





April - June 2013 / Future Technology



FOREWORD

Future Technology

Even as global businesses step up the search for new and innovative ways to enhance their competitiveness and get ahead of the growth curve, a new generation of advanced technologies – social, mobility, analytics and cloud – has taken the centre-stage, promising to transform enterprises and help them do business better.

Enterprises that embrace these technologies would be able to seamlessly redesign their business models, strategy, operations and processes to meet the new customer demands. Enterprises are looking to get insights into customer preferences and behavior, which are vital for building effective go-to-market strategies. They want to engage with the key stakeholders – customers, suppliers, and employees – in a much more collaborative real time manner, leading to significantly higher growth and productivity levels. And they want to variabilize costs to enhance global competitiveness. Technology adoption, within enterprises has moved beyond the IT function within enterprises and business divisions are adopting the technology wave to best suit their requirements. This fragmented adoption has thrown up new challenges on security, privacy, access and cost controls.

In keeping with these developments, this edition of WInsights directs attention on advanced technology led business disruption. The edition features articles by subject experts, key findings from reports on analytics and consumerization by The Economist Intelligence Unit, TLG and a poll of delegates at Davos, key takeaways from the FT-Wipro Dinner Forum held at Davos, and an insight in to social strategies from HBR.

I hope that you will derive great value from the articles presented in this edition, and I look forward to your feedback and suggestions.

Happy reading!

Puneet Chandra

P. Chamb

Chief Marketing Officer - Wipro Global IT Business





Cloud Potential: An Opportunity to Invent and Reinvent business

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FT-Wipro Davos Dinner report





Unleashing the Power of Advanced Technologies

Cloud computing, mobility, data analytics, social and sensors are disrupting established business models and reshaping customer experience across industries. Working in concert, these advanced technologies are eroding barriers to entry, lowering costs of transactions, and increasing speed-to-market. Fragmented user experiences are becoming more intuitive and seamless, with fewer hand-offs and greater continuity across customer touch-points and channels. Shawndra Hill, Wharton Professor of Operations and Information Management, and Shaji Farooq, Senior Vice-President for Advanced Technologies at Wipro, weigh the opportunities and challenges that advanced technologies bring in this white paper produced by Knowledge@Wharton and sponsored by Wipro Technologies.

Cloud computing, mobility, data analytics, social and sensors (referred to as Advanced Technologies) are disrupting existing business models, forcing organizations to reinvent them and transform the way they serve their customers. Together, these technologies have the power to erode entry barriers across industries and shift competitive advantage as they do so. The pace of innovation that these technologies drive is often frenetic, driven by the adoption of open source technologies that harness the collective brain power of development communities and through crowdsourcing.

"Almost anything is possible with these newer technologies working in concert, and often the biggest constraint is the inability to think beyond the tried and tested; one has to be willing to suspend one's sense of disbelief to truly harness what these technologies can offer – it is like making a sci-fi movie, only, this time around it is for real," says Shaji Farooq, Senior Vice President for Advanced Technologies at Wipro. Farooq heads the company's global business in Advanced Technologies, Strategic Alliances, and also oversees "Go-to-Market" enablement, which defines his company's sales and marketing strategies. In addition, Farooq manages an advanced technology consulting group that advises clients on how to harness the power of these advanced technologies.

"The real power of these advanced technologies can be experienced when you bring them together," says Farooq. "They have the power to disrupt almost any process. And the impact is exponential; think of this as (Impact) " – the more of these technologies you leverage, the greater the overall impact to your business. Together, these technologies allow you to share everything (information, intelligence, insights and opinions), everywhere, all the time."

Shawndra Hill, a professor of operations and information management at Wharton, and Farooq explain how these technologies are transforming businesses:

"The real power of these advanced technologies can be experienced when you bring them together"

Seamless, intuitive experiences: Customer experience today is mostly disjointed and fragmented, and these newer technologies present a tremendous opportunity to change that to a more seamless and intuitive experience. Over the last decade, advances in communication technologies have enabled a unified customer experience across all channels; information from one channel, like a physical store or customer service desk can seamlessly flow to an online or any other channel.

But the newer technologies that enable collaboration and multi-way flow of information can help businesses discover unmet customer needs by understanding the context (where your customers are, what their historical behaviors have been, what their recent activities imply) through real-time analysis of information, and provide customers targeted services they desire (rather than inundating them with unnecessary promotions and offers). Furthermore, the intuitive interfaces for customer interaction enabled by these technologies make formal learning or training irrelevant, notes Faroog.

The following example illustrates how user experience will evolve as these newer technologies take hold:

Sensors in cars today flash alerts about problems that need attention, such as a need for an oil change, or low fluid levels. These alerts usually flash when a driver is at the wheel, a time when it is least convenient to act on such alerts. Consequently, the driver must later remember to call a mechanic, explain the problem, arrange an appointment, and drop off his vehicle for service. When the mechanic hooks up his computer to probe the vari-

ous sensors in a car to diagnose potential problems, he may discover other things that need to be repaired. And often, the parts required for these repairs are not readily available, requiring a second visit to the mechanic. "This is what I mean when I refer to a disjointed/fragmented customer experience," says Farooq.

Cars in the very near future will have a multitude of sensors embedded to detect problems, flash alerts directly to a mechanic of choice, automatically schedule or suggest an appointment with a preferred repair shop, and update your calendar. This will allow the mechanic to pre-order required parts based on the comprehensive diagnostic information that the sensors relay to him, says Farooq. Technologies such as cloud, mobility, sensors, and analytics enable such timely communication and sharing of data across multiple parties involved in the process. It is important to recognize that by working in the background, these technologies have eliminated handoffs, creating a seamless experience for the customer.

Similarly, sensors in aircraft will not only warn pilots about imminent problems, but will also make it possible to optimize scheduled maintenance (location and time of repair) with minimal service disruption and reduced spare part inventories. Sensors built into windmills on windmill farms can be managed with minimal human intervention because of these technologies working together in the background - these self-modulated sensor controlled windmills can cope with high winds by adjusting their blade angles, or shake off ice buildup by accelerating and decelerating, he adds. Packages with intelligent sensors capable of two-way communication will allow re-routing of packages during transit by reprogramming destination information stored on the sensor. Sensors will become pervasive, and embedding them almost anywhere will become cost effective. The primary drivers for this "sensor revolution" will be the dramatic reduction in the cost of manufacturing them, and the increasingly sophisticated sensor functionality that can significantly alter the cost of processes and operations in almost any industry.

Sensor data can be used to predict business outcomes for marketing, manufacturing, supply chains and fraud detection, says Hill. She points to the example of sensors being used to monitor health information in real-time to offer personalized care. Sensors in smart phones can "provide a huge opportunity to learn about human behavior in various ways". However, challenges persist, especially with the sources and the usability of the data gathered. There is a need to find new methods to combine and mine data from different sources and address privacy issues, she adds.

Hill has used sensor data in a variety of ways in her research that can impact a firm's bottom-line and also enhance consumer experience. They range from using satellite data to predict drought in Ethiopia, call behavior to detect telecom fraud, and social media to measure the effectiveness of advertisements. "The uses of these sensor data are many, and we have just scratched the surface," she says.

Redefining business processes: Technology is getting increasingly standardized, compelling businesses to re-examine what their "core processes" are and where they could derive competitive advantage. The process to secure a housing mortgage loan in the U.S. involves more than a dozen different parties including attorneys for the bank, buyer and seller, inspection and credit rating agencies and real estate agents. Each works in a silo, and over some 40 days, they produce a large set of documents.

Cloud, mobility and analytics could allow all those parties in the loan origination process to work on a single platform. That would force each party to redefine its competitive advantage, says Farooq. For example, the competitive advantage for a bank must stem from its underwriting standards, he explains. The Internet, cloud and other technologies lower transaction costs, forcing businesses to rethink what activities they consider core and worthy of retaining in-house, he adds. "Data storage

and processing has become democratized, putting the power to perform large scale data analysis at the finger tips of almost anyone with a great idea, the will to learn how to analyze large data and a small budget," says Hill. In fact, the availability of data mining tools help her and her students wrap up large projects within a semester. For companies, a big challenge in data mining is to find talented people with both the technology and business expertise, she adds

Crowdsourcing: Notions of core or proprietary strengths are also under attack from open source technologies. Google's Android operating system for smartphones and tablets is a classic example. About 700,000 Android applications were available as of October 2012. "Many firms have chosen to marry their future to open source technologies," says Farooq. "By doing so, you automatically become part of the constant innovation that will take place in the future."

Another example of crowdsourcing Farooq points to is oDesk, a Redwood City, California-based online work-place "where you can literally create a project team on the fly without hiring them permanently on your payroll". Ten-year-old oDesk has 2.3 million registered contractors and more than 500,000 customers worldwide. It allows users to assemble people with specific skills for limited periods of time, and get them to work in teams or individually.

"Crowdsourcing helps us to do work cheaper, easier, and faster," says Hill. She points to its many applications, ranging from getting simple tasks done with an army of workers to voting on elections, stock outcomes



Google's Android operating system for smartphones and tablets is a classic example. About **700,000 Android applications** were available as of October 2012. and funding work at the micropayment level in the developing world. However, crowdsourcing has limitations with respect to the quality of work generated and measuring it, and managing a large and diverse set of unskilled workers at scale, she adds.

Hill was involved in launching a large crowdsourcing competition called the MyHeartMap Challenge to get people in Philadelphia to map automatic defibrillators in the city. She also used stock picks from participants on the Motley Fool Financial website to predict stock performance.

Peer advocacy power: Customers want "to hear and be heard," says Farooq. From that emerges the power of "peer advocacy" and crowdsourcing to extract business value. "Customers trust one another more than they trust the businesses they deal with, and also want their opinions to be heard," he adds. He points to Covestor, a five-year-old Boston, MA-based online brokerage firm that builds its business model on those maxims. With the permission of its clients, it validates and exposes the portfolio performance of "model managers" that have produced superior investment returns. Its investor clients could choose to mimic those model managers, who would get a percentage share of the returns for the service that they provide.

Customer opinions on social media help firms learn about their performance, and customers learn about the quality of products and services from one another, says Hill, pointing to one aspect of the power of peer advocacy. "Firms have the opportunity to craft and drive the message that they want consumers to discuss online about their products," she adds. However, firms and consumers must be wary of shills, or fake reviews and comments online. Hill has used social media to track brand advertising during major events to monitor responses to brands over time and by demographic category.

Fresh View from the Top

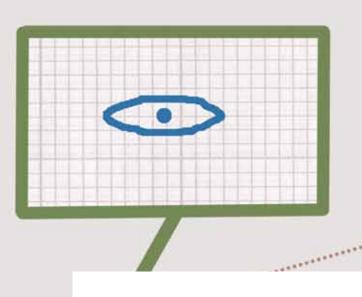
In order to extract the gains of advanced technologies fully, top managements must realign organizational goals and performance metrics to break silos, embrace collaboration and promote technology integration. "When there is collaboration, there is synergy," says Farooq. The job of the CIO has to evolve to adapt to the rapid shift both in how technology is deployed and how it will be used - the focus has to shift from managing information and technology infrastructure to enabling business with greater speed and agility. "The 'I' in CIO will in the future be a lower-case 'i' that emphasizes intelligence, insights and innovation," he adds.

One should also add "imagination" to that list, says Farooq. "Our greatest limitation is our inability to imagine what is possible, because the technology to do it is there," he adds. "If you were to ask a kid on the 40th floor of a building what is the fastest way to get to the ground, he would probably say, 'Jumping out the window.' But if you tell him that you could die if you did that, he might respond, 'Not really, because I have this magic suit that will take me down in a manner that will not kill me.' Today, it is all about daring to dream about that magic suit."

51%

insist that Predictive Analytics will have a **very high impact** on strategic decision making

Source: Dipstick Survey of Delegates at Davos 2013



RESEARCH REPORT

The Consumer IT Revolution

What It Means For Business

What is it? The Consumerisation of IT (C.IT) describes the growing phenomenon of consumers - and consumer technology - driving innovation in the corporate sector. Employees are taking the experience and insight drawn from their consumer use of hardware and mobile applications from their personal lives to their professional lives.

Predicting the Future Today

Twenty years ago technological innovation was generated by business, shared in the work place, and brought home by employees. Today, business is witnessing a 180-degree reversal of the traditional cycle of information technology. In what has become known as 'the Consumerisation of IT' (C.IT), employees – as consumers

 are bringing insights and experiences into the work place, sharing pioneering technology, and driving business innovation.

This report examines this paradigm shift, looking at the impact of C.IT on economic productivity, and, in particular, exploring the future benefits and challenges based

on original polling with C-Suite representatives from the UK, USA, France and India the data highlights the economic power of mobile and social technology – confirming that C.IT will continue to rapidly alter business models and sectors – and assuring us of a very simple conclusion: The Future is Mobile.

As recently as two decades ago, employees' exposure, and opportunity, to test ideas and innovate was limited. Technology was largely introduced and used in the workplace. As a consequence, 'work life [drove] the adoption of technology into our personal lives'.

Today, employees are using technology in their personal lives that is increasingly more advanced than the technology they experience in the workplace. With the ever-increasing accessibility of smart-phones, social computing tools and 'social' technology, employees have become accustomed to 'the power, convenience, flexibility, and connectedness of...consumer technology experiences [and want] those same capabilities to help [them] at work'.²

More specifically, as products and applications become more sophisticated, employees become more instrumental in driving an ever-greater level of innovation at work. Over 42% of senior business leaders polled cited 'better innovation' as the most tangible commer-

cial benefit of C.IT. Gaurav Dhall, Global Head of Mobility Solutions at Wipro, notes that "there will be a lot more innovation... a lot more entrepreneurial drive; both from a technology perspective, creating new technology", and in the creation of new concepts.³

Holistically, this trend represents a phenomenon that some say marks a 'buyer-led revolution' in how information technology is produced, applied and consumed.

Why is it important? The Consumerization of IT is having a positive and profound impact on standard of living, employee work life and collaboration, and corporate behavior. It is changing the way business operates and the role and expectations of stakeholders, both as consumers and employees. Most importantly, it is driving higher levels of productivity, increased business and employee efficiency, and customer engagement and satisfaction.

This paper considers the benefits to business from a technology and operations point of view, as well as a

¹ Gaurav Dhall, 'Interview with TLG'

² Microsoft, definition of Consumer IT http://www.zdnet.com/blog/microsoft/the-consumerization-of-it-and-of-microsoft/5019

³ Gaurav Dhall, 'Interview with TLG'

more strategic perspective. Part One considers the practical benefits and implications for business and consumers. Part Two examines the defining benefit: productivity gains. Finally, Part Three looks at trends and challenges. The conclusion considers the implication of C.IT for Capitalism.

The insights draw on conversations from in-depth surveys of senior executives across five markets, USA, UK, France, India, and Australia. (For more information, see, Methodology)

The Business + Consumer Benefits

Part 1. The Future Is Mobile.

C.IT is fundamentally changing the way we work. With mobile, social and cloud technology at our fingertips – via smart phones and tablet devices – we can work where we want, when we want. So 'mobile' means both a way of working and the Internet platform that makes this work possible – inside and outside the workplace.

46% of C-suite executives polled hailed 'mobile devic-

es' as the greatest driver of C.IT in their company, with 'wireless internet' coming in at a close second. As the two become increasingly integrated, the potential for individuals to be more influential in the economy becomes even greater.

For business this means greater access to stakeholders and employees, stronger consumer relationships, and increased efficiency, productivity and innovation. Concurrently, C.IT empowers consumers and employees, giving them added flexibility, greater control, and a larger presence at the stakeholder table.

1.1 C.IT 'From The Outside In': Business Benefits

Polling data showed several key C.IT dividends for business, including greater innovation, lowered costs, stronger customer relationships and increased productivity (which we will discuss in detail in part 2).

Lowered Cost + Increased Innovation

The "primary driver of adopting C.IT" in the workplace, "[is] the reduction in cost of the equipment, infrastructure

FIG 1: WHAT IS THE COMMERCIAL VALUE OF C.IT BENEFITS TO YOUR BUSINESS?

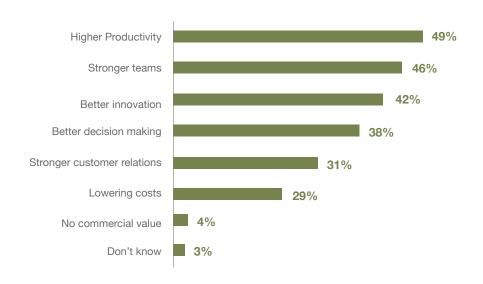
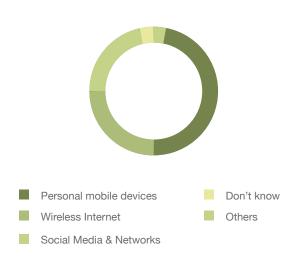


FIG 2: WHAT IS DRIVING C.IT IN YOUR COMPANY THE MOST?



and data" (Head of R&D, UK). As a result of technological advances, globalization and C.IT, employees are far less reliant on employers for training, understanding and access to technology.

Monolithic corporate business systems which once required special training are being replaced with streamlined Internet technologies, greatly reducing the cost of employee training and education. At the same time, greater knowledge of new technologies means greater innovation in the work place.

A recent Dell survey noted that 61% of generation Y employees, and 50% of 30+ employees use technology tools in their personal life that are more innovative and efficient than those used in their work life.⁴ Accordingly, an increasingly sophisticated workforce is leading to the rise of the 'intrepreneur': creative employees in the middle ranks of large-scale businesses. This can mean not only more streamlined processes, but also the production of new concepts and services.

The innovation dividend is one of the most critical benefits of C.IT for business, with over 40% of business leaders surveyed supporting this conclusion. The combination of new technologies and new ways of working is unleashing positive competitive pressure into the market–generating new products and supply chains–and driving significant innovation both in the workplace, and in the production of consumer facing products and services. Ultimately, C.IT is 'improving technology' and allowing businesses to serve customers, vendors and dealers in a better, innovative way' (CIO, India).

Stronger customer relationships

Business leaders singled out, "the potential to meet the needs of consumers", as the result of C.IT that has had the most impact on their own company, with almost twothirds of business leaders (59%) making this observation. Moreover, innovative mobile technology is "increasing the availability and reachablity of...consumers" (C-suite, India). So with C.IT, the customer 'feedback loop' gets tighter. This means that business can develop stronger relationships with their customers, reaching out to them on a variety of platforms and actively engaging them through mobile technology. Greater feedback and collaboration means companies can build stronger brands, and with mobile e-commerce set to account for 25% of online sales (in the US), increased and more accessible methods of communicating with customers means big business opportunities.

1.2 C.IT 'From The Inside Out': Consumer Benefits

When we talk about the consumer benefits of C.IT, Gaurav Dhall highlights that we should be talking about two sets of consumers: internal consumers, who are employees and external consumers, who are customers of the enterprise. Both groups are set to see gains in flexibility and levels of satisfaction.

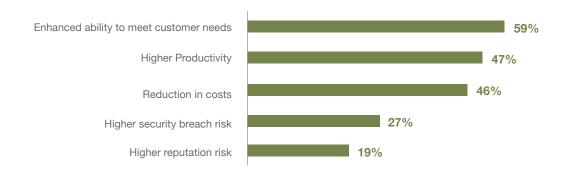
Internal Consumers: Employee Benefits

C.IT is changing assumptions about the world of work,

⁴ Dell Survey 'C10 strategies for consumerisation: The future of enterprise mobile computing". Paul D'Arcy, 2011.

⁵ Gaurav Dhall, 'Interview with TLG'

FIG 3: AS A RESULT OF C.IT, WHICH HAS THE MOST IMPACT ON YOUR BUSINESS?



revolutionising the status quo, and transforming corporate cultures and performances. C.IT 'gives people the

opportunity to work, where the work is required to be done', 'fundamentally increasing the quality of work-life' for employees (CIO, Australia).⁶

Half of business leaders polled said that the number one change to their business model as a result of C.IT was to introduce flexible and mobile working opportunities for staff. Increased use of mobile technology in the workplace allows employees to access corporate systems and data on the go, on the train to and from work, or at home. Disregarding what this means for productivity (which we will discuss in the next section), greater flexibility can mean greater employee satisfaction. Employees, notes Dhall, will be able to work "in a happier situation...from a device or technology of their choice, as opposed to them being buckled down on a seat in front of a computer..." ⁷

This means understanding that C.IT for the 'internal consumer' is not about ROI, but about the 'big impact' – the

'employee satisfaction impact' – and the 'overall impact on the business'.8

Additionally, there is a strong feeling among business leaders that communication between their colleagues is improving because of C.IT. As a result of cloud, mobile and particularly 'social' technology, employees now have better access to each other; resulting in "better understanding amongst employees" (C-suite, USA), and greater positive engagement. Greater collaborative ability can increase efficiency – benefiting both the worker and the business as a whole.

External Consumers: Customer Benefits

C.IT is also generating many positive benefits for customers, in terms of lowering prices, increasing customer service, and giving them a greater stake in their own economy. In particular, it "helps to maintain a balance between the [customer's] expectations and enterprise requirements" (CFO, US). C.IT empowers workers as consumers. The combination of new technology, hardware and software, as well as new, more mobile prod-

⁶ YouGov Plc polling data for TLG and Wipro

⁷ Gaurav Dhall, 'Interview with TLG'

⁸ Gaurav Dhall, 'Interview with TLG'

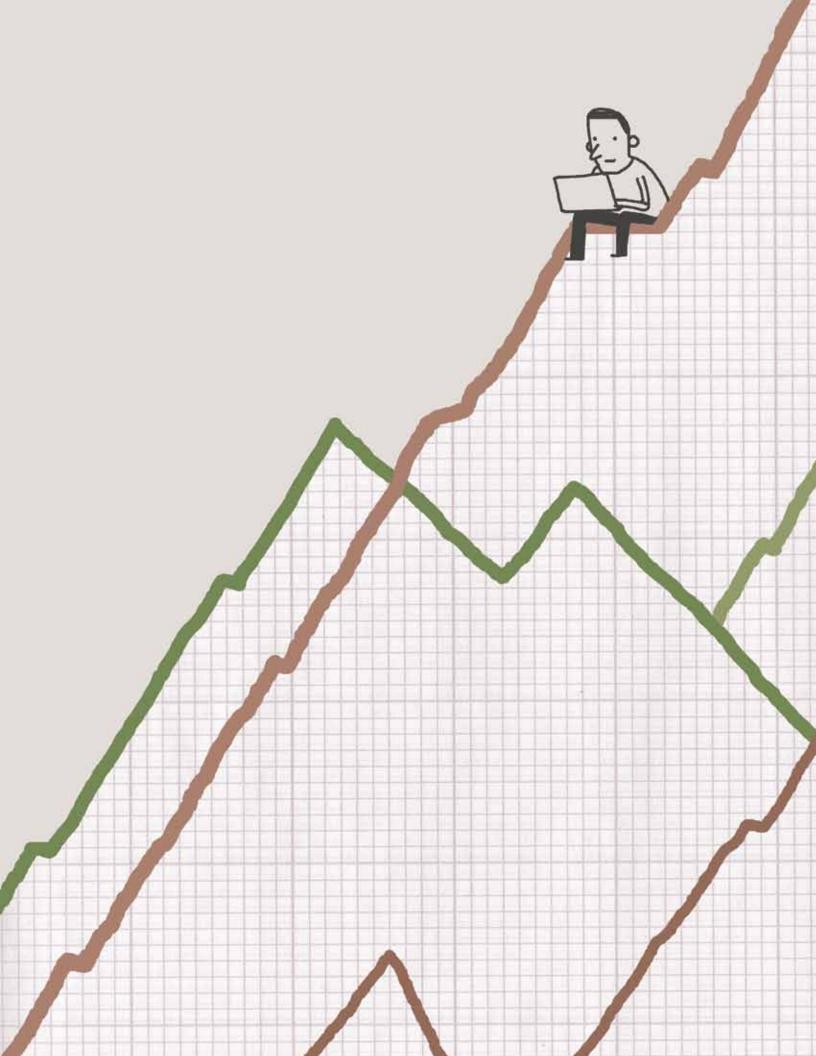
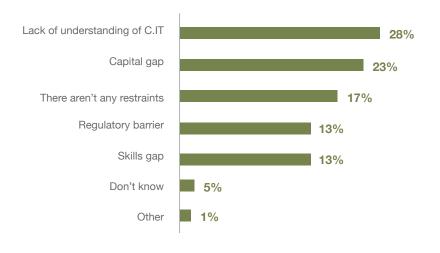


FIG 3: WHAT WILL ACT AS THE BIGGEST RESTRAINT ON THE POSITIVE IMPACT OF C.IT?



ucts and services gives consumers added flexibility and control over varying aspects of their lives, from financial services to retail and leisure. Consumers' ability to interact with businesses and brands when and how they want to means higher customer satisfaction and, as Dhall highlights, generates a classic 'win-win' scenario: "... if consumers get information and access to services through mobile devices and they feel secure about it, and they're able to transact 'on the go', at their pace, at a time they want to do it, their satisfaction is far higher and businesses get immense benefit".9

Additionally, with business integrating employee innovation, the consumer is likely to see better service, more

"...If consumers get information and access to services through mobile devices and they feel secure about it, and they're able to transact 'on the go', at their pace, at a time they want to do it, their satisfaction is far higher and businesses get immense benefit."

specialised products and an increase in the value of their feedback on products and services.

Part 2. Special Focus: Productivity Gains

The most dominant theme emerging from senior business leaders when considering the Consumerization of IT (C.IT) is the positive influence C.IT is having on productivity. Some 40% of business leaders claim that 'higher productivity' is noticeable in their companies as a result of C.IT, with a further third believing it will have a positive impact in the next 12-24 months. Perhaps most strikingly of all, our data shows that no business leaders in any market doubt the productivity benefits of the Consumerisation of IT.

The influence of C.IT on productivity appears to be multidimensional, with increases in productivity predicted to come through a) better cooperation and collaboration, b) more efficient operations and c) heightened customer responsiveness.

Senior business leaders from different markets also

⁹ Gaurav Dhall, 'Interview with TLG'

single out the benefits of greater flexibility, 'openness' and mobility from C.IT. "The Consumerisation of IT allows greater accessibility and collaboration between employees... help[ing] to improve productivity" (Operations Director, US). One-in-two business leaders surveyed recognise this as the leading benefit, both in its own terms, and for building stronger collaborative working.

Social Productivity

Driving this increase in collaboration is 'social' technology that allows workers to build better relationships and conduct business within a wider network. C.IT "simplifies access to information and facilitates communication" internally as well as externally (CTO, France). Social media platforms are central 'facilitators' of communication, as are different aspects of technology, such as Wi-Fi, that make these platforms possible. Although Dhall notes that "social is not fully adopted in the workplace," he is confident that it will only increase as business recognizes social's power for driving greater collaboration. ¹⁰

Compounding the productivity gains stemming from social technology is the proliferation of smartphone use by employees – both in, and outside, the work place. Smartphones are one of the key drivers of both C.IT and the pursuant gains in productivity, with over 60% of workers using smartphones at work.¹¹ 'Mobile workers' (those who actively use their smartphones to conduct business) can stay connected – allowing them to work non-traditional hours in non-traditional settings. A Dell survey finds that smartphone devices that allow for greater work mobility enable workers to add 51 minutes back to their workday¹². For many executives (47%), the uplift in productivity from C.IT and smartphone use is already feeding through into the workplace, as well as being a trend that will continue to grow stronger.

The increased use of social, mobile and cloud technology that has resulted from C.IT is also driving up productivity by increasing efficiency and simplifying administra-

The increased use of social, mobile and cloud technology that has resulted from C.IT is also driving up productivity by increasing efficiency and simplifying administrative procedures

tive procedures. Executives polled noted that employees "will work more efficiently through mobile devices and tablets" (CIO, India).

In large part 'digital natives' – younger workers for whom technology has always been part of their daily life – are driving these gains in efficiency. As smartphones and apps become more 'mainstream' companies need to embrace the technological needs and likes of the younger generation workers in order to harness their skills. This will also help companies attract a forward-looking and engaged workforce, which can be a competitive advantage.

Whilst it is not possible to confidently predict all economic and social outcomes of C.IT, the consensus is overwhelming that businesses will become more efficient while generating positive commercial and social outcomes, ultimately demonstrating the value in early investment both in structures and people.

¹⁰ Gaurav Dhall, 'Interview with TLG'

 $^{^{\}rm 11}$ Intel. "Consumerization: What is in Store for IT? Insights and Market Research". July 2012

 $^{^{\}rm 12}$ Forrester. "Increase Productivity by Providing Notebooks Beyond Road Warriors". Oct. 2008

PART 3. Trends and Challenges of C.IT

Through our research with business leaders two key challenges of C.IT became apparent; lack of knowledge and understanding of C.IT and issues relating to technology, ownership and security.

3.1 Skills and the Workplace

Over a quarter of business leaders (28%) named the lack of understanding of C.IT as the biggest restraint on the positive impact of this phenomenon. Additionally, a quarter of respondents noted that the biggest deficit of C.IT related skills was found in the CIO's office. Our research shows, however, that there is a desire among executives to know more about the concept and potential of C.IT. There is also a sense among business leaders that the CIO's team could be developed and that their role will – and must – change in order to adapt and leverage new technologies

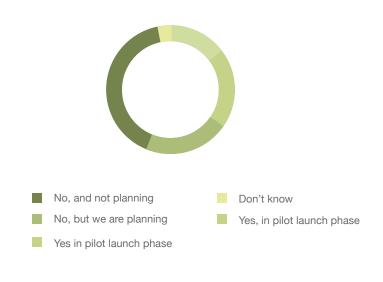
Furthermore, C.IT could precipitate a shift in the function of the CIO to concentrate to a greater extent, and drive greater efficiencies from, systems and processes. This process will be compounded as innovation is no longer confined to a department, and as more radical 'surfing' approaches are adopted. Wipro's Dhall observes and predicts that, "innovation is moving" from technology teams to all sectors of the business. Consequently, companies will 'smart source' across their various divisions for client solutions.

3.2 Technology, Ownership and Security

In keeping with innovation in other aspects of technology, there are security issues associated with C.IT. While this is predictable, it "can hamper the positive influence of C.IT" (Finance Director, UK). Issues around security stem from a "fear of the unknown and a lack of standardization", notes Dhall. Often companies do not have tested technologies, nor do they have tested systems that exist to secure their technology.

CXO's express their biggest concern as being the threat

FIG 4: DOES YOUR COMPANY HAVE A BYOD POLICY?



to Intellectual Property (and a risk of hacking) as a result of C.IT. Interestingly, respondents in the UK highlighted security breaches of financial accounts as the single biggest security threat from C.IT. Issues of this nature come into play when employees want to use their own devices (often more technologically advanced than those they might be using at work) to conduct business and access corporate services. While the use of employee owned smartphones will reduce costs for businesses, legal restrictions must be placed on the use and control of content on personal devices. While noting that each company must develop its own strategy to address this issues, Dhall suggests that employees sign contracts with their employers "giving the company consent to take control of some part of the device or all of the device and wipe it clean" if the employee leaves the company. 14 This way, businesses can leverage the efficiency gains ensued by using technologically advanced devices while also protecting their content.

¹³ Gaurav Dhall, 'Interview with TLG'

¹⁴ Gaurav Dhall, 'Interview with TLG'

Consumerization of IT in numbers

What Business leaders think.

more than 2 in 5

respondents name higher productivity as the biggest impact on business as a result of consumerization of C.IT

almost 3 in 5

respondents from the US said that their companies introduced flexible/ mobile working opportunities as a result of C.IT

more than 50%

named the ability to meet customer need as the biggest impact on business as a result of C.IT

1 in 5

respondents said that the lack of understanding of C. IT is the biggest restrain on the positive impact of this trend

Whether or not a company has a Bring Your Own Device (BYOD) policy is a common theme when discussing security and C.IT. Surprisingly, over a third of business leaders polled say that their companies don't have a BYOD policy and are not planning to adopt one. This statistic reflects business leaders' wariness of engaging a policy that can be seen to pose challenges relating to corporate content use and device ownership. Moreover, for business leaders it is less important whether it's an employee owned device or a company owned device, what matters are the legal issues around access, particularly ownership and the innovation it can facilitate and inspire.

Restricting the use of personal devices may decrease innovation, especially among younger workers. For 'digital natives' who have been using smartphones and devices for most of their adult lives, "pushing them back onto PCs and desktops" will result in "dissatisfaction at

some stage," notes Dhall. Consequently, it may be in the business' best interest to embrace the "mobilisation" of the work force, finding innovative means and technologies to protect corporate data and intellectual property.

Conclusion

The impact and implications of the Consumerisation of IT suggest that there is a positive impact for business (employers) and internal consumers (employees). The former is making productivity gains. The latter is experiencing a higher quality of life through new technologies, and having greater influence and opportunity in the economy, either as an entrepreneur or 'intrepreneur'.

Gaurav Dhall at Wipro refers to the "perfect storm" of "analytics, cloud, mobile and social" as being both a positive but unpredictable driver for profound changes in the way we work and live our lives.¹⁵

This points to a potentially more profound effect and

¹⁵ Gaurav Dhall, 'Interview with TLG'

almost 73%

of respondents from France named 'risk of hacking' as their primary C.IT related concern

2 in 5

respondents from the UK named 'security breach of financial records' as their primary C. IT related concern

more than 50%

respondents said that their companies put in place advanced security standards as a result of C.IT

over a third

of respondents said that their company doesn't have a BYOD policy and is not planning to adopt one

implication than higher rates of collaboration, innovation and productivity. The Consumerisation of IT can make the market work better.

To put it another way, the 'invisible hand' is multiplying. "Corporate accountability" will become stronger (CTO, USA), and companies and markets will become more transparent as a result of C.IT – a good thing for Capitalism – with a corresponding positive impact upon competitiveness. So C.IT is making companies work smarter. In doing so it is making Capitalism work better.

At a time when there is pressure on business to rebuild stakeholder relationships – and demonstrate a greater commitment to society – the rise of mobile has the potential to deliver positive commercial and social outcomes.

Methodology: The opinion research among senior business leaders was conducted by YouGov plc. YouGov surveyed over one hundred CXOs in five countries, from the USA, UK, France, India and Australia.

The respondents came from private sector companies; both privately owned and publicly listed, with operations in more than one country and with a turnover of more than \$250 million.

All of the respondents were either based at the company headquarters or at the main operational office of the company.

The interviews were conducted offline by telephone, during July-August 2012.

90% of organizations

will support business applications on personal mobile devices by 2014

Source: Gartner.com





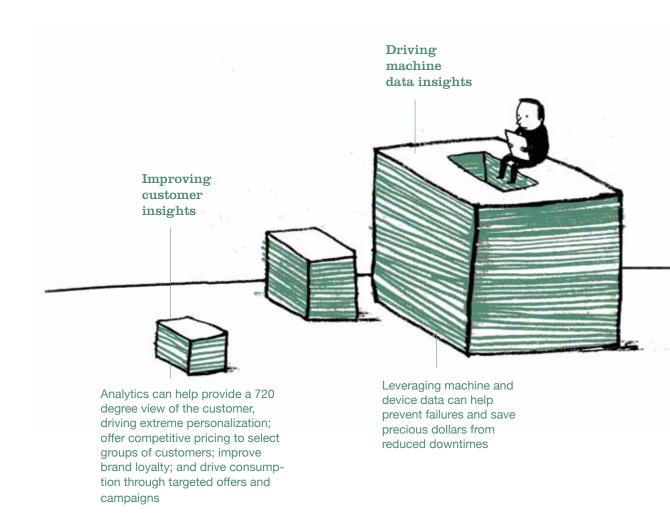
Big Value in Big Data

Quality, not quantity

You would imagine there would be delight at the flood of numbers we are witnessing. That's a flawed notion. It is ironic that in a world of shrinking resources, the one plentiful thing we have – data – is threatening to smother many

In my interactions with global businesses, I get the feeling that IT folks are being overwhelmed by the stream of data they are now being subjected to. They don't know where to look for value in Big Data. What they are saying is, "Can you turn quantity into quality?" What they mean is, "Help me find business use for this vast mountain of data we capture".

The key to effectively leverage data is to first create a strong business case: how much money can it save me? How much time can it save me? What is the value of that time? How much can I cut back on resources if I use Big Data and analytics? What insights can it lead to that create additional business, result in new products, help address new markets, or ensure we stay ahead of competition? Can it help create customer delight? What is that customer delight worth? The odd thing is that many businesses think they need to tap fresh or additional data sources in order to unlock that value. Admittedly, this is often the case. But equally often we have seen that reality can be surprisingly – and pleasantly – simple.



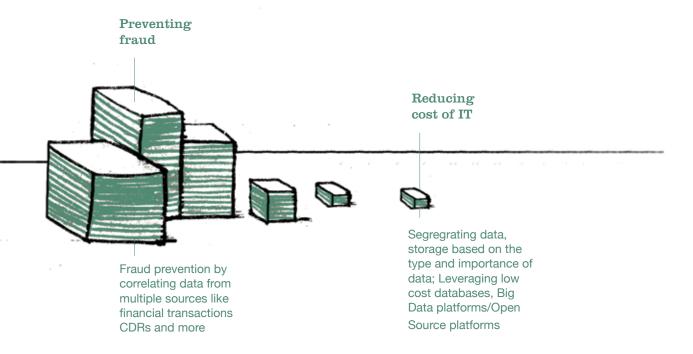
Instead of more data, what could be missing are factors such as the availability of critical data in real time. Take the case of a manufacturer of heavy mining equipment. The manufacturer wanted to charge for equipment on per mile basis against stringent SLAs.A few years ago, that would have been a simple service to devise; it would have more or less meant that the manufacturer divide the cost of the equipment and maintenance by the expected average lifetime of the equipment. Using this method, admittedly over-simplified here, the manufacturer would have had to bring a vast amount of backup equipment to ensure SLAs were met. This would substantially increase the cost of the service, making it unviable. Not anymore.

The manufacturer is our customer. We enabled this service for the customer by monitoring assets in real time, predicting failure and ensuring the equipment is serviced before it breaks down – meeting demanding SLAs.

Leveraging data and analytics in real time has helped them create an alternative revenue stream. The fact that they can meet those stringent SLAs also means that their customers are happy.

In this instance, the quantity of data did go up substantially. But that was not adequate in itself. We had to sift through the entire data chain in real time: from capture, augmentation, cleansing and analysis to action. We were not trying to bridge a gap in understanding what was happening to the drilling equipment in the field. The data on equipment performance was always there for the asking. It could have been accessed as a historic data dump anytime. Instead, we had to turn to real time management of the data as well as the analytics.

Use cases for Big Data can be numerous. In each instance, organizations must first agree on the business value that can be mined from data. Only then should they



embark on how to explore data to extract that value.

Turning Big Data into a mine of actionable intelligence requires an adept team. It needs appliances to handle and massage the data. In-memory computing, pattern hubs and the ability to harness data in motion are the new weapons to tame the Big Data problem.

This is also where uncertainty begins to haunt IT teams: The resources required, the tool kit that will help sift through the chaos of numbers, the people, the pitfalls and the costs involved are not clear currently. Leveraging Big Data and analytics in your business is inevitable. Build a use case for it. Everything else will begin to fall in place. A strong use case is usually a good starting point because it lets you look for quality rather than get lost in quantity. ■

Size of digital universe 2011

1.8 zettabytes

Predicted growth 2009-2020

35 zettabytes/yr

5-6% higher

Companies that inject big data and analytics into their operations show productivity rates and profitability that are 5-6% higher than those of their peers.



The Data Directive: Report Summary

An Economist Intelligence Unit report commissioned by Wipro

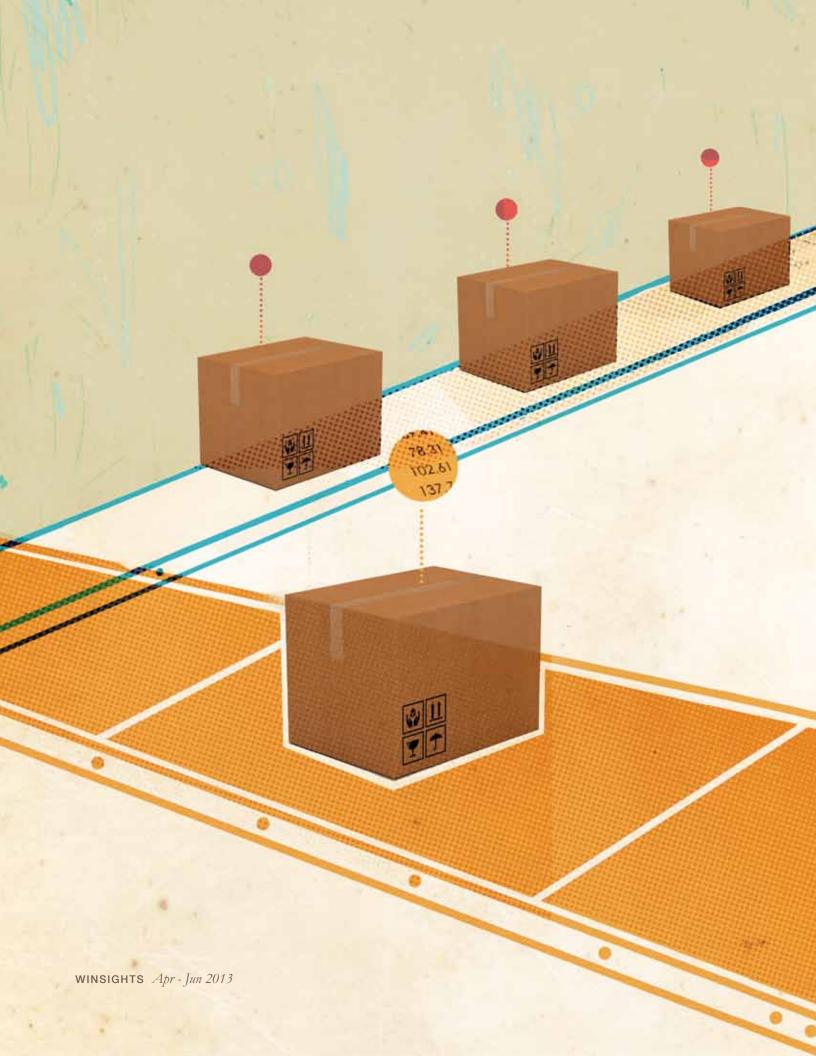
Discussions about the transformational power of data have been hard to miss in recent years. Indeed, speculation over the impact of all aspects of data, including what is called "Big Data", has become so frequent and over-hyped that it is difficult to separate the signal from the noise.

In July 1995 Jeff Bezos, a former hedge fund executive, launched a website that aimed to upend the traditional way of selling consumer goods, starting with books but soon expanding into a diverse array of products. Amazon.com went on to disrupt the way people typically shop and the book publishing industry itself, en route to becoming the world's largest online retailer. Back in the 1990s, the disruptive technology was the Internet, but today, the myriad forms of data emerging from an Internet-enabled digital world promise to have an equally dramatic impact.

From beer companies like Anheuser-Busch using data to understand where, how and when to place its products to optimize sales, through to businesses like Universal Music using data to better identify up-and-coming artists, the data revolution is only just catching on. Recent research by the Economist Intelligence Unit (EIU), commissioned by Wipro, highlights these trends, while uncovering how much work remains to be done.

Discussions about the transformational power of data have been hard to miss in recent years. Indeed, speculation over the impact of all aspects of data, including what is called "Big Data", has become so frequent and over-hyped that it is difficult to separate the signal from the noise. This is not to suggest that the issue of data is not a priority in boardroom discussions today. The EIU's survey of over 300 C-suite executives, spanning a range of industries and functions, suggests that only a tiny fraction are not currently prioritizing the collection of data. A high proportion of companies are storing increasing amounts of data in the belief that it will be of value to them.

There are many examples of companies that have made data the core of their business models and that couldn't exist without it. These firms are predominantly within the high-tech sector and financial services sector—whether Google, Amazon, or one of many hedge funds that compete on their ability to uncover insights from informa-



tion. Overall, a small core of businesses are genuinely rethinking what data means for them, and how to organise themselves around it. But for many companies today, the real data revolution still lies ahead. There is far less evidence that corporate leaders are systematically using data to strategically transform their companies or business models.

The organizational data leaders

While it is difficult to find examples of data that companies do not seek to squirrel away for possible use, the function that stands out as the single largest successful user of data appears to be the chief marketing officer. While marketing is currently the most immediately visible user of data, other functions in business are making wide-ranging use of data to support myriad initiatives. As businesses globalise, for example, data has made a clear positive difference to CEOs in how they plan for geographic expansion.

Two things stand out in an analysis of the findings of this survey. The first is that for a cohort of typically confident and bullish executives, today's leaders are unusually humble about their grasp of data. The second, more important point that stands out, and which is confirmed by interviews for the report, is that the use of data today often centres on optimising existing processes and tactics, rather than driving genuine strategic transformation.

Data-driven industries

Although it is not difficult to find examples of data-centric companies in nearly any industry, it is also obvious that some sectors have embraced data more rapidly than others. The most high-profile are Silicon Valley's high-tech companies. But they are not alone. As the survey highlights, many companies within financial services and professional services are highly proficient in making use of data. Overall, these three sectors are the most likely to have created a well-defined data management strategy, or are marshalling resources toward this.

By contrast, other sectors are not yet consistently

prioritising data-led initiatives or skills. For example, the survey shows that while both the manufacturing sector and the retail and consumer goods sector collect large volumes of data, they more often admit to not consistently maximising use of this resource than their peers in finance or high-tech. Across a range of data types, barring some exceptions, these sectors routinely collect information less often; and when they do, they analyse it for insight less frequently. Not all of this is due to a lack of desire, but it also reflects the fact that creating a leading data competency requires investment in both technology and skills, which lower-margin sectors will find more challenging.

The data challenges

The list of challenges to companies seeking to become more data-centric is long, but leading it is the ability to determine which data are truly useful. In many conversations with C-suite executives, a central issue that emerged was how to use data to find the proverbial needles in the haystack—uncovering the valuable insights that no one else had spotted.

The shift to a data-centric world is opening up new opportunities all the time. But this does not mean it is an easy task for companies to take advantage of them. Uncertainty over the future and difficulty in filtering the signal from the noise; immature tools; limited skills and expertise in this domain; the challenges of dealing with IT—all such concerns come into play, just as they did at the dawn of the Internet era.

Most companies are now realising that the era of data could prove just as significant as the shift to Internetenabled business. A growing proportion recognises the transformational power of data for their business, although this group also admits to being humble about the learning curve ahead.

The day is not far off when companies will recognise the value of data and report it as an asset in their balance sheets. ■

Key Findings

- There is a strong correlation between earnings growth and strategic use of data. Although correlation does not suggest causality, this study finds sharp differences between "high growth" firms, based on their EBITDA performance over the past three years, as compared to their "no growth" peers.
- All C-suite functions are finding uses for data, but so far data has proved most valuable for marketing leaders. From better ways to segment the customer base, to rethinking the ideal product mix in a retail store, marketing leaders are finding wide-ranging uses for their data to help improve how they market their company's wares.
- The financial services sector, technology companies, and professional services firms are most prepared for the data age.
- The majority of companies have yet to uncover any data-fuelled strategic transformation within their business, with most efforts today centred on optimisation.
- Businesses are stockpiling an ever-growing range of data and expect data gathering to continue to expand rapidly.

- Whether social media sentiment, machine-generated data via sensors, staff emails, market data or otherwise, firms of all shapes and sizes are now collecting more information than ever before.
- Recognition of the value of data is high, but companies still struggle to extract strategically useful insights.
- Working out which data matters most is the top challenge for firms, but there are wide-ranging issues to overcome. Clarity on which data matters most, amidst the data stockpiling now under way, is what tops the list of barriers.
- Those companies that claim to be best at extracting insights from data are not necessarily looking to their CIOs to lead on this initiative. There is a spike to preference towards the CEO and other C-suite leaders among those companies best at extracting strategic insights from data.

You can download the full report at http://www.management-thinking.eiu.com/data-directive.html



32% of chief strategy officers

are using Data to help identify new revenue streams or markets or business models

Source: Economist Intelligence Unit report







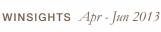






The healthcare industry is in turmoil. Pharmaceutical companies face expiring patents on blockbuster drugs and attack from cheaper generics; medical device makers need to lower costs and innovate for emerging markets; hospitals are struggling to contain overhead and care for the uninsured and insurers must provide near-universal coverage.









The healthcare industry is in turmoil. Pharmaceutical companies face expiring patents on blockbuster drugs and attack from cheaper generics; medical device makers need to lower costs and innovate for emerging markets; hospitals are struggling to contain overhead and care for the uninsured and insurers must provide near-universal coverage. Under regulatory, political and public scrutiny in the light of recent scandals involving drug recalls, inaccurate regulatory reporting and concerns over the pricing of drugs, how to provide costeffective, high-quality care that is also patient-centric is a question every stakeholder in the global healthcare industry is asking.

While each player is each facing a unique issue, integrated analytics may be the answer for all. Several in the industry are already using this approach. GE Healthcare's Medical Quality Improvement Consortium, powered by Intel, analyses 1.6 billion documents representing 30 million de-identified patient records and 209 million office visits, helping participating providers deliver the best care most effectively. The University of Pittsburgh Medical Center (UPMC) is looking to consolidate and analyze clinical, genomic, administrative and financial data from across UPMC's network of 200 individual departments. Business analytics is already helping pharmaceutical companies make wiser decisions on which products they should sell where, when and at what price points, including offering suggestions for dealer incentives, stock levels and promotion strategies. Biopharmaceutical giant AstraZeneca has joined hands with WellPoint, an insurance and health benefits provider, to understand which treatments give the best value for money. Philips is experimenting with remote patient monitoring where its devices are linked with patients who are connected with paramedics and doctors at its back offices.

From the above instances, it is evident that players are recognizing the importance of data. Clinical data is, of course, just one side of the data paradigm. Imagine the opportunities that open up when clinical data is

26-30 31-35 36-40 41-45 46-50 -55

combined with claims and cost data, pharmaceutical research and development data, and patient behavior and sentiment data. Delivering truly patient-centric care requires predictive analytics and modeling, where historical data is used to identify risks and opportunities. This would also require a blurring of the lines between the traditionally separate positioning of those that provide care and those that pay for it.

The key need is to integrate historical patient data from payers and real time clinical data from providers to improve the outcome and quality of care. Consider cloud platforms where data sit on remote servers, accessible to multiple users, connecting hospitals, physicians and patients. Such collaboration will help bring down costs, deliver better care and create intuitive reimbursement models based on outcomes.

The biggest challenges will be complexity, heterogeneity and volume of data. The ability to combine, normalize and harmonize this information from multiple stakeholders will be the key to success. ■

\$450 billion

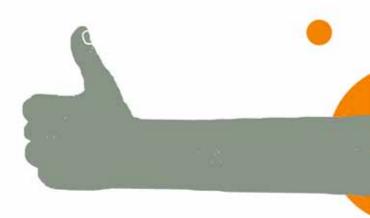
Big data analytics tools along with patient lifestyle changes can help save the health care industry up to \$450 billion

Source: McKinsey & Co.



Social Strategies That Work

Businesses that thrive on social platforms don't just sell stuff—they also help people connect.



More than a billion people use social platforms such as Facebook, eHarmony, Renren and LinkedIn. What's the attraction? They satisfy two basic human needs: to meet new people and to strengthen existing relationships. Fee-based dating websites, which collectively grossed \$1 billion in 2010 by connecting strangers, now account for an estimated one in six new marriages. Facebook, which fortifies friendships, boasts a staggering 750 million users and a valuation in excess of \$100 billion.

Numbers like those attract traditional companies, which have launched Facebook fan pages and Twitter accounts in hopes of finding new customers and engaging existing ones. But few of those companies succeed in generating profits on social platforms, despite collecting lots of "friends" and "followers."

To find out why some firms fail while others succeed in these venues, I studied more than 60 companies across industries ranging from manufacturing to consumer packaged goods to financial services as they ventured into online social realms. What the poorly performing companies shared was that they merely imported their digital strategies into social environments by broadcasting commercial messages or seeking customer



feedback. Customers reject such overtures because their main goal on the platforms is to connect with other people, not companies. That behavior isn't hard to understand. Imagine sitting at a dinner table with friends when a stranger pulls up a chair and says, "Hey! Can I sell you something?" You'd probably say no, preferring your friends' conversation over corporate advances. Many companies have learned that lesson the hard way. In contrast, the companies that found significant returns devised social strategies that help people create or enhance relationships. These work because they're consistent with users' expectations and behavior on social platforms. To return to our dinner analogy, a company with a social strategy sits at the table and asks, "May I introduce you to someone or help you develop better friendships?" That approach gets a lot more takers. (See the exhibit "Digital Strategy vs. Social Strategy.")

You scratch my back...

To explain successful social strategies, I find it useful to characterize them in a simple statement with three components that all the strategies share:

Successful social strategies (1) reduce costs or increase customers' willingness to pay (2) by helping people establish or strengthen relationships (3) if they do free work on a company's behalf. This definition yields four types

People's main goal on social platforms is to connect with other people — not companies.

of successful social strategies that firms can pursue (see the table) "Four Ways to Pursue Social Strategies"

- Reduce costs by helping people meet
- Increase willingness to pay by helping people meet
- Reduce costs by helping people strengthen relation ships
- Increase willingness to pay by helping people strength en relationships

The work people do on a company's behalf can include customer acquisition, supplying inputs such as R&D and web content, and selling the company's products or services.

To see how the strategy of reducing costs by helping people strengthen relationships works, consider Zynga, a three-year-old company whose free social games, including FarmVille and CityVille, are on track to generate

Idea in Brief

Most companies don't succeed on online social platforms

That's because they merely import their digital strategies to these venues. But commercial messages and feedback opportunities are not what customers primarily seek. They want to connect with people, not companies.

Businesses that win in this arena adopt a social strategy that (1) reduces costs or increases customers' willingness to pay (2) by helping people establish or strengthen relationships (3) if they do free work on the company's behalf. Successful social strategies have all three components. They're built, bit by digital bit, through helping people with the social challenges of connecting and interacting with friends and strangers.

\$1 billion in revenue in 2011. The games run inside the Facebook environment and have attracted more than 250 million users (the typical player is a middle-aged woman). The Facebook platform allows the games to access the demographic data of players and lists of their "friends," as well as to post status updates that those friends can see. In CityVille, players plant seeds on a virtual plot, cultivate the land, harvest crops, and sell them to local virtual businesses. They then use the profits to buy more seeds, build businesses, or expand the city.

The game presents players with obstacles such as limits on the number of plots or businesses they can possess. To increase the limit, players can pay with virtual goods they buy from Zynga—a major source of the firm's revenues. Or, to the social-strategy point, they can enlist friends, via Facebook status updates or Zynga's messaging system, to help. And they can return the favor by sending virtual gifts to friends and by visiting their plots.

The positive impact that Zynga's games have on players' social lives is clear. According to a survey-

done by Information Solutions Group, almost a third of the players reported that the games helped them connect with family and current friends; another third said games facilitated connections with old friends; and a third used the games to make new friends. My interviews with dozens of players revealed how. Many use the opportunity as an excuse to connect. A woman with two children told me, "When I am done with work and kids, I want to reach out to my friends, but it's too late to call. So I go to play, and see if I can help them out with something. They notice it, which helps us stay connected." Others consider posting a game-status update on Facebook as an invitation to contact them. A younger male player said, "I am not going to post on Facebook that I had a bad day, but I might mention something about it, when I post, that I need something in a game. My friends will see it and often someone will call or e-mail."

To obtain these social benefits, people undertake actions that help Zynga. In exchange for an opportunity to re-establish and maintain contact with friends, players encourage others to join or return to Zynga's games.

By my estimates, those social mechanisms slash Zynga's customer acquisition and retention costs by half, improving its profitability by approximately 20 percentage points. Hence, Zynga's social strategy (1) reduces its acquisition and retention costs (2) by allowing people to reconnect with friends (3) if they invite them to return to the game.

The reviewing site Yelp uses a different type of social strategy: It reduces costs by acquiring its most valuable content for free by helping people meet. Advertisers provide Yelp's revenues, but its content—18 million reviews of local establishments so far—is written by an educated cadre of volunteers, called Yelpers, mostly in their twenties and thirties. The site traffic, about 50 million visitors a month, attests to the usefulness of the reviews; it's the company's social strategy that significantly accounts for that quality.

The most passionate and prolific Yelpers may be invited to join the Elite Squad, a select tier in the Yelp community. Squad membership gives them access to exclusive Yelp-hosted events that range from the refined, such as cocktail parties at museums, to the rowdy, like a Mardi Gras-themed bacchanalia at San Francisco's Bubble Lounge, which attracted hundreds of revelers in 2009. Such events commonly produce new friendships and other relationships that continue beyond the confines of Yelp.

To maintain these social benefits, Squad members must continue to produce reviews, as the elite status is renewed—or not—every year. My interviews with elite Yelpers indicate that they will continue to write reviews specifically to maintain their status. The effects for Yelp's business are substantial. My research shows that an average elite Yelper will write reviews at a constant rate for nearly two years, whereas otherwise identical non elite Yelpers without such social benefits will reduce their contributions after about six months. Therefore, the average elite Yelper will produce about 100 more reviews than a non elite; without these elite contributions, Yelp's review stream would fall by about 25%. Thus, Yelp's

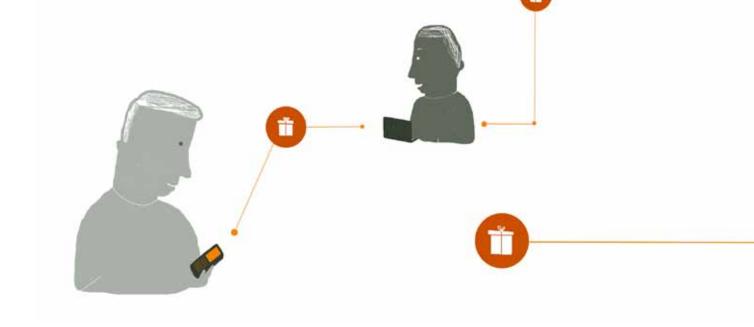
social strategy (1) helps it obtain quality content for free (2) by allowing the best contributors to meet like-minded people (3) if they write reviews.

Business and pleasure

Because Zynga and Yelp are online startups with inherently social products, devising their social strategies is relatively straightforward. But companies in very different sectors are developing social strategies as well.

Consider eBay's Group Gifts online application, launched in late 2010, which people use to pool funds to buy gifts for their friends. A group organizer logs on to eBay and names a gift recipient, either directly or by picking the name from a list of her Facebook friends. eBay then offers a set of general gifts, or the organizer can authorize an eBay application to access the recipient's Facebook "about me" profile and base a gift recommendation on that. The organizer then selects a gift and issues an invitation to other contributors by posting a request to contribute on her Facebook page. The invitation contains a link to the eBay gift page, where contributors can contribute and write a note to the recipient. When the gift price is reached, eBay sends the gift and well wishers' notes. The social benefits are clear: Group Gifts helps people purchase better-targeted and moreexpensive gifts than they might otherwise. That not only strengthens relationships with the recipient but also can help enhance relationships among the joint gift givers. As one interviewee said, "If it wasn't for the Facebook update, I would never know about the farewell gift for this guy, and no one asked me to contribute. But I saw this and chipped in, and just yesterday I got a thank-you note....I think it will be easier to stay in touch with him."

To obtain such social benefits, people must advertise Group Gifts to their friends and respond to their friends' advertisements. Such friend-to-friend advertising generates dramatic results: A third of Group Gifts participants sign up for new PayPal accounts, and a third return to eBay within a month to purchase other items. What's more, the average price of Group Gifts goods is five times higher than that of an average eBay sale. Thus,



eBay's social strategy (1) increases willingness to pay (2) by allowing people to strengthen their friendships through gift giving (3) if they ask their friends to buy from eBay.

Social strategies can also be tailored to address the challenges of meeting people for professional purposes. American Express developed such a strategy for its OPEN credit cards, which target small business owners. Customer churn is a challenge in the credit card business, so AmEx set about making OPEN cards stickier. Initially, the company hosted conferences focused on small business management for card members and then launched an online platform, called OPEN Forum, to showcase conference content. The forum site was a hit, attracting more than a million visitors a month.

Management observed that cardholders were connecting with one another through the content and launched a members-only social network called Connectodex, which allows users to post profiles, list services they offer and need, and freely connect for business. More than 15,000 small businesses have joined the network. Although members could use other professional networks such as LinkedIn, they report preferring Connectodex, as small businesses with which they interact are already vetted by AmEx. A Forrester Research study confirmed this need when it found that nearly half of owners of small businesses with more than \$100,000 in

revenues say they wanted to learn from other owners.

To reap social and networking benefits from Connectodex, small business owners must obtain or continue holding an AmEx OPEN card. As a result, the service has effectively reduced customer churn and increased willingness to pay for the card. At the same time, platform users' net promoter scores (a gauge of their likelihood of recommending the card) now significantly surpass nonusers' scores. Thus, the American Express social strategy (1) increases willingness to pay (2) by helping professionals to meet others like them (3) if they maintain their card membership.

How to build a social strategy

I have observed many companies seek to build social strategies, with vastly different outcomes. Those that failed in the effort focused on their business goals and paid less attention to customers' unmet social needs. These strategies didn't effectively help people with relationships, so they were unwilling to do jobs for the company. In contrast, companies with successful strategies first thought through how to address unmet social needs and then connected the proposed solutions to business goals. Because the process of identifying unmet social needs is often hard, I recommend that firms focus on helping people with four types of social challenges: connecting with strangers, interacting with

Digital strategy vs. Social strategy

The primary advantage of a social strategy over a purely digital one is in tapping into how people really want to connect—with other people, not with a company.



Digital Strategy

helps broadcast commercial messages and seek customer feedback in order to facilitate marketing and sell goods and services



Social Strategy

helps people improve existing relationships or build new ones if they do free work on the company's behalf strangers, reconnecting with friends, and interacting with friends.

Let's look at how a major credit card company I'll call XCard devised and tested a social strategy (the company requested that its name be disguised). The CMO assembled an eight-person team that included members from marketing, product development, and IT-plus consultants, myself included. The group ultimately reported directly to the CEO. We led the team in a structured strategy-development process in which team members devised at least one strategy for each of the four types of social challenges that card members may face. In each case, the goal was to increase card-member spending or retention, or acquire new customers, in exchange for solutions to those challenges. Each of the four social strategies, of course, adhered to the core principle: They reduced costs or increased customers' willingness to pay by helping people establish or strengthen relationships if they did free work on the company's behalf.

Social challenge A: Reconnecting with acquaintances and friends outside a core group can be awkward.

Social strategy A: Help people reconnect through shopping with friends. The team devised a program that would give cardholders an excuse to reconnect by inviting others who already had the card or who had agreed to sign up for one to join them for shopping. Shopping together at the same retailer at the same time would yield additional reward points.

Social challenge B: People need help interacting with acquaintances and friends outside a core group.

Social strategy B: Help people interact through gift giving. The XCard team envisioned a gift program in which, upon request, XCard would examine another member's purchases or purchase locations (only if they had opted into the program) and recommend gifts targeted to their purchase profile. The program would give members an incentive to use XCard more in order to build an accurate purchase history, resulting in well-targeted recommendations for friends.

Social challenge C: Finding strangers with whom you have something in common isn't easy.

Social strategy C: Connect executive women who have XCard's high-end charge card. Many of these customers travel frequently and have few opportunities to socialize with women like themselves. The team devised invitation-only events at exclusive hotels in major cities to convene these cardholders when they traveled.

Social challenge D: People find it uncomfortableto interact with strangers without first knowing more about them.

Social strategy D: Help moms with young children learn something about one another. These customers have an appetite for information about child care products, but some have difficulty finding trusted advice about them. The team conceived a branded card that would allow moms to access a dedicated social platform, search for other card holding moms who had bought a particular product, and connect to them. Only moms who made themselves searchable and continued to make purchases with the card would be allowed to search.

Theory into practice

Having identified several potential strategies for helping people create or improve relationships, the team evaluated them using three tests.

Social utility test: Will the strategy help customers solve a social challenge they can't easily address on their own? This test requires that you focus on an important—but unmet—social challenge for the target group. People doing such analyses often assume that if they don't personally experience a given social challenge, others don't either. That is usually wrong. Social-strategy development requires an unprejudiced look at the target group's social needs. The shopping-with-friends, executive-women, and moms strategies passed the test's requirement to address an important, unmet social need. This evaluation required researching the demand for social solutions in each group—for example, executive women's interest in networking opportunities. The

research revealed that although networking groups are plentiful, invitation-only events for executive women that capitalize on their heavy travel schedules are not. The team also confirmed that moms want to find other moms who have bought a specific product and that no existing tools allowed them to do so. Similarly, the research revealed a substantial appetite for shopping with friends. However, the team found that people would hesitate to use a program that, by making gift recommendations based on their purchase patterns, in effect revealed their purchase preferences to others. For that reason, the team disqualified the gift-giving strategy.

Social solution test: Will the strategy leverage the firm's unique resources and provide a differentiated, hard-tocopy social solution? The team realized that the card's leadership in an exclusive segment and its superior rewards program were distinctive. Those resources conferred a hard-to-replicate advantage for the executivewomen strategy and offered a better-than-alternatives option for that segment. Likewise, the shop-with-friends strategy continued to look promising, primarily because it leveraged the card's superior rewards program. The moms strategy didn't fare as well in this analysis because the firm lacked the detailed transaction data needed to create a service that competitors couldn't readily replicate or even outperform. Concerns also surfaced that large retailers of children's products, such as Toys "R" Us or Walmart, could create a more effective platform. The team sought to address this concern, but ultimately the moms strategy was disqualified.

Business value test: Will the social solution directly lead to improved profitability? This test requires that the strategy directly lower costs or increase willingness to pay. The executive-women strategy that had thus far survived stumbled here because of the small size of the target group—only 0.2% of cardholders. Although reducing defection among this small but disproportionately profitable segment could have a measurable bottom-line impact, the team determined that it was not as large as that offered by the shop-with-friends option.



First think through how to address customers' unmet social needs; then connect the proposed solutions to business goals

Yelp

acquires valuable content by helping people meet if they write reviews

Zynga

helps friends stay in touch if they recruit new players and retain existing ones maintain their card membership

American Express

helps professionals to meet others like them if they maintain their card membership

Ebay

allows people to strengthen friendships through gift giving if they ask friends to buy from eBay Here's how four companies have successfully implemented their social strategies. Each firm reduces costs or increases customers' willingness to pay by helping people establish or strengthen relationships if they do free work on the company's behalf.

Before piloting this option, the team checked that the activities intended to improve relationships were directly related to jobs that help the company lower costs or increase willingness to pay. That was true, for example, in the Zynga and eBay Group Gifts strategies, which allowed people to connect only if they posted status updates advertising the product. Indeed, the shop-withfriends strategy tightly aligned social and economic benefits: The social act of inviting a friend to shop is the very act that yields profits, by generating fees if the friend becomes a new card member, makes a purchase with the card, or both. Because each new customer recruited, for free, by a card member roughly halves customer-acquisition costs, the team calculated that the strategy had great economic potential. As this strategy performed the best on all three tests, the team chose it as the one to pilot.

The pilot takes off

By e-mail, XCard invited 10,000 customers in one metropolitan area to receive a pilot Facebook shop-with-friends application. Almost 45% of recipients checked out the application; half of that subgroup signed up. Signatories were required to enter their credit card number for validation and then were asked to pick a time to go shopping with friends. Subsequently, they were prompted to post a Facebook status update announcing when they would like to shop and informing others that all involved would receive additional XCard rewards for coshopping.

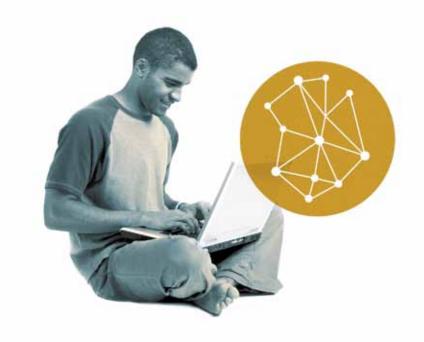
When friends clicked on the update, they were returned to the application, where they could sign up for an XCard or register their existing card and confirm their attendance. During the two month pilot, a fifth of those who had signed up posted a status update, of whom three-quarters received at least one response (some received as many as six responses). A third of those who responded became new cardholders, and 75% of invitations to shop together resulted in purchases. Pleased with the results, the CEO and CMO green lighted the social strategy for a full rollout in 2012. With changing corporate priorities and increased focus on the exclusive cards, the executive team also asked the group to pilot the executive-women strategy. Most important, the company established a permanent social-strategy unit that reports to the CMO and is tasked with developing and testing new social strategies.

As most businesses are accustomed to helping people meet their economic rather than their social needs, creating social strategies will require fundamental changes in the way companies approach strategy development. As social platforms become even more central to consumers' lives, companies that don't figure out how to appropriate their value and create true social strategies will find it harder and harder to compete with those that do. Starting this process soon, even in small steps, is both a critical defensive and offensive move.

Mikołaj Jan Piskorski, who often goes by Misiek, is an associate professor in the strategy unit at Harvard Business School. His forthcoming book is Connect: Why Social Platforms Work and How to Leverage Them for Success (Princeton University Press, 2012). Twitter: @mpiskorski







Imagination is The Only Limit

Enterprises are leveraging advanced technologies to discover unimagined ways to connect with consumers, producers and employees operating in a highly networked, hyperconnected world

- Imagine! A student living in a remote part of Australia teleconferences with a math teacher in India at a mutually convenient time to clear doubts raised by fellow 'digital natives' located in different countries, who are all preparing for their final assessment under a distance learning program offered by a US university. Technology has made it possible for these students to engage in extreme teamwork and experiential activities.
- Imagine! A specialist doctor practicing in Rio de Janeiro video conferences with a local health provider located
- in the Brazilian Amazon to accurately diagnose and treat patients in the remote location. Using advanced remote technologies, doctors are able to personalize drugs for patients living in far off places, facilitate para-medical support where needed, and even grow new cells for the heart. Telemedicine has revolutionized global healthcare delivery systems.
- Imagine! A bank with no branches or ATMs! Rapid mobile penetration in the rural areas of Asia and Africa is enabling banks to add hitherto 'unbanked people'

as customers, and deliver to them customized microfinance and micro-insurance products through the mobile. These branch-less banks are setting off a new wave of mobile banking that will eventually spread out to metros, cities and towns around the world.

Technology is omnipresent in people's lives, impacting everything from communication to entertainment and medicine to convenience. Enterprises – big and small are constantly in search of new technologies and practices that enable them to deliver high quality products and services to consumers, on time, at competitive costs. And now, as 'green growth' becomes a global movement, customers also expect enterprises to adopt green practices. All of these challenges come to the fore when organizations make their choices regarding IT infrastructure.

IT infrastructure itself is evolving rapidly. In the past, enterprises that had the wherewithal to buy advanced IT infrastructure would liberally pay and acquire those assets. But today they seek more options before deciding upon the infrastructure that should support their business. More recently, the options have increased with IT infrastructure being made available as a service by specialist vendors. Following from this, more enterprises now prefer to variabilize their IT costs by opting for IT infrastructure services instead of making huge capital investments in IT assets that are to be deployed on site.

Driving differentiation

The choice of IT infrastructure also determines how an enterprise differentiates itself in the market – in terms of cost efficiency, Go-to-Market strategy, quality of products and services and even green practices. A few examples are:

• Real-time data collection: Take the case of car insurance companies in the US and UK that now use GPS devices and sensors for real-time data collection on parameters like the speed of cars which serves as an input for claims settlement in the event of an accident. Likewise, manufacturing companies are us-

ing radio frequency identification device (RFID) tags to obtain real-time insights on how their goods move through the supply chain. This helps them reduce inventory levels and respond dynamically to market trends.

- Analytics-driven decision making: Using advanced technologies like Big Data analytics, enterprises gain key customer insights that serve as actionable inputs for developing winning products, solutions and services. For instance, pharmaceutical and healthcare firms are using a variety of patient data and analytics to develop and test drugs and to improve healthcare delivery systems.
- Wider market reach: IT infrastructure is now enabling enterprises to cater to markets across geographies without having to establish a large physical presence in all markets. Global retail majors are increasingly taking the e-commerce route to connect with consumers worldwide. This way, they need less physical space to do business, as well as assess consumer expectations and behavior more closely.
- Speed to market: Companies are leveraging new generation IT infrastructure to accelerate their speed to market. Now they can set up sales offices in rapidly growing territories quickly, to give customers strong off-site support for their initiatives, or to meet demand for services when online interactions surge. An emerging telecom player in Asia set up its entire IT system in record time using modular, scalable IT infrastructure to enter the market in the shortest possible time.
- Superior customer experience: Enterprises are using advanced technologies like mobility and social media to deliver superior customer experiences. To get the customer experience right, companies should be able to switch and route customers across different types of networks flexibly. Sports equipment retailer Giantnerd has created a unique social network called Wiki-Nerdia that encourages social buyers to share their experiences with potential customers who are researching on the company website, and also address their queries.



- Higher productivity: More employees now prefer to work in a Bring-Your-Own-Device (BYOD) environment that has a cascading beneficial impact on their productivity. Enterprises need to have the IT infrastructure that supports the BYOD culture, with sufficient bulwarks against data loss and infringement of data secrecy. New generation IT infrastructure also helps employees to work anywhere, anytime using their personal devices.
- Offshoring opportunity: Today's asset-light outsourcing transactions enable offshore suppliers to compete more efficiently for more deals.

Advanced technologies: shaping future IT infrastructure

In this era of hyper-connectivity, extreme collaboration and ubiquitous enterprises, IT infrastructure is built on four key pillars – analytics, mobility, social technology and cloud. Gartner call these the "Nexus of Forces". Or we may describe them as "The Awesome Foursome of Next-Gen Technology":

• Analytics: Enterprises that adopt analytics to leverage an exponentially increasing volume, velocity and variety of data to identify current and future market behavior would have to make the right choice of computational, storage and network elements that support the analytics function. A well-architected infrastructure is necessary to ensure the analytics applications run efficiently and economically. It should also guarantee foolproof data security.

Mobility: Ubiquitous connectivity through mobility is helping organizations do business anytime, anywhere. Gartner has predicted that by 2016, more than 1.6 billion smart mobile devices will be sold, two-thirds of the workforce will own a smartphone, and 40 percent of the workforce will be mobile. Mobile will change applications and how they are delivered. Users will increasingly expect personalized and context-award experiences and Gartner expects more than 300 billion apps will be downloaded each year.

• "The Internet of everything" will also put smart devices at the center of data collection. By the end of the decade, Gartner expects that more than 30 billion devices will be permanently connected and 150 billion will be occasionally connected. It will soon cost more not to monitor devices than to monitor them.

Social technologies: This promotes extreme collaboration between the different stakeholders, leading to greater innovations at the workplace. Social computing is transitioning from being on the outside of business to being the core of business management, changing organizations from hierarchical structures and defined teams to communities of interest.

• In three years, at least 10 organizations will spend \$1 billion or more on social media, predicts Gartner. But many of the posts will be paid or automated. Still, social data is important for understanding and reaching customers, and even employees.

Cloud technologies: Cloud stores information and ensures its ubiquity. It enables delivery of information and functionality to users and systems. Cloud-based infrastructure services are looming large.

• Cloud services like infrastructure-as-a-service (laaS) are finding a growing market but most of them are ren

dered as private cloud solutions meant for single clients. Today, there are few infrastructure service providers offering real public cloud solutions with high flexibility of changing baselines and pay-what-you-use pricing models. Nonetheless, most infrastructure providers have recognized the opportunity to offer consulting solutions to customers for their cloud-readiness and cloud integration and assessments.

• Many infrastructure providers are already offering infrastructure managed services including public cloud solutions of third parties like Amazon or Google. While IT infrastructure management and cloud solutions are still largely separate, they are converging rapidly.

Innovation & disruption

These technologies are innovative and disruptive and will increasingly combine to revolutionize business and society, disrupt old business models and create new business icons and leaders. Take the case of the retail industry. A portable device in the pocket can navigate a customer into a retail store at one moment, and redirect his / her final sale to the competition the very next moment, because of a friend's recommendation on Facebook.

Sales organizations in particular are proactively adopting these technologies to keep their salespeople perennially out in the field, talking to clients and cracking deals using presentations (information) created through collaborative platforms (social) hosted on the company's server (cloud) and accessible on individual phones or laptops.

Mobility and social technology are also helping a gamut of banking and financial services organizations to broadbase their digital services and create compelling customer experiences. Rapidly increasing number of tablets in the hands of consumers is facilitating this change. Forrester forecasts that by 2016, 106 million people in the seven major Western European countries will own a tablet, while more than 112 million people will own one in the US.

IT infrastructure - for greater future-readiness

"The Awesome Foursome of Next-Gen Technology" are here to stay. Hence, in strengthening the future-readiness of your enterprise, develop an integrated strategy to get the best out of the "Awesome Foursome". This would entail the following:

- Move beyond alignment: In selecting the right IT infrastructure for your enterprise, you would do well to look at the future needs of your business and draw a plan to embrace advance technologies such as social media, mobility, and cloud initiatives that drive positive business change.
- Standardize the core: You should look to create a standardized platform that can support open or industry accepted norms. Niche applications and services will rule in this emerging environment. Standardization will also enable convergence and consolidation.

A converged network that supports unified communications and the cloud will provide a robust platform for advanced capabilities and next-generation services.

- Embrace new consumer technology trends: Today, it is the smartphone and tab that is revolutionizing business. Tomorrow, it will be watches, shoes and goggles. Embrace these technologies, learn from them and build a more nimble and efficient IT organization. This is especially true for mobile devices and social networking tools.
- Build analytics into everything: Although analytics isn't a replacement for human thinking, it can uncover patterns and point out emerging opportunities whether derived from a traditional database, social media stream or other source. It will also help an IT organization to automate incident management, network-management and provision services based on usage data captured, analyzed.
- Rethink security: Data is increasingly device agnostic. Although it is wise to build basic security into systems and devices, the focus must be on data security throughout its entire lifecycle.

Business as usual is passé. Rather, businesses of the future will be governed by shorter cycles, greater productivity and efficiency demands, rise of new markets, hyper-networking, extreme collaborations, and ever rising customer expectations. Advanced technologies like analytics, mobility, social and cloud are constantly evolving to keep up with the emerging business demands. The enterprise technology of the future will be designed to help enterprises meet customer demands through effective, innovative, creative and imaginative ways. It is time to go back to the drawing board and imagine the future of business.

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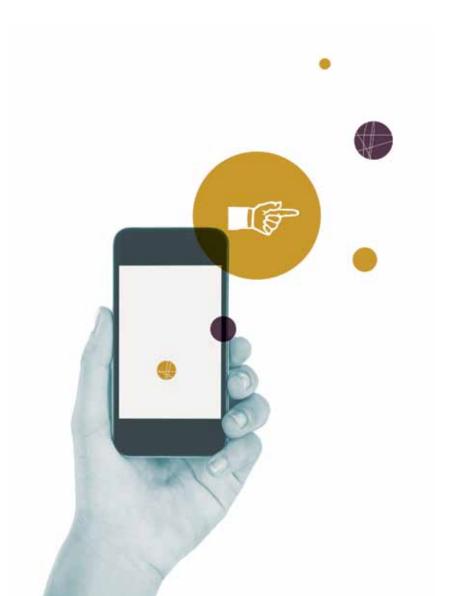
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The Data Directive: An Economist Intelligence Unit report commissioned by Wipro

Watch this video to know 300+ global CXOs' views on how data is driving corporate strategy - and what still lies ahead

Scan to play video

DIPSTICK SURVEY



Business Pulse

A dipstick survey of delegates at Davos 2013

A World Economic Forum Poll conducted by Wipro at Davos 2013, indicates that businesses will turn to Asian and other emerging economies for growth, leading to higher adoption of technology to drive business in uncertain markets. The poll was taken by some of the world's top business leaders.

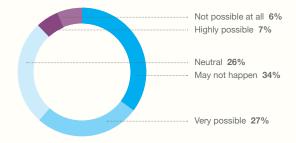
ECONOMY

The signs that large parts of the world are poised to go through economic stagflation are becoming reality. The Euro Zone presents a leading indicator of the bitter and long road to recovery ahead of us. The Euro Zone's GDP is likely to grow by an infinitesimal amount in 2013. The European Central Bank (ECB) forecasts it to be between minus 0.9% and plus 0.4%. This means Greece will remain in recession, the economies of Spain and Portugal will shrink further and France and Germany will barely grow. Does this herald a break-up of the Euro Zone, driving the region into an advanced state of depression that will impact demand and affect businesses across the world? Respondents of the Wipro World Economic Forum Poll at Davos (January 2013) were mildly optimistic that the break-up would not happen. Of the poll respondents, 34% felt the break-up may not happen and the single-currency zone would stay unified (see Q1). A small portion (37%) felt that the dominant players in the Euro Zone story were actively working towards a revival (see Q2), but the percentage looks grim with 34% thinking that not enough was being done. This could stem from the worry that the rescue plan created by the ECB together with the regulators will not find support; or that governments in the Euro Zone will fail to take the hard steps necessary towards economic reform. That sentiment of uncertainty found reflection in the poll. 27% respondents said it is "very possible" for the Euro Zone to break up (see Q1).

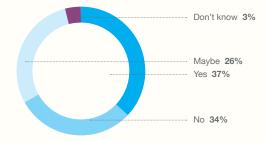
But there is a glimmer of hope. Many business leaders believe that the lowered demand from crisis-ridden Europe – and perhaps other parts of the world, including the US – will be debilitating, but not devastating. Asian economies will come to the rescue.

Our poll shows 46% respondents are betting on Asian economies to compensate in the short-term for the stagflation (another 32% said "Maybe" indicating there was a distinct possibility of Asian economies rising to boost demand – see Q3). This is contrary to studies that indicate deceleration of growth in China, a weakening in

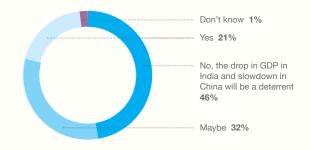
Q1. With Euro Zone countries facing high fiscal deficits & low GDPs, how likely is a Euro Zone Fallout (countries breaking away from the Euro Zone)?



Q2. Are the dominant players in Euro Zone doing enough to help revive the 15+ EU nations that are going through recession?



Q3. Can Asian economies assist in the short term to compensate for the near stagflation in the other economies?



Eastern and Western Asia and at best moderate growth in South Asia. It may seem that businesses are nevertheless depending on the purchasing power of emerging and developing economies more than they are on those of the developed world. This could indicate that global businesses will have to pay closer attention to their Asian markets than they are already doing. It could spell a demanding – or innovative – period for many: Asian markets have traditionally been difficult to understand, penetrate and dominate; they are price sensitive and driven by volumes, not margins. One predictable fall out of this will be global businesses shopping for local partners who have demonstrated success and depth of experience.

SOCIAL/ EMPLOYMENT

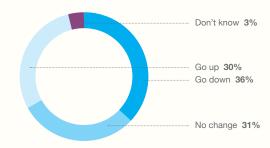
Poll respondents didn't appear to be unusually perturbed by the low growth rates forecasted for Europe (or the US and other parts of the world). If anything, they saw unemployment rates being positively impacted – 36% of the respondents said that unemployment rates would go down. This may appear unusual and remarkably optimistic, but an almost equal number (30%) said unemployment rates would go up (see Q4).

The antidote to unemployment (31% felt there would be "No change" in the unemployment rates – see Q4), it would appear, could be in bridging the skill gaps. As many as 34% of the poll respondents felt that skills to address the 3.6 million unfulfilled jobs in the US that were impacting productivity could be sourced through global partnerships (see Q5). The more important opinion to emerge was that another 44% felt that this could be a possible solution and were not willing to write it off (indicated by the 'Maybe' in their response to Q5).

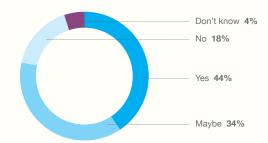
TECHNOLOGY

While solutions to global demand, talent supply and fulfilment emerge, what is the role technology can play to improve efficiencies and address new markets? How can technology make it easier for business to transition

Q4. Where do you see unemployment rates heading by 2013-14?



Q5. Do the high unemployment rates in the US and reports of around 3.6 million unfulfilled jobs point to a partnership opportunity with countries that can bridge the skills gap?



Q6. What is the single most important lever that will drive business in the next few years?

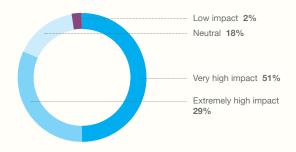


from markets they understand and have shaped over the last century to markets that are economically, culturally and demographically different and difficult to predict? As many as 35% of the poll respondents felt technological advancements would have a role to play in driving business over the next few years (see Q6). Another 32% felt that customer experience was going to be equally pivotal in keeping businesses in the running. This, of course, is true for businesses globally. However, our poll results indicate that this may need to be applied more closely to Asian markets, if businesses want continued growth.

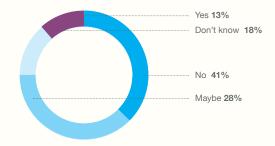
It comes as no surprise that Predictive Analytics dominates as a strategic tool (IDC expects a 10.1% compound annual growth rate in the analytics market every year until 2016). Of the respondents, 51% said that Predictive Analytics would have a "Very high impact" and another 29% said it would have an "Extremely high impact" on their decision making (see Q7). This is consistent with the fact that markets across the world are changing rapidly, market signals are becoming difficult to decipher and the windows of opportunity are shrinking. Businesses need to stay ahead of the curve in terms of understanding what their customers' need, when they need it and where they need it; how competition is altering the landscape; how regulatory changes can be leveraged to stay ahead of competition and how market dynamics impact internal organization structures.

As businesses increase their technology inputs to address uncertainty, the focus on keeping costs predictable and contained will intensify. As a consequence, amongst the technologies that will find increasing relevance will be cloud, enabling organizations to scale their IT on demand in a pay-as-you-go model, reducing upfront investments and CAPEX as well as protecting them from technological obsolescence. The excitement around cloud however could be dampened by the lack of regulations to securitize data and address privacy concerns. As many as 41% of the respondents said that regulations to do with privacy management around Cloud were not mature (see Q8). This is consistent with

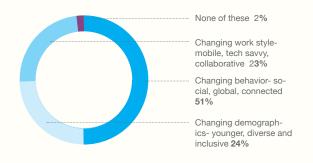
Q7. How much of an impact do you think Predictive Analytics will have on strategic decision making?



Q8. Accelerated cloud adoption is raising security concerns. Are current regulations mature enough to prevent privacy infringement?



Q9. What are the key attributes that define today's workforce?



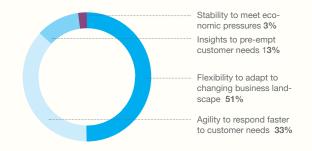
a variety of research findings, including those recently presented by the ITU quoting studies done by Pew Internet and American Life Project suggesting that regulatory compliance continues to be among the top security concerns for CIOs. This lacuna calls for urgent intervention. Technology providers must take their cue from this to ensure that their cloud platforms are secure and future-ready, going well beyond existing privacy requirements.

BUSINESS

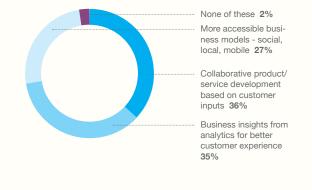
Everything is changing, from the workforce (see Q9) to the economy, society and technology. This presents a Herculean challenge before modern leaders wanting to steer their organizations to become future ready. For them, the question is: "Can we bend the business land-scape before it bends us?" The answer is to re-engineer processes and make them more adaptable. The larger response, as reflected at the Summer Davos in Asia last year, is that "Science and technology hold one of the keys to managing the complexity to maintain entirely contradictory views of reality. Leaders need minds that can accommodate these more complicated truths they now confront."

Of our poll respondents, 51% felt that businesses needed to be flexible in order to be future ready (see Q10). The need for flexibility is the outcome of uncertainty, confirmed by the 33% of respondents who felt that agility to respond faster to customer needs would define future-ready organizations. This also underlies the emerging demand for Predictive Analytics – 35% said that they were creating business insights from analytics for a better customer experience in order to differentiate their business (see Q11).■

Q10. What is that one key attribute necessary for an organization to be future ready?



Q11. What steps are you taking to differentiate your business and make it more relevant for customers?



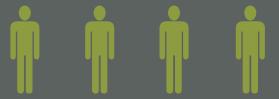
CONCLUSION

The over arching results of the poll indicate that organizations must adopt Predictive Analytics to accurately forecast rapidly changing markets and support growth. They need to urgently consider cloud technologies after due deliberation on privacy requirements, to keep costs under control so that they can remain competitive in price-sensitive Asian markets. In addition if they are to build a future-ready organization they must consciously improve their change quotient to stay flexible, agile and adaptable.

SUMMARY REPORT

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Tuesday 22nd January, 2013 Steigenberger Grandhotel Belvédère Davos www.ft-live.com/futureready



The Future-Ready Organisation

Preparing for the Big Data deluge & tomorrow's new era workforce

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In the second half of the 20th century, the world saw more change than in the millennium that preceded it; and the highway to the future is littered with companies that failed to see what was coming (Kodak is one of the most high-profile casualties in recent years). With the future happening faster than ever, a company needs resilience and strategic agility to succeed, and it will need to keep its eye firmly on the advancing horizon.

The FT Executive Dinner Forum, which took place on the eve of the World Economic Forum in Davos, on Tuesday, 22nd January, 2013, set its sights on two important changes as they come over that horizon: the increasing volumes of data that are precipitating a massive shake-up of business priorities, as well as producing, entirely new ways of doing business; and the new era workforce – a workforce that is more mobile, includes more women, is get-

ting smaller, and brings with it a very different set of expectations to the workplace.

Chaired by: Gillian Tett, Markets and Finance Editor, Financial Times

Panel: Sir Martin Sorrell, CEO, WPP TK Kurien, CEO, IT Business & Executive Director, Wipro Limited Dick Olver, Chairman, BAE Systems



Gillian Tett

Markets and Finance Commentator & Assistant Editor of the Financial Times

Gillian Tett is Markets and Finance Commentator and an Assistant Editor of the Financial Times. In her previous roles, she was US Managing Editor and oversaw global coverage of the financial markets. In March 2009, she was Journalist of the Year at the British Press Awards. In June 2009, her book Fool's Gold won Financial Book of the Year at the inaugural Spear's Book Awards. In 2007, she was awarded the Wincott prize, the premier British award for financial journalism, for her capital markets coverage. She was British Business Journalist of the Year in 2008. She joined the FT in 1993 and worked in the former Soviet Union and Europe, and in the Economics team. In 1997, she was posted to Tokyo where she became the Bureau Chief, before returning in 2003 to become Deputy Head of the Lex column.



Sir Martin Sorrell

Chief Executive, WPP

Sir Martin Sorrell founded WPP, the world's largest advertising and marketing services group in 1985 and has been chief executive throughout. WPP companies, which include some of the most eminent agencies in the business, provide clients with advertising, media investment management, consumer insight, public relations and public affairs, branding and identity, healthcare communications, direct, interactive and internet marketing, and specialist communications services. Collectively, WPP employs over 162,000 people (including associates) in over 3,000 offices in 110 countries. The Group's worldwide companies include JWT, Ogilvy & Mather Advertising, Y&R, Grey, Mindshare, MEC, MediaCom, Kantar (including Millward Brown and TNS), Wunderman, Burson-Marsteller, Hill+Knowlton Strategies, Landor, The Brand Union, G2, Fitch, The Partners and WPP Digital (including 24/7 Media). Clients include 340 of the Fortune Global 500, 64 of the NASDAQ 100 and 28 of the Fortune e-50. In 2011, WPP had revenues of \$16.1 billion and billings of \$71.7 billion.

Sir Martin actively supports the advancement of international business schools – advising Harvard, IESE, the Indian School of Business and the China Europe International Business School. He has been publicly recognised with a number of awards including the Harvard Business School Alumni Achievement Award. He received a knighthood in January 2000.

Sir Martin contributes to many important organisations and charities. In 2006, he was appointed a non executive director of Alpha Topco, the Formula 1 company. In 2008, he was appointed by The English Football Association to the Board of the bid to stage the 2018 FIFA World Cup. He is on the Executive Committee of the World Economic Forum International Business Council and a member of the Business Council in the US. He is a Trustee of the British Museum, a member of the corporate Advisory Group of the Tate Gallery, and on the International Advisory Board of The Russian Museum in St. Petersburg. In 2010, he was appointed to the Board of Directors of the Bloomberg Family Foundation. He is vice-chairman of IBLAC 2011. He is a non-executive director of Sorrell Capital. In 2011, he was appointed a member of the Advisory Board of Stanhope Capital. In 2012, he was appointed a non-executive director of Alcoa.



T.K. Kurien

CEO. IT Business & Executive Director, Wipro Limited

T K Kurien (TK) is the Chief Executive Officer of IT Business and Executive Director, Wipro Limited. TK is also a member of the Wipro Corporate Executive Council.

With over 27 years of global, diversified experience, which includes the 10 years he has been with Wipro, TK has been instrumental in building and scaling many of Wipro's businesses successfully. He has a track record for customer centricity, passion for excellence and rigor in execution. He has proven to be a transformational leader and has been instrumental in turning around the various businesses that he has spearheaded within Wipro including the BPO, Media, Telecom and Consulting businesses. TK is also credited with building global leadership for some of Wipro's business units he led across the world.

Prior to taking over the role as CEO of IT Business, in February 2011, TK was President of Wipro's recently launched Eco Energy business. In June 2008, he took on the responsibility of heading Wipro's Consulting arm, WCS WW (Wipro Consulting Services), and spear-headed its growth, establishing it as a distinct offering by Wipro. From 2004 to 2008, TK headed Wipro BPO, during which time he turned the business around to achieve market leadership, best-in-class profitability and revenue growth. He was awarded the Global BPO Industry Leader award by IQPC (International Quality & Productivity Center) in 2007 for the exceptional performance of Wipro BPO. In February 2003, he became the Chief Executive of Wipro's Healthcare & Life Sciences, the new

business segment of Wipro Ltd. Formed in April 2002 to address the market opportunities in Healthcare and Life Science IT. In his early years at Wipro, TK started the Telecom Internet Service Provider business, for which he managed to create a significant impact by accelerating revenue growth. Before joining Wipro, TK served as the Managing Director of GE X-Ray from October 1997 to January 2000 and prior to that was the CFO of GE Medical Systems (South Asia).

TK is a Chartered Accountant by qualification. He spends his spare time reading books on history and strategy.



Dick Olver

Chairman, BAE Systems

Appointed Chairman of BAE Systems plc in July 2004, Dick joined BP in 1973, with a wide variety of positions in the upstream Oil and Gas business, as well as strategy and planning, plus the following positions: Deputy Chairman of TNK-BP; Deputy Group Chief Executive of BP Plc; and Chief Executive, Exploration and Production.

He is a Chartered Engineer with a First Class Honours degree in Civil Engineering; Fellow of the Institution of Civil Engineers; Honorary Doctorate in Science from City University, London; Fellow of the Royal Academy of Engineering; Honorary Doctorate in Science from Cranfield University, Bedfordshire; and Fellow of the City and Guilds of London Institute.

Dick is a member of the Prime Minister's Business Advisory Group. He is also a UK Business Ambassador, a member of the Trilateral Commission and a member of the Global Leadership Foundation.

"...in the tie-dyed corner."

Gillian Tett, Markets and Finance Editor at the Financial Times, launched the evening's discussion with a recollection that at university, where she studied social science, the social anthropologists were a bit scared of the data geeks – "they inhabited one corner of the university, and we inhabited the other – the tie-dyed corner." The extraordinary thing, she said, is that the data explosion of the last couple of years is "creating not only more jobs for the data geeks, but for the social

anthropologists too," as companies struggle to unlock the meaning hidden in the big data they accumulate. So just how significant is this data revolution, how is it changing workforce demographics – and how should companies respond?

"it's a bit like the spaghetti at the back of the television set."

For Sir Martin Sorrrell, CEO of the communications firm, WPP, business has changed dramatically since the martini-swilling days when the company was founded 28 years ago. In response to the surge in data and the application of new technologies, the company has gone from 'Mad Men to Math Men', he guipped. Craft is still important, but increasingly, WPP's business is about the application of technology, both within WPP, and, he said, in client companies. "Traditionally we've been targeted at the CMO; today we are targeted much more at the CIO or CTO," he observed.

Because of the growing emphasis on procurement, finance and cost, companies are looking harder at unifying their numerous platforms. The role of the CIO and CTO is becoming more prominent as they have to deal with a tangled technological infrastructure, which Sir Martin describes as "a bit like the spaghetti at the back of the television set." The CMO, meanwhile, "gets to play to their heart's content at the front end. "The result is that WPP's own workforce is made up of more software engineers and greater proportion of technological scientists than ever before.

Having grown over the years primarily through acquisitions, the resulting organisational structure at WPP inevitably looks very vertical, and

getting "people to play together and to work together, leveraging all that knowledge," is, he said, one of their key challenges. And it is a major problem that they see in client companies - "This lack of coordination...in the geographical silo, the functional silo, and the ego silo," and, unfortunately, "the better the people are, the more individualistic they are, the less collaborative." He remarked on the irony that what clients want, of course, from their service providers are the best minds and the best talent, working collaboratively together. "They don't care what vertical they come from."

"more knowledge exists outside the enterprise, now, than exists within it."

T.K. Kurien, CEO of Wipro, one of the largest global IT services, business process outsourcing and product engineering companies, said that the technology already exists to solve most big data problems that a company might face. "The challenge for us," he observed, "is to understand the behavior from a customer perspective." The term he has coined for this is the 'use case'.

A characteristic of the future-ready company is, he says, "getting peo-

ple to collaborate at the edge. When Big Data and the use case meets at the edge – that's where we believe real solutions will begin to happen."

Mr Kurien echoed Sir Martin's comments that workforce demographics are changing in response to new technologies and the rise in Big Data. Wipro are, in fact, actively orchestrating these changes within its own work force. But, while mixing art and 'soft' science backgrounds with technology backgrounds will be an essential characteristic of the future workforce, it isn't an easy balance to strike. "The issue that we have is how do we keep those arts background people within the company, which is made up predominantly of engineers, and how do we help them thrive?

To help remold the workforce in a way that will make it future fit, Wipro have redefined the values and measures on which employees are promoted. The Wipro workforce now rises through the ranks based, among other things, on its ability to handle ambiguity, and on how speedily they are able to execute a new idea - and pull it if it's failing. A couple of years ago "0.10% of our folks could actually handle ambiguity well enough, as rated by their peers,' said TK Kurien. As a result, Wipro's employees are keen, these days, he said, to exhibit the behaviours that will help them grow within the organisation. "But we're not quite there yet" he admitted.

"we need to make sure that our companies have a value set and a business methodology that jives with the value sets of young people today."

Dick Olver, Chairman of BAE Systems, among the world's largest defence contractors, focused his remarks on the changes that a fu-

ture-ready organisation needs to make within its workforce. BAE has a workforce of almost 100,000 working in almost 100 countries, and over half of them, he said, "are PhDs or engineers, and the other half are mostly technologists." "To win," he said, "you need the right people, in the right place, at the right time, with the right skills, the right value sets, and the right ethics."

Technology and a new generation of employees, with a different set of expectations around how, why, where – and even when – to work, is radically changing the global work-force, he says. And companies need to stay on top of this. The baby-boomers are going to have to make way for Generation X & Y, or at the very least learn to work with them, and, if they can't they'll need to "get out of the kitchen." He also stressed the importance of diversity within the workforce; not just more women in senior roles, but being careful to nurture, acknowledge and champion the technician's creative side.

"It is important in education, as well, that we emphasize the design

aspects as well as the pure analytical and engineering aspects," he stressed, pointing out that a company like BAE Systems survives on in-

novation and speed. "We get given problems that need fixing in no time flat, that require huge innovation, design and engineering, and speed in getting them out into the field – because people are getting killed. That's the sort of organisation that one really needs."

ORGANISERS

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