IMS Public Lecture

Real people, virtual worlds: watching a plague unfold

Speaker: Professor Nina Fefferman
Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) at Rutgers University and the Co-Director of the Tufts University School of Medicine Initiative for the Forecasting and Modeling of Infectious Diseases

Date: Monday, 29 October 2007

Time: 6:30 PM – 7:30 PM

Venue: LT31, Faculty of Science
Block S16, Science Drive 1
National University of Singapore
Singapore 117543

About the Speaker

Professor Nina Fefferman is an Assistant Research Professor at the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) at Rutgers University and the Co-Director of the Tufts University School of Medicine Initiative for the Forecasting and Modeling of Infectious Diseases. She holds bachelor's and master's degrees in mathematics and a Ph.D. in biology. She has been a consultant to the U.S. Department of Defense, Defense Advanced Research Projects Agency, National Defense University, and has worked closely with the US Department of Homeland Security, all in the areas of biodefense.

Abstract

Infectious disease passes from person to person, from friend to friend, from parent to child, from shopkeeper to customer. Basic social interactions, necessary in every day life, can suddenly become themselves life-threatening in outbreaks of deadly disease. One of the fundamental problems in understanding how diseases will spread, and how that spread will affect society, is understanding how people will (possibly) change their behaviors in the face of an outbreak. In 2005, an accidental plague unleashed in the game world, "World of Warcraft (R)" (by Blizzard Entertainment, Inc.), provided a first glimpse of how scientists might be able to exploit these virtual game worlds to study how people react socially to communal threat from infectious disease.

As recently reported in the Lancet Infectious Diseases (and covered by BBC World News, the Associated Press, and Reuters news agencies, among others) we will discuss what current mathematical models of disease spread can predict about disease, and how these virtual games may be able to help us all plan for global pandemics.

Screenshot courtesy of Blizzard Entertainment, Inc.

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