

MobiCASE 2010
Workshop on Mobile Software Engineering
Position Paper Template

Event: October 28, 2010.
Mail paper to wmse@sv.cmu.edu by July 15, 2010.
No more than 2 pages, 11 point font.

Paper title: Zero-latency Development
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Please state your point of view on the issues of Mobile Software Engineering. Please specifically address the following 5 questions:

1. **Your experience as a software engineer?** I started programming 50 years ago and have supervised advanced development projects.
2. **Your experience with mobile software development?** I worked at Google on App Inventor for Android.
3. **How does traditional software engineering relate to the engineering of mobile applications and systems?** Most of the shift to mobile platforms seems to be making development harder, but one aspect—continuous connectivity—can make it easier.
4. **What are the distinguishing features of mobile software specification, architecture, development and testing that need special attention, skills, or innovation?** Zero-latency development
5. **What is the suggested focus and agenda for mobile software engineering research and education?**

Exploiting connectivity the business community fell upon Software as a Service as a much more efficient delivery model. You control the infrastructure of your application and never have to ask a user “What version are you using?” or any other dumb question. You can get daily feedback on bugs and performance, and you can update the software daily, if you dare. A disciplined testing and release process is still essential, but the crushing constraint of selling updates is gone.

Google took the trend one step further by doing continuous interface testing. According to Marissa Mayer, they test interface alternatives by performing controlled experiments on small percentages of their live users. This is far easier than enlisting subjects to watch through one-way mirrors.

The next step is to measure basic user needs and desires continuously. Perhaps 90% of a new app will be measurement code that captures the users’ intentions and requests. Some features might be very rudimentary with the real purpose of measuring users’ desire to use them.

The entire software team—service support, interface designers, engineers, and product managers—can work continuously to develop the product.

To develop this methodology thoughtfully we should carry out pilot projects and develop support tools.