Designing Software Tools that Work the Way Developers Do

André van der Hoek
Professor, Informatics

CURRENT RESEARCH

Studying how software developers work leads to better software for everyone
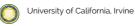
Software development has reached an interesting paradox: while software has contributed to incredible advances in just about every discipline imaginable, software developers have kind of forgotten about themselves - the tools they use today still resemble the tools they used decades ago. Herein lies a key challenge: what tools can help developers be more creative and productive, so they can deliver software to everyone everywhere that is more suited for the job, more user friendly, and of higher quality? Dr. André van der Hoek, Professor of Informatics at the University of California, Irvine, is driven by the desire to address this challenge. He particularly seeks to assist developers with innovative new software tools that match how they wish to - and typically how they try to - work on a daily basis. His results are both immediate, in terms of small but critical enhancements to existing tools, and more long-term, in terms of visionary new approaches that radically change how software is developed altogether.

Perhaps most unique about Dr. van der Hoek is the fact that he immerses himself in current practice, studying actual software developers engaged in their actual work at companies as diverse as Boeing, IBM, HP, Hitachi, Appirio, Adobe, and others. By spending time with the developers and closely observing what they do, Dr. van der Hoek has been able to unearth previously invisible practices and design novel tools that support those practices. Further distinguishing his research, Dr. van der Hoek brings the newly designed tools back to the very organizations he studies, with direct and widespread impact. Dr. van der Hoek's is equally passionate about education. Through the design of educational games...

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AFFILIATION

University of California, Irvine

EDUCATION

- Ph.D., in Computer Science, 2000 , University of Colorado at Boulder

AWARDS

- 2014 - Nick Mangano, Ph.D. student advised by Dr. van der Hoek, wins the ACM SIGSOFT Outstanding Dissertation Award
- 2013 - ACM Distinguished Scientist
- 2009 - Premier Award for Excellence in Engineering Education Courseware
- 2005 - UC Irvine, Professor of the Year
- 2002 - UC Irvine Chancellor's Award for Excellence in Undergraduate Research
- and 1 more...

RESEARCH AREAS

Technology

FUNDING REQUEST

Your contributions support Dr. van der Hoek and his students in their pursuit of creating a deep understanding of how software developers actually work, and designing new software tools with sophisticated capabilities that respond to the difficulties the developers encounter in their work. In choosing to donate, you accelerate the team's ability to study, design, and make widely available new software tools that help developers be more creative and productive.