

Eliminating Information Overload



Niklas Elmqvist

Associate Professor, Electrical and Computer Engineering Associate Professor, College of Information Studies

CURRENT RESEARCH

Developing efficient visualizations and simplifying information presentation

While growing up in Sweden, Dr. Niklas Elmqvist of the University of Maryland enjoyed an interest in Nintendo gaming systems and video games in general. One day his father replaced the Nintendo with a Commodore 64, an early home computer complete with keyboard and what was then a high-resolution display. It didn't take Dr. Elmqvist long before he realized that he could extend his gaming interests to building games himself. This began a passion for programming and game development that continued through his tenure at university. While game development seemed to be the most logical career path upon completing his undergraduate degree, Dr. Elmqvist was hesitant to abandon the academic atmosphere he had learned to love and chose instead to pursue his Ph.D. Today, he is able to work as an associate professor at the University of Maryland in the United States and retain the scientific work environment while still exploring his true passion in computer graphics and human-computer interaction.

With the exponential growth of technology and its capacity to store permanent records of all of its computational data, we are facing a world of constant information overload. Valuable information and insights are often hidden in this flood of data, but the sheer volume and complexity of the data makes it difficult for humans to uncover these insights. Dr. Elmqvist believes that visualization can help in this process by using interactive graphical representations to aid the user's understanding. Vision is our most powerful sensory system and allows people to quickly see trends, patterns, and outliers in such visual representations; after all, as the old saying goes, "picture is worth a thousand words".

Some examples...

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AFFILIATION



University of Maryland College Park Campus

EDUCATION

- Ph.D. in Computer Science 2006 , Chalmers University of Technology, Sweden
- Masters in Computer Science and Engineering 2001 , Chalmers University of Technology, Sweden
- Bachelors in Computer Science and Engineering 2001 , Chalmers University of Technology, Sweden

AWARDS

- Purdue Graduate Student Mentoring Award
- NSF Career
- Best Paper Award
- IEEE TVCG Best Reviewer Award
- IEEE Senior Membership

RESEARCH AREAS

Technology, Informational Sciences / Internet, IOT, Devices, Data

FUNDING REQUEST

Your contributions will support the development of research and prototypes into actual, functioning software that people can readily use. Research into novel areas such as proxemics and mobile computing require purchasing state-of-the-art equipment. Finally, contributions will also be directed towards acquiring capable personnel.