

A Pragmatic Perspective on Software Visualization

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ABSTRACT

For software visualization researchers taking the pragmatic philosophical stance, the ultimate measure of success is adoption in industry. For you as researcher, what can be more satisfying than enthusiastic developers being able to work better and more efficiently thanks to your beautiful visualization of their software?

One of the aims of this talk is to reflect on factors affecting impact in practice of software visualization research. How does rigorous empirical evaluation matter? What is the role of foundational research that does not subscribe to the philosophy of pragmatism? Can we make meaningful predictions of adoption in practice if this takes 10 years or more?

During the talk, I will illustrate the dilemmas, opportunities, and frustrations involved in trying to achieve practical impact with examples drawn from my own research in such areas as software architecture analysis, documentation generation, and Web 2.0 user interface reverse engineering.

I will also shed light on some of my most recent research activities, which includes work in the area of *spreadsheet comprehension*. This is research that we conduct with a major (Dutch) financial asset management firm. Our work consists of the identification of information needs for professional spreadsheet users, a visualization to address these needs, and an evaluation of this visualization with practitioners conducting real-life spreadsheet tasks.

Throughout the talk, I will encourage the audience to engage in the discussion, and contribute their own perspectives on the issues that I raise in my talk.

Categories and Subject Descriptors

D.2.6 [Software Engineering]: Programming Environments; H.5.2 [Information Systems Applications]: User Interfaces—*Spreadsheets*; K.6.3 [Management of Computing and Information Systems]: Software Management—*Software maintenance*

General Terms

Human Factors

Keywords

Visualization, adoption, end-user programming

Biography

Arie van Deursen is professor in software engineering at Delft University of Technology where he is the head of the Software Engineering Research Group. Before joining Delft in 2003, he was a senior researcher at CWI, the Dutch National Research Center for Mathematics and Computer Science. He received a PhD from the University of Amsterdam (1994) and a MSc degree from the Vrije Universiteit (1990). His research interests include program comprehension, software visualization, dynamic analysis, software testing, and empirical software engineering.

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