Session 4:
User and System Contribution to Failures

T. Basil Smith

Session 4 – User and System Contributions to Failures

- The today is problem is computer technology and inadequacy of HCI (vs older problems)

- Are there parallels from introduction of older technologies? Are old "lessons learned" applicable?

  - Solutions to HI problems with old technologies have strong iterative nature (is this a surprise to anyone who has seen learning curves?)

  - Solutions are brittle, technology change causes problems – this should lead to conservative bias

    - Every major bridge advance was marked by a bridge collapse
    - Shift to fly-by-wire (and turbojet) led to loss of aircraft due to HI differences

    Need to balance gain against learning curve setbacks – sounds like need for some discipline to me!

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HCI differences (i.e., why we are not just fretting over another bridge problem)
HCI sameness (i.e., why this is really just another bridge problem)

- Things seem to look not all that different over time
  (at least some statistics don't look like much is changing from a learning curve fundamentals point of view)

- Can't help but feel that conservative bias is missing in today's world
  - e.g., zSeries major application MTBF is order 30 years
    (the positive payback from conservative approach)
  - e.g., mainframe revenue is <$5B? (from about $50B? server revenue)
    (the negative payback from conservative approach)

- Roy provides superb example of complex problem
  - Some problems are really conceptually complex, even with the best HCI

- Can't help but feel that mastering Roy's "declarative" context represents a real problem.
  - Need to recognize complexity that needs to be understood and complexity that needs to be hidden
  - Solution to IRQ conflicts was not a better visualization tools to see IRQ conflicts
  - Yet no doubt that understanding sophisticated context is going to be necessary in many cases