
Top Technology Trends for 2007



An opinion paper by Technology Futures, Inc.

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Top Technology Trends for 2007

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For the third year running, Technology Futures, Inc. (TFI) provides a list of forward-looking trends for the coming year that will have significant impact on companies that use technology for competitive advantage. Commenting on the list, author David Smith (Vice President, TFI) states, “2005 and 2006 were periods spent building capacity and capabilities. We characterize 2007 as one of transition. We see tipping points in several technology areas, consequently positioning many companies in a multitude of markets. Two examples of these tipping points are broadband penetration and the death of single core processing chips.”

The list below provides more information on these trends and others that will be of great consequence to those involved with global business, technology business process, science and universities, government agencies, federal labs, corporate labs, and technology savvy consumers.

Top Technology Trends for 2007:

Broadband and high-speed wireless penetration rapidly increases, as does the growth of new applications that can exploit these higher speeds.

In 2007, we begin to see broadband (wireless and terrestrial) exploited for new markets, as well as dramatic changes in old markets. A good example: in 2007, more money will be spent for online advertising than for print advertising. The digital home will reach a tipping point with the integration of electronic gaming, MP3/high-def audio, do it yourself (DIY) content production (such as Google YouTube and the media content of MySpace), high-definition television, and increasing demand for IPTV using new generation game consoles and set-top boxes. This do-it-yourself content creation will vastly expand on P2P networks,

and will ride on the back of expanding computing power, storage expansion, broadband penetration, and Reed's law of community building. Social networking, which took off during 2006, will expand during 2007 to further personalize life on-line. This personalization will be both media intensive, such as on MySpace, and content intensive, such as the Google personal homepage, which is the fastest-growing of all Google products.

The IT world sees several tipping points with the death of single core processors and the emergence of multicore as the standard. This change will have rippling effects throughout the industry.

Programming will have to adapt from the old linear approach to a new image-based model, which takes into account more fully the potential of synchronized parallel processing and new storage capabilities. Part of this new storage capability is that 2007 will be the year that flash memory hits the mainstream. During 2007, approximately 17 different fabs will be put into production, and the vast majority of these fabs will produce flash chips. We will see major technology companies introducing computers without disk drives, with flash being considerably faster and more durable than the current disk drives. The new OSs from Microsoft and Apple will take advantage of this, and the increased capacity will usher in new applications in the mobile domain. Flash memory can be multiported, adding to the potential of synchronized parallel processing.

Digital Convergence enters a new stage of growth and finally begins to exploit the benefits of horizontal digital convergence.

The need for higher profits, value partnering, and time compression forces traditional companies to look for solutions and capabilities outside of their traditional vertical industries. An example is the health industry looking at the new Nintendo Wii game console, with its motion sensitive controllers, as a way to motivate exercise and physical therapy. This horizontal convergence will further build upon the transitioning of outsourcing to smart sourcing. Smart sourcing is when organizations utilize the Reed's law approach of self forming groups to help identify, jointly design, and jointly produce products that are not in the organization's core competencies. This is particularly important as the design and product life-cycles continue to compress, and new convergence products reach beyond traditional product lines. With the growth of broadband Internet, smart phones and devices, and various always-on products and tools, the timing is right to exploit these new capabilities.

The corporate scorecard is in transition. Global mergers and acquisitions continue to grow—the consolidation fueled by Sarbanes-Oxley Act compliance.

These mergers and acquisitions will enable cross enterprise processes, and will position companies to take better advantage of the first three trends. This trend will also help change the definition of the corporate home office. Most senior executives will increasingly work in locations other than their traditional corporate suites. This will accelerate the growth of software mini-applications that

will bring business intelligence and information from the Web to you on whatever device you're using, and whatever location you happen to be in. A particular winner will be the Pacific Rim with ChinaPan (China and Japan) exploiting self forming groups, ubiquitous processing, communications, and digital convergence to usher in a new integrated, non-vertical industry centric science/design/manufacturing center to support globally developed IP.

The first market acceptance of smart phones for mobile commerce and epayments in North America is seen. This furthers the importance of smart phones and smart devices to the expanding impact of the Internet.

At the end of 2006, Internet penetration was only about 20% worldwide. Most of the new users' first experience on the Internet will be with handheld devices, and not desktop or notebook computing devices. This growth of new users will see new applications being developed to support mobile commerce and epayments. Full acceptance of epayments in North America is still three to five years away, but the positioning and acceptance will reach market acceleration by the end of 2007.

The threat to security and privacy continues to be real, with a focus on authentication issues and shifting digital rights management for devices outside traditional computing tools.

New classes of applications that focus on Internet protocol being used more widely across devices outside traditional computing tools create continuing challenges.

The age of Bio continues to grow in importance as new products from the industry consolidations of 2006 begin coming to market in 2007/2008.

Digital convergence also impacts the age of Bio with evidence-based medicine being enabled by the horizontal convergence of multiple industries.

TFI excels at relating emerging trends to the specific interests of clients and providing a future-focused analysis of what developments and opportunities can be expected in the near and more distant future in a particular industry or organization. If you believe TFI can be of assistance to you in this area, please contact us. We welcome your inquiries.