

Featured Keynote Lecture

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Gamification or Crowd Sourcing for Human Computing

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Abstract. Multiplayer online game or social gaming is a new multifaceted medium of communication to reach the masses (players) effectively that fosters healthy interaction and team cohesion. Recent multiplayer online game, FoldIT (Univ. of Washington) enabled ordinary game players to play for leisure while their intuitive and collaborative efforts has lead to unlocking of the structure of an AIDS-related enzyme that scientific community had been unable to unlock for a decade. Similarly, Google's image labeling game (licensed from CMU's ESP game) utilizes human's instinctual power of intuition to perform a computational task--a task computer has yet to succeed--all through playing an interactive multiplayer online game while Google collects all of the meaningful labels for image searches. These approaches, called Crowd Computing, make use of social interaction and competition tendencies to engage massive players to work together to achieve the intended objectives. 'World of Balance' is an educational multiplayer online game designed to promote the concept of ecosystem nurturing using scientific population dynamics simulation engine as backend. This game opens a mutually beneficial communication

channel between biologists and masses (players). Players benefit by entertaining nurturing game and learning important aspects of ecosystem development and food-web stability while producing huge scientific data, useful for biologists to analyze population dynamics model and significantly infeasible for biologists to produce. The presentation focuses on the motivation, the current stage of the game and the challenges that the game development is facing now.

About Prof. Ilmi Yoon:

Dr. Ilmi Yoon is an Associate Professor in the Computer Science Department at San Francisco State University. She earned both her MS and Ph.D. degrees in Computer Science at the University of Southern California at Los Angeles in 1996 and 2000. She studied at CGIT Laboratory (Computer Graphics and Immersive Technologies) with Prof. Ulrich Neumann in the Computer Science Department at the University of Southern California. Her focus was on "Web-based Remote Rendering using Image-Based Rendering Techniques." Her research interests are interactive online media, Network Visualization, Serious Game and Crowd Computing. She



has developed FoodWeb visualization for NSF DBI projects and Azure-based cloud computing with Microsoft grant. She currently works on cross-platform, cross-browser GUI development on Genentech project and Multiplayer Online Game Development on NSF TUES project.