



THE HUMAN CLOUD



Our jobs are set to change irrevocably as flexible working and disruptive technology take hold. And that's just the start. **Colin Brown** investigates what's coming next

Amythic new species has invaded the workplace, wreaking havoc in boardrooms and striking terror across IT departments. Dubbed 'the millennials', these are the self-assured creatures who were born after 1980 with the internet hard-wired into their psyches. Allergic to boredom, these multi-taskers seek out flexibility in their schedules and a balanced life away from the office. For them, informal communication with their peers is a habitual necessity. They are the anointed spearhead of the 'consumerisation of IT', that much-discussed phenomenon which has seen all manner of bring-your-own mobile devices and rogue applications infect the corporate arena in viral ways – often without the approval of security-obsessed managers.

In reality, however, fluid work practices and disruptive technologies are being adopted, even demanded, by workers of all ages. It turns out that there is no cross-generational divide to cross, merely differences in mindset between organisations when it comes to defining business boundaries and using social tools to enhance performance. "The millennial argument is BS for the most part," agrees Sameer Patel, a managing partner at San Francisco-based collaboration consultancy, The Sovos Group. "The notion that boomers and other older generations need to be cradled and their hands held through this change is not something I believe."

Global research findings back up Patel's assertion.

In its latest quarterly *Mobile Workforce Report*, broadband provider iPass found that the median age of the itinerant, constantly connected worker is actually 46. "This tech chasm is more like a crack in the pavement," concludes iPass. "Overall mobile-worker preferences and behavioral characteristics across all age groups were similar – apart from the younger generation's loss of mobile devices in the back of late-night taxis or, dare we say it, in bars."

If anything, older workers are the ones leading the charge into web-based crowdsourcing, free-floating office spaces and virtual teamwork. A new Forrester study commissioned by Citrix Online asked information workers of all ages in the US, the UK, France, Germany and Australia about their business communication habits. The results show that millennials are considerably less likely to share work-related information via text messages or use video conferencing, web chat and social-networking tools in the workplace than those aged 55 and over. And these same 'boomers' increased their business use of social media by as much as 79% in the past year.

Citrix Online president Brett Caine says some of these counter-intuitive findings may be due to older generations ▶



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Sameer Patel,
managing partner, The Sovos Group

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The more people work at home, the more they demand Ikea-style minimalism in the office

using the tools more for work than leisure and having the stature and time to use them more freely. But whatever the reasons, the potential benefits of this sea change are enormous.

Extreme expressions of this so-called workshifting revolution are 'just-in-time' companies that scale up and down at will, hiring workers on demand and plucking project-specific applications out of the air. Even now GigaOM Pro analyst JP Finnell points to a flurry of "high-impact collaboration tools" that have arisen from the convergence of cloud computing, social software and the ubiquity of mobile technology, as well as a new generation of empowered employees and partners working inside and outside the corporate firewall in "the human cloud". If all those who could work away from the office spent even half their time doing so, Telework Research Network predicts that businesses would save more than \$400bn (€300bn) a year in increased output, lower office costs, reduced absenteeism and lower staff turnover. And that's just in the US, where an estimated 40% of all jobs today could be done at home.

In fact, companies may have little choice but to embrace the concept of the contingent workplace if they are to attract and retain the best talent. Data released in Cisco's new *Connected World* report suggests that fully two-thirds of workers would prefer the option of flexible working to a higher salary. And the more

they work at home, with all those consumer-friendly apps, the more they demand the same Ikea-like minimalism in the office. "What's happening is the next generation of users have grown up on these tools, they've grown up in the cloud and they aren't likely to tolerate a bad experience," says Bradley Horowitz, vice president of product management at Google.

Add in the environmental benefits of less air travel and a reduced carbon dioxide footprint from relying on lightweight cloud-fed terminals – as opposed to an arsenal of heavy-duty desktops and data-storage servers that are some of the biggest consumers of energy – and the surprise is quite how slowly this human cloud is gathering. For all the long-term returns on investment, productivity remains too nebulous a concept.

Speaking at GigaOM's seminal Net:Work conference in December, David Coleman, the managing director at Collaborative Strategies, said: "I was talking to a big client recently and what surprised me was not the extent of their external collaborations with customers and suppliers, but how much their internal collaboration process was in disarray. There was no strategy to it, no coordination and in some cases, not very much communication."

There are 2,000 vendors to choose from when it comes to collaboration tools, and yet small and medium-sized businesses in particular are wary of jumping in without tangible evidence of their usefulness. Cloud-based IT is demonstrably cheaper than relying on packaged bundles of software that come bloated with superfluous features and then require expensive upgrades, not to mention constant in-house maintenance. But only 7% of companies, says IDC, currently entrust their data and software



"Users who've grown up in the cloud aren't likely to tolerate a bad experience"

Bradley Horowitz, vice president of product management, Google

needs to third-party cloud platforms such as those provided by Google or Salesforce.com. Paranoia over compliance issues and information leaks means such innovations still have all the radioactive appeal of a mushroom cloud.

As the following pages will show, there are several reasons preventing more companies from making cost-efficient use of distributed workforces, collaboration tools and on-demand software-as-a-service (SaaS) applications. The revolutionary practices starting to percolate among forward-thinking businesses will not gain widespread acceptance until basic managerial issues are addressed. Trust, transparency and talent – rather than technology – are the critical concerns in a cloud-based world. It all boils down to people and how they can be connected in meaningful ways that mimic real-life interactions and behavioural motivation. Although self-evident now in the Facebook era, this social element was somehow overlooked in previous attempts to unleash corporate potential. As was simplicity itself. Portal-style intranets, extranets and in-house search engines simply lacked an addictive human dimension and with it any chance of gaining traction.

“We have finally started to really integrate people,” Patel told Net:Work. “People are the best filters. They know what the best content is and where to find the best data. They are the glue. Our entire knowledge economy is based on something that has existed in society for generations and now we’ve brought it to work. What shocks me is that it took this long.”

COLLABORATION STATIONS

As one of the acknowledged rising stars of global outsourcing, Nagarro is emblematic of the 21st-century service provider and all the associated problems of working across multiple time zones and innumerable software platforms. Headquartered in Silicon Valley, but with much of its coding and engineering horsepower emanating out of Gurgaon, just south of Delhi, Nagarro tackles intricate software projects for companies of all sizes and skillsets in the US and Europe. To add to the complexity, these clients span several specialised industries including pharmaceuticals, manufacturing and finance.

Nagarro’s trick to making this all hum is picking the right time for globe-spanning conference calls – 9am in New York is one of its favourites – and adapting itself as much as possible to the clients’ existing systems for collaborating. It also throws in its own web-based projects management dashboard, known as Projistics, free of charge.

“There is still a big learning curve. We find that many people are not used to sharing their documents,” says Nagarro president Vishal Gauri. “We try to pick tools that customers already have. Often times, we also recommend others such as Microsoft’s SharePoint. In some cases, for large projects involving big teams, we will share the cost of installing high-end video-conferencing equipment. Face-to-face dialogue makes a big difference.”

Most initial knowledge-sharing software and free collaboration tools were derived from popular



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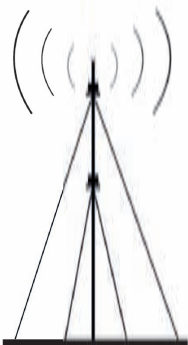
Tom Pate,
executive director, Accenture

consumer metaphors, be it Wikis, Facebook pages or Twitter microblogs. Now technologists are looking at applying business-driven human-centric design principles in an effort to make the technology more invisible and tools more directly relevant to a fired-up workplace. The guiding principle is making sure employees don’t abandon them in the face of information overload and return to their old work ways and comfort zones.

Various solutions have emerged to avoid such worker revolts. With email so often cited as the key time-wasting culprit, Google has just introduced a priority inbox for Gmail with the aim of reducing workplace noise through filters that anticipate what users want. Xobni performs similar wonders on Outlook; it is also one of several applications that work seamlessly with the online workspaces created by UK-based Huddle as more and more software start-ups realise the virtues of open standards and interoperability. No employee wants the hassle of learning another set of operating protocols, far less deal with anything but the most intuitive interface. Dave Hersh, chairman of social business software company Jive, goes so far as to suggest companies include a chief experience officer.

“We need people who can protect against feature creep and preserve the user experience.”

Design firm IDEO teamed up social enterprise company Moxie Software to create a knowledge-sharing network called Spaces. The customisable platform is designed to mould around existing workflow systems and legacy data sources rather than impose another alien process upon them. Like so many social games and location-based apps, Spaces rewards participation – a social-engagement tactic that has proven effective in converting workers to rival collaborative platforms as well. Spaces is also based around “rich profiles” of users in the belief that knowledge exchange comes from shared connections rather than shared pools of data. “These enterprises want to know how they can truly connect people around the world,” explains Moxie CEO Tom Kelly. “At one very large company that we are dealing with



Staff at design firm IDEO in London using the knowledge-sharing Spaces network

right now, a very insightful person said: 'I want a product that will make us small again. So I know who's doing what across the room like I did when we started.'

THE NETWORKED WORKER

Companies that rely on elastic workforces tend to enthuse about the increased levels of motivation and productivity. Surveying their 2.5 million users, iPass found that mobile employees work as much as 240 extra hours per year compared with their office-based peers. Only 6% of them disconnect from work while on holiday. "It is noticeable how passionate people are when they work on their own terms," says Maynard Webb, CEO of virtual call-centre company LiveOps. "Our contractors are often more connected and happy than the people who are in the corporate office."

Yet even evangelists like Webb talk about the urgent need to improve the feeling of trust between companies and their remote staff. Bound to management tradition, employers continue to be overly paternalistic, monitoring their invisible teams as opposed to fostering better communication with them. Deprived of regular visual contact and other bonding mechanisms, workers often find it difficult to buy into their paymasters' decision making, let alone contribute their own ideas for improvement. The same can also be said for in-house staff, particularly as companies grow in size.

Among those determined to rejuvenate that relationship is Marc Benioff, chief of Salesforce.com, the cloud-computing

juggernaut that boasts its own enterprise networking product known as Chatter. Realizing that his business is propelled by employees at all levels of the operation, Benioff has set about obliterating his internal hierarchies and even compensating staff based in part on contributions to, and measurable influence on, Chatter.

"It's about values and the number-one value is trust," he told Net:Work. "If there is no trust between employees and managers, nothing is going to work. Transparency builds trust. To get trust alignments, you have to have massive communication, you have to open up everything."

Applying that philosophy to what would normally have been a closed-door off-site three-day meeting of 250 executives, he distributed iPads to everyone in the room and encouraged all to comment in real-time. He also solicited input from right across his 4,000-strong workforce. As Benioff observes, such empowerment initiatives can yield unexpected changes: "Your own business starts tweeting you." ▶



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Marc Benioff, chairman and CEO, Salesforce.com

LiveOps runs a virtual call-centre business from offices in Santa Clara, California





Nagarro president Vishal Gauri needs 2,000 new staff in the next three years

Cisco, the company behind those expensive TelePresence systems, says it has seen savings of close to \$1bn (€750m) in the past three years from its own internal use of the high-end video-conferencing system. Three-quarters of that is attributable to reductions in travel expenses, the rest in improved productivity. And nothing spreads adoption of new workflow practices quite like financial results. Says Cisco's chief information officer, Rebecca Jacoby: "If you can make a concrete example of how collaboration brought value in one specific area of your business, you will be amazed at how easy it is to sell to rest of the company."

SEARCH FOR A STAR

In this elastic new world of business, it's not uncommon to see both Google and Goldman Sachs chase after the same talent. So competitive has the hunt for the next generation of business stars become that Nagarro, on the prowl for 2,000 new workers over the next three years, feels compelled not only to tap into India's famed coaching institutes but to start nurturing budding computer-

science and engineering standouts from high schools in northern India. Once recruited, every effort is made to keep them. Among the innovations, says Nagarro's Gauri, is a web-based 'issue tracker', an HR help system that seeks to resolve work problems well before they have time to fester. It's cited as a key factor in keeping Nagarro's attrition rates at an impressive 5%.

But what exactly is everyone looking for in terms of skillsets? "Learning agility," says Al Delattre, global market managing director for technology at headhunting giants Korn/Ferry International. And for that, past performance is no longer a helpful indicator. "The leaders of the future are probably no longer the people who got the rotation through finance, engineering and sales or had the highest grades in business school. They're going to be the people most able to quickly recognise, adapt to, exploit and execute against these new waves of technology. The leaders of tomorrow are going to be those who adapt and learn."

A similar observation was made at Net:Work by John Seely Brown of Deloitte's Center for the Edge. "Our skills don't last more than five years. And yet we use the eyeglasses of yesterday to make sense of what's happening today. In fact one might argue that even using the term 'skills' is a 20th-century notion. Because if basically the half-life of skills is shrinking and shrinking, then what may matter more than ever is disposition."

If true, game-addicted millennials may hold the keys after all, but in ways they never expected. The two critical dispositions "for thriving on the future's edge", claims Seely Brown, are the same ones required to be successful in the game world: inclinations for questing and for connecting. "Those dispositions will always be in play. It is not a skill but a point of view. In the game world, if it ain't changing, I'm outta there. If I ain't learning, I'm out." ■

THE REMOTE MANAGER

Agility is not just a watchword for companies these days. It's the new mantra for software development and web-design projects. In contrast to the classically linear approach of the past, where projects were mapped out, executed and tested in a laboriously sequential approach, 'agile development' puts all the emphasis on constant collaboration and on-the-fly changes. The end result is typically cheaper, faster and more responsive to market shifts, with incremental versions of working software delivered on a frequent rotation. But making this iterative method work is no easy matter. The evolutionary approach depends heavily on face-to-face conversations rather than elaborate documentation, not to mention an effective managerial framework. No wonder video conferencing has become a new necessity in a corporate world increasingly dictated by software projects.

More and more workers are using their computers for quick Skype-style exchanges, particularly if visual chat applications come ready-baked into their email or project-management systems. A growing few are also booking time in video-conferencing suites for virtual meetings conducted in high definition, a luxury that is becoming more and more affordable by the month.

"When I need to see the sweat on someone's brow I will use TelePresence. But other times I just need to know to see that someone is paying attention," says Tom Pate, an executive director at Accenture, the management-consultancy giant. Pate reckons his company-wide commitment to such collaboration tools has been a critical factor in doubling sales over the past decade even as back-office operation costs were slashed in half as a result of cuts.

