

East Meets West: The Influences of Geography on Software Production

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Abstract

How do software development practices differ from coast-to-coast? What should practitioners learn about the influences of geography – and why is it important?

Each community of software professionals has its own technical biases: preferred programming languages, software tools, design paradigms, software testing approaches, and techniques for collaboration within a working group. Conferences like SPLASH provide an opportunity to compare notes, to learn from the successes (and failures) of others, to learn about new technologies, and to learn about how other groups communicate and collaborate.

This panel will focus on the diversity of software development practices in North America and the broader influences of geography.

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1. Steven Fraser

How do software development practices differ from coast-to-coast? Practitioners need to think about the influences of geography and culture on how they work with others. This panel will focus on the diversity of software development practices in North America and the broader influences of geography.

This panel brings together industry experts from east and west, to discuss topics including preferences for:

- Development tools and environments
- Embracing change – adopting new tools, automated techniques, etc.
- Agile and iterative development approaches
- Reuse assets, COTS, and open source components
- Software methods and quality trade-offs
- Teamwork and preferences for in-office, home-office, and remote-offices
- Innovation – through engineering, in-house research labs, external research, acquisitions
- Techniques for consolidating mergers and acquisitions
- Maximizing organizational learning – through internal conferences, instructor or peer led training, facilitated workshops, and eLearning (video based training, blogs, wikis, etc.)

STEVEN FRASER is an independent consultant on innovation and technology transfer. From 2007 to 2013, Steven was the Director of the Cisco Research Center. His achievements included: increasing the visibility and leverage of Cisco-university research collaborations, increasing the number of PhD/Post-Doc recruits, and accelerating technol-

ogy transfer through the establishment of the Cisco Research Commons and the CTech Forum – a proprietary conference for Cisco Staff. Prior to joining Cisco, Steven was a Senior Staff member of Qualcomm’s Learning Center in San Diego, leading software learning programs and creating the corporation’s internal technical conference (the QTech Forum). Late in the last century, Steven held a variety of technology strategy roles at BNR/ Nortel including: Senior Manager (Disruptive Technology and Global External Research) and Advisor (Design Process Engineering). In 1994 he spent a year as a Visiting Scientist at the Software Engineering Institute (SEI) collaborating with the “Application of Software Models” project on the development of team-based domain analysis software reuse techniques. Steven is a Senior Member of the ACM and the IEEE.

2. Dennis Mancl

The software industry requires its workers to be lifelong learners. Our patterns of work and our patterns of learning about technology are formed as much by our working environment as they are by courses and projects in our college and university training. It is in the work world where we begin to learn how to build commercial software products. We learn through many channels: collaboration with more experienced colleagues, picking up ideas from new staff members who transfer from another company, or doing some self-directed study to experiment with new languages, tools, and methods. I think that there are some significant differences in the patterns of lifelong learning across industries, technologies, and regions. There are some challenges when doing cross-industry or cross-location projects. We learn that different parts of the project team are making different product design tradeoffs or are advocating different development techniques. We must understand some of our own biases to do successful collaborative development.

DENNIS MANCL is a Member of Technical Staff at Alcatel-Lucent in Murray Hill, New Jersey, where he works on software tools and processes to support quality and productivity in the telecom industry. He has been working with technologies from C++ to UML to use cases to agile development in his years as an internal software process consultant for AT&T, Lucent, and Alcatel-Lucent.

3. Aki Namioka

There are a number of cross-cultural issues that can influence how well teams can work together and what tools they use. Ultimately, teams are made up of people, and people are influenced by several factors including their culture, their employers, their employment history, and their co-workers.

In my experience, working for both large multi-national companies and small local companies, there are challenges all over the place. Some examples that I will highlight are:

large vs. small companies, teams that are local vs. remote, agile vs. non-agile organizations, “western” vs. “eastern” cultures, and industry specific cultures.

AKI NAMIOKA has been working in high-tech since 1989.

Her experience includes Boeing, IBM Global Services, and Cisco Systems. She is currently an Engineering Manager for the Seattle-based company Marchex, and has been an Agile Practitioner since 2002.

4. Roberto Salama

ROBERTO SALAMA has an MS in Electrical and Computer Engineering from North Carolina State University. He worked in the area of circuit simulation for a number of years before heading on to financial engineering. Over the last twenty years, Roberto has worked at Goldman Sachs and Morgan Stanley building systems ranging from Fixed Income trading systems to financial analysis interactive platforms to time series systems. His area of interest is the application of emerging technologies, especially in the areas of languages and distributed processing, to financial engineering.

5. Allen Wirfs-Brock

Today, the technology and tools of software development has achieved global ubiquity. Open source tools are available to everyone and we pretty much all use GitHub and educate ourselves via StackOverflow. Many of us work on distributed projects where we may not even be aware of exactly where in the world some of our colleagues live. Yet, software developers are still people and we live and work surrounded by other people who create a culture that influences us. The local tech culture may no longer significantly influence the tools we use, but it still influences how we work and play. This isn’t just about east coast/west coast differences, or a Europe/North America/Asia differences.

For example, there are quite significant differences between the San Francisco Bay area, Portland, and Seattle in how software developers approach work and many developers choose where they live and work based upon these differences. Location is important not because it influences the tools we use, but because it impacts the psyche we bring to work.

ALLEN WIRFS-BROCK is a Mozilla Research Fellow and currently spends most of his time working on evolving the JavaScript programming language and the future of application development. He is project editor for ECMA-262, the JavaScript standard language specification and is currently working on finishing the next edition. He was a pioneering implementer of object-oriented languages and, as a technical and entrepreneurial leader, helped drive the emergence of object-oriented programming as a mainstream technology.