The Impact Project:
Tracing the Source of Technology
Back to its Origins

Panelists:
Lee Osterweil, Chair
Alex Wolf
Barbara Ryder
Dave Thomas
Dick Gabriel

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Where Does Our Technology Come From?

- Hard question to answer
- Facile answers can be misleading
- Important to be careful about this
  - “Those who refuse to study history are condemned to relive it”
Facile answers can be misleading

• It comes from:
  – Sun, Microsoft, IBM, Rational, the web, ……

• Yes, but!
  – Where did they get it from?
  – This is more complicated, more interesting, (maybe) more important
Technology Food Chain Links

- Commercializers
- Researchers
- Tech Transfer agents
- Early adopters
- Students with new degrees
- New Hires
- ETC.

What are the natures of their contributions?
Why should we care?

• Some technology isn’t great
  – Why are we stuck with it?
  – Why isn’t it better?

• Some technology seems useful
  – How can we get more of same?
  – How can we speed its appearance?
  – Are there institutions that need to be
    • Strengthened
    • Demolished
The Impact Project: Tracing the Source(s) of Technology to its Origins

• Focus is on Software Technology
• Start with technologies in widespread use
• Trace back to how they came into widespread use
• Document and analyze
  – What facilitates/inhibits technology flow?
  – How to make more good things happen more easily and more often
Impact Project Structure

• Software community volunteer effort
• Modest sponsorship by:
  – ACM Sigsoft, NSF, IEE
• Collection of reports on key areas
• Appearing 2002 onwards
Report Topics

- Configuration Management
- Reviews and Walkthroughs
- Design Methods and Tools
- Programming Environments
- Modern Programming Languages
- Cost and Economic Modeling
- Testing and Evaluation
- ….. And more…..
Structure of This Panel

- Example Impact report summaries
  - CM (Alex Wolf)
  - Modern PLs (Barbara Ryder)

- Additional Perspectives on all this
  - Dave Thomas and Dick Gabriel
    - “…share a concern about a creeping software amnesia or Alzheimer’s…[in]… young computer professionals causing them to miss/ignore some great ideas which [preceded] them.”
    - Different experiences and views on tech transfer

- Audience Discussion