

Brooks, Frederick. (1987) "No silver bullet: essence and accidents of software engineering," *Computer*, Vol. 20, No. 4 pp. 10-19

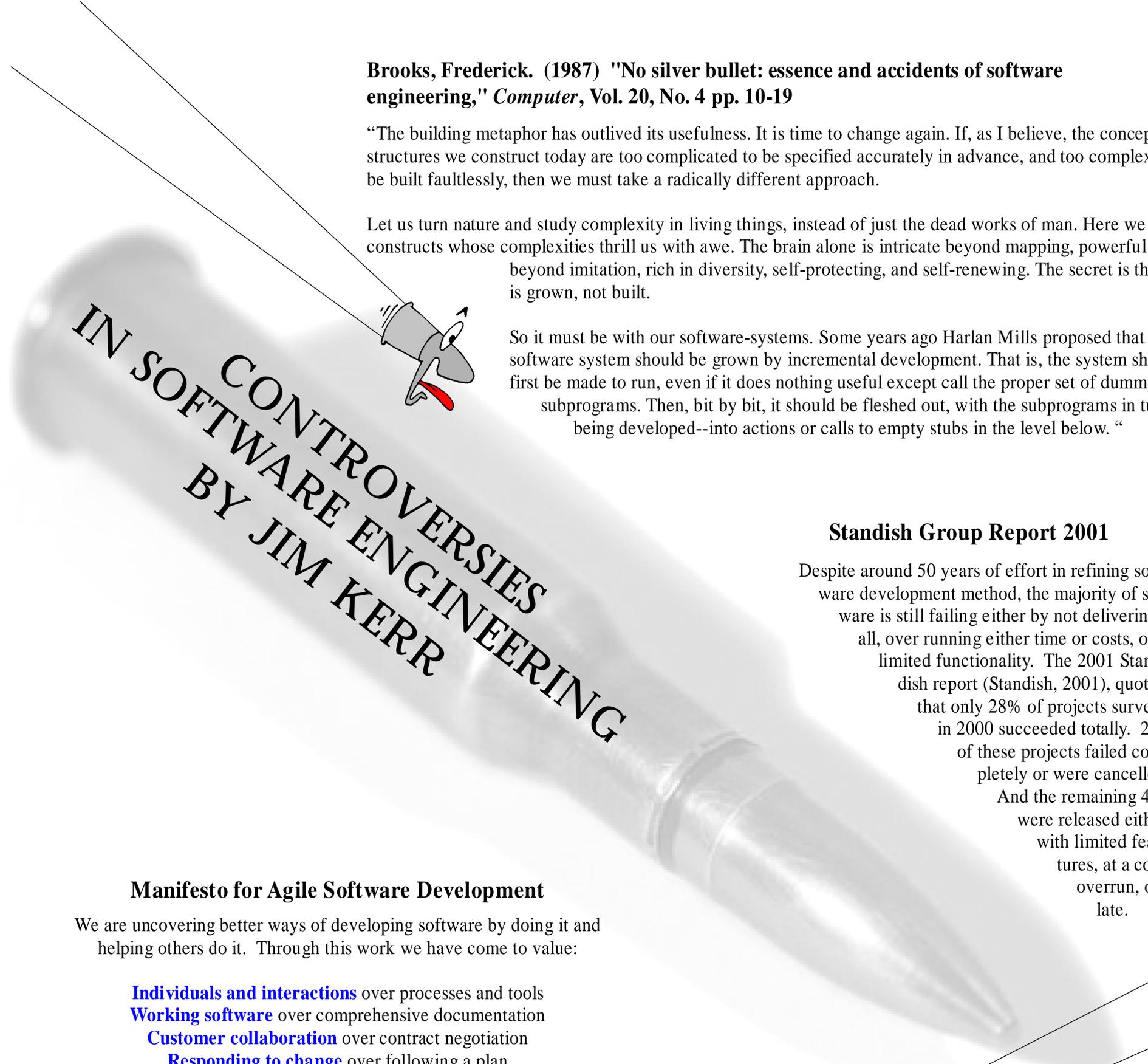
“The building metaphor has outlived its usefulness. It is time to change again. If, as I believe, the conceptual structures we construct today are too complicated to be specified accurately in advance, and too complex to be built faultlessly, then we must take a radically different approach.

Let us turn nature and study complexity in living things, instead of just the dead works of man. Here we find constructs whose complexities thrill us with awe. The brain alone is intricate beyond mapping, powerful beyond imitation, rich in diversity, self-protecting, and self-renewing. The secret is that it is grown, not built.

So it must be with our software-systems. Some years ago Harlan Mills proposed that any software system should be grown by incremental development. That is, the system should first be made to run, even if it does nothing useful except call the proper set of dummy subprograms. Then, bit by bit, it should be fleshed out, with the subprograms in turn being developed--into actions or calls to empty stubs in the level below. “

Standish Group Report 2001

Despite around 50 years of effort in refining software development method, the majority of software is still failing either by not delivering at all, over running either time or costs, or limited functionality. The 2001 Standish report (Standish, 2001), quotes that only 28% of projects surveyed in 2000 succeeded totally. 23% of these projects failed completely or were cancelled. And the remaining 49% were released either with limited features, at a cost overrun, or late.



CONTROVERSIES IN SOFTWARE ENGINEERING BY JIM KERR

Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- Individuals and interactions** over processes and tools
- Working software** over comprehensive documentation
- Customer collaboration** over contract negotiation
- Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck, Mike Beedle, Arie van Bennekum, Alistair Cockburn,
Ward Cunningham, Martin Fowler, James Grenning, Jim Highsmith,
Andrew Hunt, Ron Jeffries, Jon Kern, Brian Marick, Robert C. Martin,
Steve Mellor, Ken Schwaber, Jeff Sutherland, Dave Thomas

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An example of the power of ethnographic study – Egg’s Whiteboard

Ethnographic studies are able to surface social relationships of practice that have material form and how when the material changes you change the social relations of practice and change practice itself. During a visit to egg, there use of whiteboards highlighted an example of this controversy.

Within XP there is a overall plan to do as little as necessary to achieve the objective. At egg environment has forced a departure from traditional practice within XP of using whiteboard as a planning and design tool. At egg the whiteboard is situated off to one side away from the software development groups, breaking practice.

In answer to this Egg have, controversially, developed a virtual whiteboard that they intend to circulate within the agile community via an open source licence. This is controversial firstly in terms of licence and legal implication. Secondly because of the domination of the egg brand identity. Thirdly this shift from physical to virtual changes the social relations around the use of whiteboard and will affect the whole process.

The implementation of a virtual whiteboard highlights a tension in practice. This tension exists because of a pull for teams to access and share the whiteboard design remotely and even internationally. However, this causes tension with the XP practice and will influence the social relations. It is the ethnographers ability to identify these issues and then observe effects, that then feed back to practice.

