

초청강연

## Video Interaction at Scale

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### 강연 내용

The field of human-computer interaction is witnessing an increasing number of “interaction at scale” systems, in which a massive group of users interact via technology to collaborate, learn, discuss, share information, and make decisions. Three driving forces of interaction at scale are crowds, data, and AI: Crowdsourcing tackles complex problems by involving a large group of people via microtasks and coordination, data-driven interaction techniques leverage large-scale data to create new user experiences, and AI-powered interaction enables more intelligent and adaptive UIs.

In this talk, I'll present a few novel interactive systems designed to support “video learning at scale”. While millions of learners today are watching videos on online platforms, existing video interfaces are not designed to support learning, with limited interactivity and lack of information about learners' engagement and content. Making these improvements requires deep semantic information about video that even state-of-the-art AI techniques cannot fully extract. I take a data-driven approach to addressing this challenge, using large-scale learning interaction data to dynamically improve video content and interfaces. Specifically, my research introduces learnersourcing, a form of crowdsourcing in which learners collectively contribute novel content for future learners while engaging in a meaningful learning experience themselves. I will present learnersourcing applications designed for massive open online course videos and how-to tutorial videos. These systems demonstrate how learnersourcing can enable more interactive, collaborative, and data-driven learning. I will discuss design implications and future directions of relevance to the graphics research community.

### 강연자 이력

Juho Kim [[juhokim.com](http://juhokim.com)] is an Assistant Professor in the School of Computing at KAIST, and directs KIXLAB (the KAIST Interaction Lab) [[kixlab.org](http://kixlab.org)]. His research in human-computer interaction focuses on building interactive systems that support interaction at scale: crowdsourcing and human computation, online education and learning at scale, civic engagement and collective action, and interactive data analytics and mining. He creates interactive and collaborative technology that empowers conventionally passive populations -- students receiving instruction and citizens influenced by social issues -- to be active and self-directed participants who initiate deeper learning and collective action. He earned his Ph.D. from MIT in 2015, M.S. from Stanford University in 2010, and B.S. from Seoul National University in 2008. In 2015-2016, he was a Visiting Assistant Professor and a Brown Fellow at Stanford University. He is a recipient of 10 paper awards from ACM CHI, ACM Learning at Scale, ACM IUI, and AAAI HCOMP, and the Samsung Fellowship.