Introduction to the
Minitrack on Risks in Information Systems

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Risks in Information Systems

Research and sad experience have shown that reliability is very difficult to achieve in information systems. In some cases, failures are merely embarrassing. In other cases, the can literally be fatal.

Research has even quantified error. When programmers write programs, they make undetected errors in 3% to 7% of all lines of code. Spreadsheet error rates appear to be fairly similar.

To reduce this error rate to a more acceptable level, programmers engage in systematic error reduction in designs, during programming, and during an aggressive period of testing and code inspection.

None of these approaches, however, removes all errors. Testing and code inspection, for instance, only catch about 80% of all errors.

In the future, reliability should become even more of a concern as our information systems continue to grow more complex and as we continue to rely on them in the conduct of business and other critical activities.

Reliability concerns should also grow because so many applications are now developed by end users, rather than by professional programmers. Research presented at last year’s minitrack demonstrates that not only do end users make many errors. They also fail to take the actions needed to reduce errors.

In addition, the Internet should continue to create a host of risk concerns. Some people have likened the Internet to the old Wild West. Others feel that the Internet is far more dangerous. Yet in a real sense, the risks of the Internet Era have barely begun.

The Minitrack

At last year’s HICSS, there was a minitrack on risks in end user computing. That focus proved to be too narrow, so this year the minitrack focuses on all aspects of information systems.

Understanding the Nature and Extent of IS Project Escalation: Results from a Survey of IS Audit and Control Professionals.

Mark Keil and Joan Mann

Out-of-control projects are the nightmares of every information systems manager.

While a great deal has been written about how to prevent wild project escalation, there has been remarkably little written on how widespread such projects are or on their characteristics. Is the problem really as bad as some people have written?

This paper answers with a resounding “Yes.” The authors surveyed professional auditors. The results show that escalation is indeed a very serious problem in the “real world.”

Quantitative and Qualitative Errors in Spreadsheet Development

Thompson S.H. Teo and Margaret Tan

Last year’s minitrack focused on spreadsheet errors. This paper continues that tradition.

The paper probes an area that people have always suspected is critical, namely “what if” analysis. Past studies have looked at errors during development and code inspection. But even if a spreadsheet is clean when it is released, errors may creep in during what if analysis afterward.

The paper shows that what if analysis does indeed introduce new errors. Even more importantly, the paper shows that the way spreadsheets are designed influences how many errors are made during what if analysis and also the types of errors that are made.

By using a task used in previous research, this study also provides needed replication.