2017
- **Suhwan Jee** (KAIST) Jun.2017–Sep.2017
- **Jooyoung Lee** (KAIST) Jun.2017–Nov.2017
- **Ina Ryu** (KAIST) Jun.2017–Dec.2017
- **Hyunwoo Kim** (KAIST) Mar.2017–Aug.2017
- **Eric Kim** (KAIST) Mar.2017–Jun.2017
- **Eunyoung Ko** (M.S. student at SNU) Mar.2017–Feb.2018
- **Jonghyuk Jung** (KAIST) Mar.2017–Oct.2017
- **John Joon Young Chung** (SNU) Mar.2017–Present
- **Jean Young Song** (Ph.D. student at University of Michigan) Jan.2017–Present
- **Ray Hong** (Ph.D. student at UW) Sep.2016–Present

- **Jaesung Huh** (SNU) Jan.2017–Feb.2017
- **Deokseong Kim** (KAIST) Jan.2017–Feb.2017
- **Kyung Je Jo** (KAIST URP) Jan.2017–Feb.2018
- **Soyeon Park** (KAIST) Sep.2016–Aug.2017
- **Ching (Jean) Liu** (NTHU Taiwan, co-mentoring with Hao-Chuan Wang) Sep.2016–Jun.2017
- **Juho Sun** (KAIST) Sep.2016–Dec.2016
- **Hyungyu Shin** (SNU) Jul.2016–Feb.2017
- **Hyeungshik Jung** (POSTECH) Jul.2016–Feb.2017
- **Dongkwan Kim** (KAIST) Jul.2016–Dec.2016
- **Jiwoo Park** (KAIST) Jul.2016–Dec.2016
- **Taekyung Park** (SNU) Jul.2016–Aug.2016
- **Hyun Sung Cho** (KAIST URP) Dec.2015–Dec.2016

#### **Undergraduate Graduation Research Advisor**

- **Hyoungcheol Moon** (KAIST) Fall 2017
- **Dongkwan Kim** (KAIST) Fall 2017
- **Ina Ryu** (KAIST) Fall 2017

#### **Ph.D. Thesis Committee**

- **Dajung Kim** (KAIST Industrial Design)
- **Jaeyeon Lee** (KAIST School of Computing)
- **Byung Hyung Kim** (KAIST School of Computing)
- **Ingeon Shin** (KAIST Industrial Design)
- **Bokyung Lee** (KAIST Industrial Design)

#### **Other Research Mentoring**

- **Yoo Jin Lim** (former Ph.D. student at KAIST) Sep.2016–Feb.2017
- **Dae Hyun Kim** (Ph.D. student at Stanford) Jan.2016–Present  
Text-Chart Reference Inference. Co-mentoring with Maneesh Agrawala at Stanford.
- **Vivian Hare** (Undergraduate at Stanford) Jan.2016–Jun.2016  
Cooking Recipe Mining at Scale. Co-mentoring with Maneesh Agrawala at Stanford.
- **Janel Lee** (Undergraduate at Stanford) Sep.2015–Jun.2016  
Deeply Linked Multimedia Library. Co-mentoring with Maneesh Agrawala at Stanford.
- **Chunjong Park, Joonseong Lim** (M.S. students at KAIST) Aug.2015–May 2016  
Social Context Awareness Support ([c.21]). Co-mentoring with Sung-Ju Lee and Dongman Lee at KAIST.
- **Soon Hau Chua** (Ph.D. student at National University of Singapore) Jun.2014–Present  
Discussion Support for MOOCs. Co-mentoring with Shengdong Zhao at NUS. ([p.21])
- **Peter Githaiga** (UROP, undergraduate at MIT) Nov.2014–May 2015  
Integrating LectureScape into the edX platform. Co-mentored with Piotr Mitros at edX.
- **Nam Wook Kim** (Ph.D. student at Harvard SEAS), Eunyoung Ko, Chang Won Lee, Jonghyuk Jung, Blaire Han, Hyun Sung Cho (Undergraduates at KAIST) Dec.2013–Present  
BudgetWiser: Crowdsourcing budgetary opinions and promoting online discussions. ([c.18][c.15][p.23][p.22])  
Co-mentoring with Jihee Kim at KAIST.
- **Sarah Weir** (Super UROP, undergraduate at MIT) Sep.2013–May 2014  
Applied learnersourcing to label subgoal structure from how-to videos ([c.13]). Sarah won 2nd place in Student Research Competition at CHI2014 & Robert M. Fano UROP Award at MIT EECS.
- **Carolyn Chang & Danny Sanchez** (Undergraduates at MIT) Jul.2013–Aug.2013  
Lecture video annotation tool (part of 6.mitx).

- **Megan O’Leary & Joseph Hanley** (Undergraduates at MIT) Jul.2013–Aug.2013  
edX student activity visualization (part of 6.mitx).
- **Michelle Johnson & Ashley Cho** (Undergraduates at MIT) Jul.2013–Aug.2013  
edX grade distribution visualization (part of 6.mitx).
- **Phu Nguyen** (Super UROP, undergraduate at MIT) Sep.2012–May 2013  
Crowdsourcing step-by-step information from how-to videos ([c.9][p.6]).

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## INVITED TALKS

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### **Introduction to HCI**

- Open KAIST Nov. 3, 2017

### **Interaction at scale**

- CSE Department, Seoul National University Feb. 6, 2018
- Kyungpook National University Sep. 22, 2017
- TAICHI 2017 Panel Aug. 11, 2017
- Civil & Environmental Engineering, Seoul National University Jun. 9, 2017
- Korean Society for Cognitive Science May 27, 2017
- Software Graduate Program, KAIST May 2, 2017
- Freshman Seminar (HSS190), KAIST Apr. 26, 2017
- Keynote at LG Electronics UX Conference 2016 Oct 4, 2016

### **Technology for collective action**

- Vanilla Forum, KAIST Mar. 23, 2017
- Ministry of the Interior, Korean Government Mar. 17, 2017

### **Recipe mining at scale**

- Brown Institute Media Innovation Showcase 2016, Stanford University Sep. 29, 2016

### **Multimedia for personal narratives: Working with the Doug Engelbart archives**

- The #mediaX2016 Conference, Stanford University May 17, 2016

### **Organic crowdsourcing systems**

- AAAI Spring 2016 Symposium Mar. 22, 2016
- Social Algorithms Lab, Stanford University Jan. 27, 2016

### **Video interaction analytics**

- Lytics Seminar Class (EDUC 407), Stanford University Jan. 28, 2016

### **Learnersourcing: Improving video learning with collective learner activity**

- Industrial and Systems Engineering, KAIST May 24, 2017
- Education Research Institute, Seoul National University Jan. 12, 2017
- School of Computing Colloquium, KAIST Sep. 26, 2016
- University of Washington CSE Seminar May 18, 2016
- CMU Crowdsourcing Lunch Seminar Dec. 1, 2015
- Graphics Café, Stanford University Oct. 29, 2015
- Berkeley Institute of Design Oct. 27, 2015
- Udemy Sep. 2, 2015
- MIT EECS Thesis Defense Jul. 30, 2015

- Graphics Group, MIT CSAIL May 6, 2015
- Post-CHI Workshop, KAIST Apr. 24, 2015
- Computer Science, KAIST Apr. 15, 2015
- Department of Information Convergence, Seoul National University GSCST Apr. 13, 2015
- Microsoft Research Mar. 31, 2015
- Computer Science & Engineering, University of Michigan Mar. 10, 2015
- Information Science, Cornell University Feb. 25, 2015
- Creative Technologies Lab, Adobe Research Feb. 12, 2015

### **Data-driven interaction techniques for improving navigation of educational videos**

- Boston University Image and Video Computing group seminar Oct. 27, 2014
- HarvardX Research Colloquium Sep. 26, 2014

### **The future of video**

- Samsung Economics Research Institute Dec. 30, 2013

### **Video learning at scale with crowdsourcing and learnersourcing**

- UVR Lab, Graduate School of Culture Technologies, KAIST Dec. 27, 2013
- Dept. of Knowledge Service Engineering, KAIST Dec. 23, 2013
- UI/UX Inventor Club, Korea Dec. 20, 2013
- Korean Society of Design Science Seminar Series, Sungkyunkwan University Dec. 19, 2013
- HCI Lab, Seoul National University Dec. 17, 2013

### **Enhancing the learning experience of how-to videos**

- Graphics Group, MIT CSAIL Apr. 10, 2013
- edX Learning Sciences Team Mar. 7, 2013
- Computer Science Department, KAIST Dec. 21, 2012
- ROSAEC Seminar Series, Seoul National University Dec. 18, 2012
- Epoch Foundation @ MIT Oct. 17, 2012

### **Online education and massive open online courses (MOOCs)**

- Open Entrepreneur Center Dec. 27, 2012
- Todam: Boston Korean Students Meeting Oct. 13, 2012
- Samsung Scholarship Open Talk Jun. 26, 2012

### **Crowdsourcing: engineering collective intelligence**

- Korean Society of Design Science Seminar Series, Yonsei University Dec. 20, 2012
- Department of Software, Sungkyunkwan University Jul. 3, 2012
- Young Generation Technical and Leadership, KSEA Jan. 6, 2012
- Todam: Boston Korean Students Meeting Oct. 8, 2011
- Samsung Scholarship Open Talk Jun. 29, 2011

### **Creativity support tools**

- HCI Lab, Seoul National University Jan. 4, 2011
- Department of Information Convergence, Seoul National University GSCST Jan. 5, 2011

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## **SELECTED PRESS**

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**The KAIST Herald** | 2017.10.19

KAIST Rallies Against Slow Internet  
<http://herald.kaist.ac.kr/news/articleView.html?idxno=1489>

**EBS DocuPrime** | 2017.9.20  
4차 산업혁명 시대 교육대혁명: 3부. 대학, 변해야 산다  
<http://home.ebs.co.kr/docuprime/newReleaseView/345>

**KAIST Breakthroughs** | 2017.09.01  
SCAN: Social context-aware smartphone notification system  
[http://breakthroughs.kaist.ac.kr/?post\\_no=913](http://breakthroughs.kaist.ac.kr/?post_no=913)

**ETNews (전자신문)** | 2017.08.08 (Korean)  
상황에 따라 스마트폰 알림 조절해주는 앱 나온다...KAIST, 인공지능 활용 SCAN 기술 개발  
<http://www.etnews.com/20170807000268>

**ETNews (전자신문)** | 2017.07.10 (Korean)  
[KAIST AI를 선도한다]<에필로그>KAIST AI 기술 분류는 전산학부  
<http://www.etnews.com/20170710000276>

**ETNews (전자신문)** | 2017.06.06 (Korean)  
AI로 맞춤형 영상콘텐츠 서비스 한다...KAIST, '집단지성' 기반 영상 서비스 기술 개발  
<http://www.etnews.com/20170605000179>

**KAIST Times (카이스트신문)** | 2017.05.16 (Korean)  
사람: 전산학부 김주호 교수  
<http://times.kaist.ac.kr/news/articleView.html?idxno=3943>

**ETNews (전자신문)** | 2017.05.01 (Korean)  
[KAIST AI를 선도한다] AI는 학제 간 연구 가능성 높여 주는 기반 기술  
<http://m.etnews.com/20170428000285>

**KAIST Times (카이스트신문)** | 2017.03.28 (Korean)  
답답한 인터넷 속도, 이번에는 개선될까  
<http://times.kaist.ac.kr/news/articleView.html?idxno=3885>

**New Scientist** | 2017.03.23  
Phone learns to send app notifications only when you want them  
<https://www.newscientist.com/article/2125669-phone-learns-to-send-app-notifications-only-when-you-want-them/>

**Stanford Daily** | 2016.09.30  
Brown Institute showcase features tour guide drones, defense contract database  
<http://www.stanforddaily.com/2016/09/30/brown-institute-showcase-features-tour-guide-drones-defense-contract-database/>

**CBC Radio: Spark** | 2015.02.20  
Crowdsourcing better how-to videos  
<http://www.cbc.ca/radio/spark/276-william-gibson-banner-ads-as-art-crowdsourcing-better-how-to-videos-and-more-1.2965079/crowdsourcing-better-how-to-videos-1.2965157>

**BostInno** | 2015.02.16  
MIT Study Shows How Educational Videos Could Be Better  
<http://bostinno.streetwise.co/2015/02/16/mit-study-shows-how-educational-videos-could-be-better/>

**MIT News Office** | 2015.02.11  
Better how-to videos  
<http://newsoffice.mit.edu/2015/better-how-to-videos-0211/>

**Fast Company Design** | 2015.01.29  
MIT Students Redesign The How-To Video, In 4 Easy Steps  
<http://www.fastcodesign.com/3041579/mit-students-redesign-the-how-to-video-in-4-easy-steps/>

**Forbes** | 2014.08.11  
MIT Team Turns 6.9 Million Clicks Into Insights To Improve Online Education  
<http://www.forbes.com/sites/peterhigh/2014/08/11/mit-team-turns-6-9-million-clicks-into-insights-to-improve-online-education/>

**eCampus News** | 2014.08.05

Learning from MOOC mistakes, one click at a time  
<http://www.ecampusnews.com/top-news/mooc-learning-767/>

**TICBeat** | 2014.08.02 (Spanish)

El MIT investiga el camino hacia el aprendizaje online más eficiente  
<http://www.ticbeat.com/tecnologias/mit-investiga-aprendizaje-online-eficiente/>

**Bostinno** | 2014.07.31

MIT-Spun 'YouTube for MOOCs' is Solving a Major Problem Plaguing Online Education  
<http://bostinno.streetwise.co/2014/07/31/how-do-online-learners-watch-videos-lecturescape-mits-youtube-for-moocs-516442/>

**News Peppermint** | 2014.07.29 (Korean)

온라인 교육의 성패를 가르는 요인들  
[http://newspeppermint.com/2014/07/29/online\\_education/](http://newspeppermint.com/2014/07/29/online_education/)

**MIT News Office** | 2014.07.28

What 6.9 million clicks tell us about how to fix online education  
<http://newsoffice.mit.edu/2014/what-69-million-clicks-tell-us-about-how-fix-online-education/>

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## ACADEMIC SERVICES

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### Departmental Committees

- Public Relations 2016–Present
- Future Planning 2016, 2018–Present
- Graduate Admissions 2016–Present

### Program Committee (meta reviewer)

- CHI 2018 (Subcommittee: Special Application Areas) + Best paper committee
- CSCW 2018
- UIST 2017
- CSCW 2017 (Systems subcommittee)
- Learning at Scale 2015-2017
- CHI 2015 Works-in-Progress

### Program Committee (review only)

- Learning at Scale 2018
- Linked Democracy: AI for Democratic Innovation (IJCAI 2017 Workshop)
- HCOMP 2016
- WWW 2016
- IUI 2016
- HCI Korea 2016-2017

### Reviewer

- CHI 2008-2018
- UIST 2012 & 2014-2017
- CSCW 2008 & 2011-2018
- DIS 2018
- MobileHCI 2014-2016
- SIGGRAPH Asia 2015
- InfoVis 2015
- GI 2015-2016
- ICWSM 2014
- EDM 2014

- HCOMP 2013
- IWIC 2009
- Journals: FnTHCI, UMUAI, Journal of Selected Topics in Signal Processing, IJAIED, Journal of the HCI Society of Korea

**Demos Co-Chair** – UIST 2017-2018  
**Posters Co-Chair** – UIST 2015-2016  
**Doctoral Consortium Co-Chair** – HCI Korea 2018  
**Workshop Organizer** – Crowdsourcing Law and Policy (CSCW 2017)  
**Head Organizer** – KAIST@HCI Seminar Series 2016–Present  
**Conference Organizer** – Webmaster (CHI 2015)  
**Conference Organizer** – Scheduling + communitysourcing (CHI 2013-2015, CSCW 2014-2015)  
**Workshop Organizer** – Connecting Collaborative & Crowd Work with Online Education (CSCW 2015)  
**Workshop Organizer** – CrowdCamp (HCOMP 2013-2014)  
**Faculty Mentor** – KAIST Presidential Fellow 2017  
**Student Volunteer** – CHI 2010-2012, UIST 2012, CSCW 2013, APCHI 2008  
**Head of Digital Learning Subcommittee** – MIT Graduate Student Council 2013–2014  
**Organizer** – Todam interdisciplinary weekly seminar 2012–2014  
**Organizer** – MIT CSAIL HCI Seminar Series 2011–2015  
**Organizer** – BostonCHI Labs Research Consortium 2011–2015  
**President** – MIT EECS Korean Graduate Student Association 2012–2013

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## REFERENCES

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**Robert C. Miller**

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Associate Professor, Harvard University  
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