We are currently experiencing a collision between digital technology and human nature. It brings opportunities and challenges to balance. We need places - particularly for working - that make the most of both our new digital networks and our unique human capacities. In a virtual age, physical places (and their designers) should remind us to be people.

Technology creates an inherent paradox throughout society. Nowhere is this more evident than in the workplaces of organizations.

We have shifted “from a world structured by boundaries and enclosures to a world increasingly dominated, at every scale, by connections, networks, and flows. This is a world of less rigid, more fluid and flexible relationships.”

This advancement brings exponential new capabilities, but digital networks are not an achievement in themselves. As John Naisbitt is quoted in Frederic Laloux's outstanding book Reinventing Organizations, “The most exciting breakthroughs of the twenty-first century will not occur because of technology, but because of our expanding concept of what it means to be human.”

Laloux is grappling with what our new capabilities will mean for how we organize ourselves. Today, the design of places must deeply consider what our virtual extensions will mean for how we choose to behave in the physical world.

The paradox of technology is experienced across a range of issues. It is visible in the extreme simultaneous expansion and contraction of the world, whereby we can broadcast intimate personal details to global subscribers, while also watching international geopolitical events in real-time video - all from our pillow.

These new relationships offer possibility but also danger. There are opportunities to contribute and exploit, but also an increased risk of laziness, destructiveness and wastefulness.

Our new-found capacities can undermine our capabilities. For example, you can connect with anyone via Twitter, but increasingly filter your settings to see only those tweets with viewpoints similar to your own. You can use Google Translate to “speak” every language, which means you never need to actually understand a language other than your own. You can get yourself anywhere with a GPS, and so never need to know your way around.

We are in a critical battle of information versus insight, access versus focus, and aggregation versus independence. It’s quantity versus quality.
Some fields demonstrate the problem more than others. Consider the effect in media. The most prolific are not the most useful. Social media has increased our available “channels,” but also revealed the importance of insight, critique and opinion. The limit of one hundred and forty characters for a tweet has exposed the need for expression of original thought via “old” long-form models, such as The Saturday Paper and The Conversation.

Travel statistics also reveal the paradox. Communication technology has not reduced our need to travel. As our network of connections expands, so does the travel required to maintain and navigate that network, especially for key moments and events. Domestic and international travel is increasing exponentially, just as data downloads are.

In music, the collision has affected not only the commercial model via iTunes and Spotify, but also the creation of music itself. As outspoken (and highly qualified) digital commentator Jaron Lanier writes, software designed to create music inadvertently built “locked-in” formats that have constrained what music was possible. The notion of music became limited by technology, as simulation and sampling overtook original performance.

Frighteningly, the same is happening to relationships. Facebook has done to being “friends” what musical instrument digital interface software did to music, or what Twitter has done to the idea of being informed. It has been reduced and cheapened to a momentary “click.”

There is a sense of inevitability about the reduced humanization of technology. Apple co-founder Steve Wozniak has described the future of personal technology as having your best friend in your pocket - not a gadget, but a companion. This is seen in Spike Jonze’s movie Her (2013), where digital software technology takes on a human form (Scarlett Johansson, no less). Despite her realness, there is a prevailing sense of loneliness and limitation to the relationship. And while even a digital version of sex is apparently possible, it is presumably a disappointment compared with the old analog version. Possibility and dissatisfaction often seem to go together in our digital age.

With that comes the opportunity to redesign the work itself - if we agree to engage in the digital realm. There is a price to pay and a responsibility to take - and so far, we do.

Designing offices can seem like an imperative to design physical places for largely digital pursuits. We have all spent days when we have worked with people and yet not had a conversation. Sometimes this can be highly productive and for some people this is the norm.

So how can we design places that maximize digital opportunities, while also reminding us of the uniquely human aspects of effective work - empathy, understanding, synthesis, judgement, creativity, relationships, learning, shared success (and failure) and belonging?

What are the new roles of workplace design in this digital age?
Today’s organizations are highly dynamic. In the digital age, physical places can provide more flexible and adaptable platforms for change amid uncertainty. This is critical to enabling the speed and emergent nature of digital business. Massachusetts Institute of Technology Professor William Mitchell described this back in 2003. “It isn’t that such complex, feedback-rich, self organizing systems don’t have identifiable units and hierarchies. In fact, they usually do. But their units and hierarchies emerge from the dynamics of interaction; they are not predefined.”

Mitchell accurately foreshadowed the implications for design. As connection has moved from tangible, point-to-point wires to wireless nodes, it has become about being “within range” and so networks (and the spaces that accommodate them) are more fluid and amorphous. Arrangements are “less like rigid things...like buildings or cities, and more like the camps of nomads - ready to move around and reconfigure, at a moment’s notice, as required.” Space must not just be designed for change, it must be designed to change. This is what makes the reconfigurability of university student spaces relevant reference points for workplace design.

Technology allows remote workers to be present in the office and office workers to be far afield. Cloud computing, common platforms, web-chat applications, video links, drone technology and always-on “wormholes” connect people irrespective of place. Previously remote workers (such as field staff) can be more present. Previously offshore support functions (such as call centres) can be virtualized to the kitchens and bedrooms of home workers. This opens access to a wider talent pool and more diverse workforce for employers, which improves problem solving through diversity. Incorporating functionality for these digitally connected workforces is critical; so is creating places where distributed teams come together to build trust. Good workplaces help employees get to know each other.

Today anyone can contact you with a once-in-a-lifetime opportunity at any moment. In exchange, they can also bring meaningless distractions. Unfortunately distractions outweigh breakthrough opportunities. A key new role for workplace design is to help people manage their availability using physical spaces. You can use spaces to choose to be seen or unseen to suit your circumstances, and to help effectively utilize your expanded digital self. You can use technology to allow you to optimize your physical location to be productive.

Valuable collaborative communication has become so constant and interspersed with other activities - thinking, writing and focusing - that collaboration and concentration have lost their distinction. Both ends of the spectrum are casualties. To help, workspaces must better allow for both communication and concentration, and for the simple and intuitive movement between the two. In this sense, good workplace design can help respond to digital overload and allow greater privacy and concentration by providing better shared spaces for focused work, such as enclosed quiet rooms or quiet-work library-type spaces. Mobile technology allows the use of a more diverse choice of places under an on-demand or “free range” approach to using the workplace (also known as activity-based working).

These places provide many different spatial settings (twenty-six different settings on the typical work floors in the case of the recent HASSELL designed project for Medibank - see Architecture Australia Vol 104 no 4, Jul/ Aug 2015, p. 80) and create a much richer series of spaces to support individual choice and control over how and where people undertake tasks.
Physical places can now be layered with digital information to help people engage with and make sense of data. Real-time analysis, systems integration and "gamification" of performance information are all now accessible in our devices. Physical places can use integrated and interactive digital displays to draw information out to the surface, make it engaging and highlight key aspects for people who would not otherwise go looking for it. A new role of workplaces is to create experiences that engage us with our digital capacities - to make information part of our intuitive navigation and to make it meaningful.

The digital workplace will also evolve to augment self-management. Very soon, our technology, via apps on our phone or tablet, will extend through to the building and the organization to do more than digitally book a meeting room. It will synthesize our digital information to automatically advise our connections of our movements, sync our psychological health indicator scores with the HR database, highlight our own performance data in the lift on our way to the team, and book a personal training session after work in response to our diet information, workload and available times in our diary.

This is the evolution of today’s building concierge websites. In this context, Mitchell describes the temptation to conceive of ourselves as technological beings. “I am not Vitruvian man, enclosed within a single perfect circle, looking out at the world ... Nor am I ... an autonomous, self-sufficient, biologically embodied subject encountering, objectifying and responding to my immediate environment. I construct, and I am constructed, in a mutually recursive process that continually engages my fluid, permeable boundaries and my endlessly ramifying networks. I am a spatially extended cyborg.”

Perhaps most importantly, physical places remain a powerful expression of identity and belonging. Because technology allows work to happen anywhere, there’s a renewed focus on the ideas of purpose, belonging and meaning in that work. All these ideas can be reinforced through place. Organizational culture expert Carolyn Taylor captures this in her work called Walking the Talk, where she describes workplace design as a pervasive communication channel for the systems, symbols and behaviours - the culture - of an organization.

Shared places reinforce communities of shared values and pursuits. As more work is sourced via fast, self-organizing, constantly changing freelance networks, the shared "home" of the office may soon be one of the only remaining value propositions for belonging to a traditional organization. This is the workplace as an experience, or a service, as seen in the rise of member-based co-working communities. The validity of this model is reflected in the rapid expansions and valuations of disruptive providers such as WeWork, which was recently valued at as much as US$5 billion.

The flipside to our technological empowerment is the focus it places on human qualities of empathy, judgement, synthesis and decision-making.

While technology provides the capacity for ubiquitous and autonomous working, it also emphasizes the quality of leadership required to deal with the mobile workforce it has created. If we respond successfully, this may be the greatest of all benefits of digital technology - forcing us to evolve our human leadership capabilities.
The future of great workplaces will be found in the increasing separation of two ends of the automation and human spectrum. Recent research by the Committee for Economic Development of Australia nominated 40 percent of current jobs that won’t exist in fifteen years. So which ones will remain? Which leaders will survive? Which organizations?

One version of the future—more utopia than dystopia—is that as the extent of potential automation increases, so does the value of unique human insight. The greater the dislocation of people and places, the greater is the value of collective human experience.

The designers creating the physical reality in which this digital future will unfold are responsible for ensuring we find both utopia and dystopia. As Lanier puts it, “the story of our times is that humanity is deciding how to be as our technological abilities increase. When will we grow proud enough to be a match for our inventions? ... In order to make tech into something that empowers people, people have to be willing to act as if we can handle being powerful.”

In the world (and the workplace) where we can have anything we want, how will we decide what we need? When we can do anything we want, whenever we want, how will we decide what we will do? The most valuable role of workplace design will be creating experiences that help answer these questions. And in spite of the myriad technological advances, workplaces in the digital age will continue to be about people.

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Medibank has twenty-six different settings on the typical work floors. Photography: Earl Carter

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