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Future Trends Series - GR:REEN Project

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Fast Track to the Future – The 2012 IBM Tech Trends Report

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Science and technology

Reporter

IBM Center for Applied Insights

Type of the Reporter

Private Organisation

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Official website

<http://www.ibm.com/smarterplanet/us/en/centerforappliedinsights/overview>

Language available

English

Short summary

Adopting new technologies involves more than just understanding them: companies need to be ready to apply them. And that is a big problem for many organisations, according to the IBM Tech Trends study involving more than 1,200 technology decision makers, 250 academics and 450 students coming from 16 different industries and 13 countries, spanning both mature and growth markets.

Mobile technology, business analytics, cloud computing and social businesses are rewriting strategic playbooks across industries. In these spaces, new business possibilities are emerging faster than many organisations can act on them; yet, some companies – an elite set of pacesetter organisations – are equipped to innovate at the front edges of these fast-moving technology trends and drive strategic advantages for their organisations. This report also explores what business and IT decision makers can learn from this elite group of pacesetters.

Key trends

- **Four pivotal information technologies are rapidly reshaping how enterprises operate:**

1) Mobile technology: mobile devices have outnumbered people and are going to increase even more. 2) Business analytics: sources of analytical insight continue to multiply, with the world generating 15 petabytes (15.000 terabytes) of new data every day – roughly eight times the information housed in all the academic libraries in the United States. 3) Cloud computing: the use of cloud computing is likely to surpass traditional on-premise IT infrastructure. 4) Social business: nearly 1.5 billion people use social networks on a regular basis, with the most recent billion joining in since 2009.

- **Threats to innovation.** Enterprises are facing two substantial obstacles: 1) IT skills shortages: only one in ten organisations has all the IT skills it needs to deploy mobile, analytics, cloud and social business initiatives. 2) Security concerns: they consistently rank as the most significant barrier to adoption across mobile, cloud computing and social business and as the number-two barrier to adoption of business analytics.

Suggestions

- **Pacesetters' formula for success.** 1) Be more market-driven: pacesetters are intent on identifying new markets via analytics, differentiating their products and services through mobile technology and bringing innovation to market faster using analytical insights, social collaboration and cloud computing. 2) Be more analytical: pacesetters understand the need for expertise in maths and statistics, but they also recognize the need to blend these skills with business knowledge. 3) Be more experimental: pacesetters are nine times more likely to experiment with technologies that don't yet have a clear business application, and twice as likely to proactively develop skills to meet anticipated needs.

- **Actions for IT practitioners.**

- Concentrate on integrating expertise: deepen specialized skills while broadening knowledge across new areas, combine areas of expertise to deliver more value, strengthen business acumen, use social tools to solicit and supply needed expertise.

- Seek out experiential learning: take advantage of opportunities to try new technologies, experiment "in the open".

- Make security a personal priority: become an expert on security and privacy within your area of expertise, better understand the global business context because privacy laws and cultural expectations vary by country, lead the charge to design security in from the start and not as an afterthought.

- **Actions for business and IT leaders.**

- Think deep and wide when building skills: encourage skill development across a range of disciplines, design diverse teams and use social tools to assemble the right expertise at the right time, extend skills mission beyond IT.

- Sponsor sandboxes: give IT staff the leeway to "play" with new technologies, provide infrastructure to host experimental systems, fuel innovation by crowd-sourcing ideas from your own staff.

- Treat security as a business imperative: prioritise investments in security technology and skills development, develop strong security and privacy policies, collaborate with other organisations and academia on solutions.

Methodology

Survey

Reference to other trends reports? If yes, which reports?

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