Analysis is Necessary, but Far from Sufficient: Experiences Building and Deploying Successful Tools for Developers and Testers

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Why are there so few successful "real-world" programming and testing tools based on academic research? This talk focuses on program analysis tools, and proposes a surprisingly simple explanation with interesting ramifications.

For a tool aimed at developers or testers to be successful, people must use it - and must use it to help accomplish their existing tasks, rather than as an end in itself. If the tool does not help them get their job done, or the effort to learn and/or use the tool is too great, users will not perceive enough value; the tool will not get significant usage, even if it is free.

This talk focuses on the often-overlooked consequences of this seemingly basic statement in two major areas: program analysis, and the work beyond core analysis that must be done to make a successful tool. Examples will be drawn from tools that have been successfully used in industry (sold commercially, and developed for internal use).