

## Business at the speed of evolution

If internal auditors and chief executives only assess IT projects by their impact on the bottom line, they are missing the point. Andy Ross explains how a new world view is needed to see the full picture



**B**USINESS SOFTWARE is changing the world, but no-one quite knows how. Disconcertingly, some early studies suggested that our multibillion investments in IT solutions for business may not have increased most workers' productivity. Since then, return on investment and total cost of ownership have prevailed in IT investment decisions. But is this the right response?

Surely not, and the big picture shows why. When business processes are analysed and codified into

software, the people who perform those processes come to see them in a new way. Learning how to improve their old ways takes trial and error. And learning how to use all that new kit effectively takes time, too, so it's no surprise that productivity doesn't make the great leap forward in one or two quarters. As they learn, people glimpse new horizons and reach out for them. So instead of just making the same widgets faster or cheaper, they learn to make them with new levels of quality, new features, new kinds of customer appeal, backed up by new levels of customer service. These creative responses, not costs and returns, drive progress. Productivity studies ignore innovation.

To see the real payoff, we need a new view of the world. We're not just making profits in a world of buyers and sellers. Of course we're doing that too, but chief executive officers (CEOs) should see more. I work for SAP, where CEO Henning Kagermann says SAP is making nervous systems for businesses. IT-savvy companies are turning themselves into living organisms, and the supplier and customer landscapes they operate in are their ecosystems. What we're seeing in the business world is biological evolution, evolution of new forms of life, based on the organized productivity of people with shared goals.

Evolution in the natural world has followed an exponential curve. It took two or three billion years for the first cells to evolve, half a billion for dinosaurs, a hundred million for mammals, and a few million for people. Then civilization kicked in, with a hundred thousand years for language, ten thousand for cities, a thousand for machines, a century for electrical machines, and a decade for smart machines.

According to geek guru Ray Kurzweil, we can expect robots with human intelligence within two or three decades.

The exponential growth of organized complexity in our natural and business ecosystems is continuing. People, individual people, are being empowered as never before with products from Microsoft, Sony and so on, but people together, in groups based on shared activities and values, are where the future lies. This is the truth in the old utopian visions of socialism and communism. Only in organized societies can human beings achieve their greatest fulfilment. East Asians, with their long history of civilization, build on this to achieve rates of business growth that leave Europe in the dust.

All well and good, perhaps, but relying on others is risky. As in the classic prisoner's dilemma, cooperation can either pay off quite well or lose big time to a defector. Why play patsy when others are playing hardball? Well, consider Windows versus Linux, Microsoft hardball versus the open-source dreamers. Where do you put your money after hackers have trashed your monoculture servers? Sometimes the dreamers can get it right – like Bill Gates did, long ago.

Evolution is not just the Darwinian fight of each against all. It is certainly not the Dawkinsian combat of DNA robots projecting their selfish genes into the next generation. It's a landscape where increasingly complex systems find environmental niches and learn to occupy them beneficially, both for themselves and for their surrounding ecosystems. Systems that fight against the rest prompt an immune

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response. The international legal system, antitrust and consumer protection legislation, whistle-blowers and Sarbanes-Oxley regulations all act in effect as a global immune system, ensuring that the evolution of complexity does not degenerate into Darwinian mud-wrestling or robber-baron capitalism.

So corporate bosses who ignore their social role and focus only on profit are like suitors who neglect their personal charms and focus only on income, as if cold cash could buy a fair lady's heart. If that were a winning strategy, we'd be a species of gangsters by now. No, humans are natural business agents in a global ecosystem of competing commercial organisms. Get with IT or go broke. That's evolution, business-style.

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