

Full Steam Ahead

Technology advances are set to change the way we communicate forever. And managers need to keep pace, or miss out. *Sue Weeks* charts the latest technology trends and their likely impact on the world of work.

Would flopping in front of the TV have quite the same appeal if it was the same screen where you'd put together your last presentation for the board? Conversely, would Monday's update with the boss fill you with the same dread if you were meeting him from the comfort of your own living room? These topsie turvy scenarios may sound like something straight out of sci-fi but with home and office technology converging fast they are just two of umpteen paradigm shifts that we will have to get our heads around if high-speed digital communications fulfill even a fraction of their potential.

Back in 1995 Nicholas Negroponte, founding chairman of the Massachusetts Institute of Technology (MIT) Media Lab, proclaimed that while the information superhighway is "mostly hype today", it is an "understatement of tomorrow". "It will exist beyond people's wildest predictions," predicted the multimedia guru in his book *Being Digital*.

Only the chanciest of futurologists would put a date on when "tomorrow" might dawn, but developments this year are bringing it ever closer. Ready or not, we are careering towards a time when the information we need won't be so much as a click away as putting our hand to greet us. BT futurologist Graham Whitehead calls it the "aorta" world (the "always on, real time access" world). "The network is there all of the time, he explains. "It's on all of the time and information is being passed around it all of the time."

While it is easy to get carried away with the idea of such pervasive connectivity and the promise it holds, managers and business leaders must be realistic about its application. It's vital we ensure technology makes employees work smarter not harder, and that our information exchanges are richer, not poorer, as a result.

Until firms experience new technologies, it's hard to predict their full potential. But changes to the way people and organizations communicate are already having far-reaching effects. And these will accelerate further as we move from an era of individual applications designed to solve a specific task, to one with a communications infrastructure underpinning almost everything we do.

The lines between work and home have been blurring for several years with the availability of broadband Internet connections and virtual private networks (VPNs) allowing more and more people to create virtual offices at home. This has neatly coincided with a fundamental

shift in thinking about work as something you do rather than somewhere you go, and the consequent growth in flexible working.

REMOTE CONTROLS

The challenges for managers are considerable: how do we motivate and manage remote teams? And how do we ensure productivity and performance? As Nick Isles, director of the Work Foundation, suggests, putting the emphasis on output rather than time spent at work is one way, but he admits this has inherent problems. "The influence of technology and the delayering that has taken place in many organisations means there are less people to do increased levels of work: he says. "Focusing on output can lead to stress: With the UK's long hours culture, the last thing we need is to foster a form of virtual presenteeism. As Nick explains: "If flexible working is to succeed, one of the tasks is to learn how to trust employees to manage their own output."

Managers have little choice but to rise to these challenges because the convergence is only going to grow. Increasingly, we are using the same technology for work as we do for home and leisure, whether it be an MP3 player that lets you access bitesize learning programmes as well as your favorite tunes or a media centre PC where you store files from work as well as watching on-demand movies. Even networking, that blackest of IT arts, is likely to become plug and play with Graham Whitehead looking ahead to a future when hub devices will allow you to plug in satellite, cable, broadband, DVD and whatever other channels and boom, they'll be instantly networked. "Networks will just happen," he says.

And nothing is sacred according to Ian Pearson, fellow BT futurologist, who confidently adds TV into the mix. "The launch of high definition television (HDTV) later this year will lead to a strong convergence between computers and the TV," he predicts. "Home workers will be checking their e-mail on the TV and increasingly it could be used for distributing corporate video and as a communications tool by top management."

Pearson also sees the TV as bringing to life a real virtual office annex. "Forty-two inch is pretty damn big and it means the TV could be used almost as a life-sized feed from an office web cam," he says, predicting that by 2010 most homes will have access to HDTV. "In some ways web conferencing hasn't taken off as it might and I don't think it works when you are looking at people only two inches big. With high-speed comms, a high definition display and better web cams, it will be more feasible to do more casual conferencing -if you decide you want to talk to Steve, you could click on a button and there he is.

"People want to see other people and it will allow individuals to work flexibly without the psychological problems of having no physical contact. We're not really there yet but it's reasonable conjecture."

There might be a tendency for organisations to take some of these more consumer-targeted technologies less seriously. But they will find it impossible to ignore what looks set to become the biggest facilitator of this home / work integration: BT's 21st Century Network. 21CN is an Internetworking Protocol (IP) telephony network that can carry both voice and data services. Following successful trials, its proper roll-out will begin in the second half of this year in Cardiff where 350,000 customers will migrate to the service.

THE FUTURE.S BRIGHT

BT says it is too early to talk about products surrounding 21CN but it is likely to spawn a raft of applications with clear benefits to both business and consumers. A key one is the ability to boost the power of a broadband connection temporarily. So, if an employee needed to access streaming video of a CEO's keynote speech or as part of an e-learning course, they could do so at the click on a button. It will also allow businesses to swap between text and voice services on the same call - you could be explaining your latest idea to your boss one minute and sending him a text file of your proposal the next. Similarly, you could share data on your computer with colleagues while you are talking to them.

VoIP (voice over internet) and data sharing may not be new but it is the scale and seamlessness on which they will be possible that is so significant - by the end of 2007 BT aims to have virtual private network services in more than 160 countries supporting voice, video and data. And even if we can't really appreciate what 21CN will be offering us in five or ten years' time, it's essential to understand its potential liberating effects.

"Humans will not have to dial numbers in order to create that continuous copper link to be able to pass information," explains Graham Whitehead. "There is no longer a physical link and suddenly the constrictions that used to be there - like you had to drive from your home to the office because the office is on the company local area network (LAN) -start disappearing."

Like it or not, we are well down the road towards a new workplace model. And if managers are to succeed in this brave new world, they will have to learn to assess productivity and performance on output. This, says Isles, means cluing up on the hi-tech processes. "We must have more IT - enabled managers who understand how to use technology efficiently: he says. "Because the US is less hierarchical and a bit younger, they are ahead of us on this."

But we do have some home grown IT -savvy managers. Not surprisingly, they tend to come from companies that sell technology and who have more of a technical culture embedded in the workforce.

Tony Heyworth, director of marketing for EMEA, Polycom, which develops and sells a range of voice, video and data integration kit, uses a raft of hi-tech tools to manage his remote team

-from instant messaging to one-to-one video. Every Monday, he manages to hold his weekly meeting with staff often spread across four or five locations (typically spanning Slough, Paris, Munich, Madrid and Milan).

“The meeting is rarely cancelled and even if I’m caught on the move, I can join on a hands-free mobile and then transfer to video via my laptop once I arrive at a destination,” he says.

His advice to managers in a similar position? “Don’t have long infrequent meetings. Have regular, short and spontaneous discussions,” he recommends. “Get two or three team members together for a 10-minute brainstorm right now. Don’t wait until next week when you will be flying over. A manager must see the need to bring a team together as the individuals won’t necessarily.”

According to a Harvard Business Review study, a whopping two thirds of business teams include people from at least three time zones. With less than four percent ever meeting with all their fellow team members face to face, the latest generation of remote communications technology promises much-needed accessibility through natural virtual interactions.

“Video-conferencing has changed beyond all recognition from the days when you had to book a room. It’s much more on-demand and ad hoc,” he says. “If you have an issue and need to resolve it, you can do so in real time. You can reach a decision much more quickly if you can pick up on visual clues.”

Heyworth estimates that around 99% of Polycom’s 1,636 employees use some form of video conferencing technology at least once a week and a significant number of those (sales and marketing, HR and finance managers) with cross-regional and cross- departmental responsibilities use it two or three times a day.

It isn’t all about work meetings though. BT’s Graham Whitehead stresses that it is also important to use such interactive technology to include remote workers in the more social aspects of work. “In a trial we conducted, we ensured they had a video link to their supervisor, chatlines and message boards where they could leave notes,” he says. “Companies have to start addressing issues like this.”

HI-TECH HI-TRUST TEAMS

To extract maximum value from communications technology; managers first have to foster a culture of trust.

“At Cisco, all employees are in complete control of their own time: says Ian Sherring, the company’s market manager for IP Communications. “We’re trusted to do the job and are empowered to work flexibly: he says. “We all have a laptop, video camera, softphones, voicemail access and access to the same directory that we would have in the office.”

Virtual teams are also encouraged and ad hoc web or audio conferences are an integral part of the culture.

It makes sense to take a cautious approach to new technology and avoid a headlong adoption of any piece of hardware or software that comes your way. But there is a lot to be said for letting technology into your life and seeing what it can do. With text messaging, it wasn't until everybody starting doing it that we knew how people would use it, says Ian Pearson. "People need time to discover what it will do; it evolves over time and will depend on triggers in their lifestyles or what their colleagues are doing with it."

So the message for managers is to strike a careful balance between considered implementation and experimentation of new technologies, since you never know what surprises are going to come up. "What you can do with absolute certainty is tell people what technology platforms are capable of: says Pearson. "But what you can't predict is how they will use it."

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