The IMPACT Project

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Some Myths

- Software engineering research has had minimal impact on practice
- Software engineering research results have effected minimal increases in productivity
- Software engineering research has been a poor investment, giving little return
- Industry leads, research follows
  - (Industry cleans up; research sweeps up)

(Some myths are false, some are not)
Some Consequences for Software Engineering Research

- Negative self-image
- Low academic status
- Apologetic Attitude
- Funding difficulties

Are these fair and warranted?
Some Facts
(Some “facts” are false, some are not)

• Theory:
  – Software engineering research problems are hard, fundamental, and enduring
  – The research community has an increasingly strong grip on these problems

• Practice:
  – The software practice community has achieved orders of magnitude productivity increases
  – Research results have driven much of this

The basis for a sound and thriving discipline
More “Facts”

- Negativity persists
- Negativity hurts
- We can be our own worst enemies
- We don’t know what the truth really is
- We really need to find out…….
The Impact Project

• Provide scientific scholarly answers to:
  – What are the hard and fundamental problems?
  – What impact has research really had?
  – What future impacts should be expected?
  – What future directions will software research take?

• How?
  – Sigsoft project (international)
  – NSF/EU funding

• When?
  – Over the next 18-24 months
Project Products

• Set of reports
  – Organized around subject areas
  – Range of sizes
    • Full (25-30 pages?): journal quality
    • Condensed (3-5 pages?): magazine style
    • Popular press (?): Scientific American?
    • Abstracts (one pager, one paragraph)

• Briefing materials
  – For all occasions
Project Organization

• Steering Group:
  – L. Osterweil, J. Kramer, C. Ghezzi, A. Wolf

• Subject Area-Based Author Groups
  – 12-20 Subject areas
  – 8-10 Authors per subject area
  – 2 CoLead Authors per subject area
  – Inclusive, open to broad community participation

• Panel of Distinguished Reviewers
Initial Subject Areas

- Reviews/Walkthroughs
- Design Methodologies and Tools
- Middleware
- TESTING AND ANALYSIS
Testing and Analysis Report

- **Lead CoAuthors**
  - Lori A. Clarke
  - David Rosenblum

- Looking for broad community participation
- Preliminary report to be presented at ICSE 2001
We’re not gonna take it anymore