Agile development best dealt with in small groups
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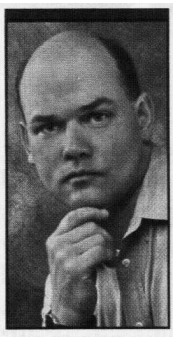

Development techniques work best in environments that undergo continual change

By Scott Ambler

Many organizations are adopting agile software development methodologies such as Dynamic System Development Methodology (DSDM), Scrum, eXtreme Programming (XP), Feature Driven Development (FDD) and Agile Modeling (AM).

Several methodologies have been around for a long time. DSDM surfaced in the early '90s and Scrum emerged in the mid-'90s, and others such as XP and AM are relatively new, however, many misconceptions still persist, even though a wealth of material exists, which is problematic if you are trying to identify ways to succeed at software development.

Dr. Barry Boehm's is a well-respected member of the IT community and well known for his spiral software development lifecycle and COCOMO II estimating technique. Although Boehm is a bright guy, he got several fundamental concepts wrong in a recently published paper he wrote.

For example, he mistakenly implied that XP included little more planning than hacking efforts, whereas the reality is that upwards of 20 per cent of time spent by XP teams are planning oriented (you just don't see XPers wasting their time updating a Microsoft Project Gantt Chart).

Needless to say, the agile community wasn't very impressed with Dr. Boehm's paper, so to explore and address this situation an electronic workshop was subsequentally held. Dr. Boehm was involved, as were members of the agile community that included Kent Beck, originator of XP; Alistair Cockburn, author of *Agile Software Development*; Randy Miller co-author of *Advanced Use Case Modeling* and myself.

The workshop focused on three points with the first being that agile development works better for smaller teams. For example, refactoring can be done only for small systems and great developers.

Group consensus was that agile development can and does work well for teams of 20 to 30 people, but in larger groups, inherent communication problems are a stumbling block.

Suggestions included on organizing the larger team into sub-teams with a core team focused on developing and evolving a common architecture.

Agile processes are real; they're here to stay and every IT professional needs to take them seriously.

The idea that only great developers could succeed at agile development wasn't well received. General consensus was that you did need a few skilled developers with mentoring skills, although the rest could be "normal" developers.

However, this is true of any development effort — at least a few people need to know what they're doing.

Also discussed was agile's emphasis on designing for current needs, not for future ones, that agile methods work best when the future is unknown, and are less than optimal for projects in which future requirements are known.

Yes, it's true that agile software development techniques work well in environments where the requirements evolve to reflect changes in your environment and your changing understanding of the system.

There was an implied assumption that agile developers don't consider future issues, which is not the case.

Yes, agile developers generally don't overbuild their software because that takes resources away from fulfilling actual current requirements, but they don't shoot themselves in the foot either.

If future requirements are an important consideration, choose something like DSDM or FDD over XP — the right process for the job.

The third point discussed was that agile methods fit applications that can be built quickly and don't require extensive quality assurance and that agile methods work less well for critical, reliable, and safe systems.

This misperception was due in part to most agile techniques eschewing traditional walkthroughs and inspections, preferring more effective techniques instead.

An agile process such as XP doesn't require code inspections because of its strict adherence to coding standards.

On the surface it looks as if there is no quality assurance in XP, yet the reality is that XP has a stronger quality assurance focus than the vast majority of prescriptive processes.

Agile processes are real; they're here to stay and every IT professional needs to take them seriously.

Approach agile techniques with an open mind, think for yourself instead of listening to the rhetoric of naysayers. When you do you'll quickly discover that they're agile, not fragile.

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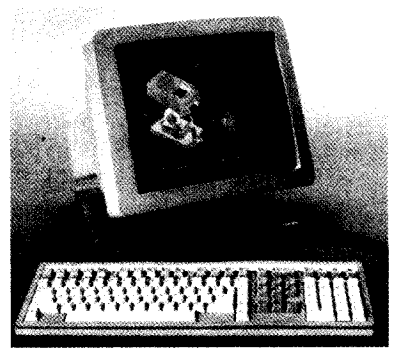
LOOKING BACK

20 years ago

• Faced with the problems of paying for a direct sales force in a touch economy, Xerox Canada joined the retail rush — it opened two stores and planned to open others in almost every major Canadian market. Store stock included Sharp calculators, Dictaphone equipment, Phone-Mate answering devices, Diablo and Epson printers as well as other peripherals and software.



• Development of a social conscience to help those whose jobs were affected by high-tech had to happen quickly, before laid-off workers were lost in the shuffle, said the Ontario Federation of Labour. The OFL said people needed to feel obliged to initiate re-training programs similar to the ones in Japan.

• Xerox's Smalltalk OS was expected to shut down the Unix window of opportunity before it fully opened, according to market research firm Strategy Inc. The report revealed that before the supply of Unix-based applications could attract sufficient users to 16-bit computers, many PC and office automation manufacturers would flood the market with Smalltalk system, which, according to Strategic, were more powerful and easier to use than Unix systems.

15 years ago

• The news that the Treasury Board had a new policy for federal IT management, and that it endorsed Open Systems Interconnection (OSI) received cautious approval from some industry observers. On the bright side — it could mean better service to taxpayers; on the negative side — electronic interdepartmental exchanges of information could lead to a "stream of protect about the potential misuse."

• DEC announced it would increase its workforce by 100 skilled engineers and technicians after it earned "a specialized manufacturing mission" to supply DEC affiliates with VAX 8250 and VAX 8350 minicomputers.

• According to T.S. (Dudley) Allen, president of Control Data Canada, Canada suffered from a lack of strategic direction with regards to technology. "We have a haphazard approach that supports various aspects of technology. But there is no unity," he said.

10 years ago

• IBM's attempt to derail the momentum of Windows 3.1 with OS/2 2.0 took a twist – there was a worldwide shortage of 3.5-inch diskettes. "OS/2 can't launch because Microsoft sucked up all the diskettes," said one consultant. "It's a gorgeous play." He also noted the situation was "hilarious" but not a "big deal."

• Halifax's Central Guaranty Trust's data centre was slated for closure at the end of the year, when meant tossing most of the facility's 135 employees out of work. The closure was the result of the pending sale of 97 Central Guaranty branches to Toronto's Canada Trust and Montreal's National Bank.

• Michael Dell blasted the industry for not meeting users' needs. He blamed the industry of living off of product hype rather than listening to its customers and stated end-users have become 'end-losers' because many companies were too self absorbed and technology driven.