PROJECT SPECIAL REPORT

PROJECTING THE FUTURE

Technology is transforming working practices, compelling stakeholders to refine and clarify their relationships. Matt Packer explores how project managers can thrive in this new era

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As a function and business model, project management is growing at an exponential rate. Objectives are becoming more and more ambitious, forcing solutions to aim higher than ever. Stakeholder involvement on any large project is now a sprawling map of roles and responsibilities, often typified by crossovers and blurring. And a surge of powerful, new technologies is infusing the sector with both opportunities and challenges – promising greater efficiencies once they are in place, yet requiring firms to exercise discernment to ensure they adopt the right tools in the right ways, and for the right reasons.

Rob Leslie-Carter, director at global project management consultancy Arup, tells *Project*: "We have seen budgets increase significantly, and parliamentary acts are being used more often to stimulate project development. Some of those schemes have even become programmes in their own right – and that level of complexity requires us to view projects as systems, with numerous interconnected assets. Against that backdrop, it is now common for projects to have several national organisations as sponsors, and for other entities to be appointed as integrators to progress development and delivery."

The risks that could stem from a lengthy roll call of stakeholders have evidently triggered soul-searching at key national bodies with interests in the project management profession. For example, the Canadian Construction Association (CCA) announced in April that it will publish a best-practice guide for stakeholder coordination during projects, helping contractors ensure that roles are clearly defined at the outset, rather than being allowed to blur. The guide – which the CCA hopes will be shared and adopted across Canada's project management community – is set to include a RACI matrix (responsible, accountable, consulted and informed) outlining exactly what is expected of each core participant.

But it will take more than the blanket reassurance of best-practice guides to keep project managers focused on good habits. It will also require input from industry partners who are sensitive to the challenges project managers face. As a developer of bespoke project and enterprise resource management software, Deltek has built up an extensive track record of working alongside project managers on the finer detail of their endeavours. Fergus Gilmore, VP and managing director UK and Central Europe at Deltek, says: "As working practices evolve, and with technology trending ever further towards mobile to accommodate that change, stakeholders are gradually acquiring instant access to project information. While this presents project managers with the challenge of staying on top of their projects amid a dynamic data flow, it also grants them opportunities to engage more closely with stakeholders every step of the way."

Gilmore notes: "We predict that the current trend towards artificial intelligence (AI) and robotics will only accelerate in the coming years. Right now, project management is just scratching the surface of what those trends could mean. In the past three to five years, digital transformation, mobile and the cloud have all become industry mainstays, with firms and individuals adopting them at ever-increasing rates. Indeed, Gartner says that, by 2020, a corporate 'no cloud' policy will be about as rare as a 'no internet' one is today.

"It's exciting – but firms must ensure that they're not lured into making unsuitable systems choices by hype or buzzwords. Instead, they must focus on realising value from new technologies. While we need to encourage efforts to extend and integrate the many components of intelligent systems, the top priority must always be to achieve a strong correlation between technology and profitable growth."

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AGILITY QUEST

This is a priority that Leslie-Carter would undoubtedly recognise, based on Arup's growing reliance on technology-based infrastructure for logistical purposes.

"It's now a regular feature of our projects for virtual meetings to occur in geographically dispersed locations and time zones," he says. "Our staff and offices continuously utilise teleconferencing facilities and skills so that information can be shared regardless of time or place. In addition, our workplaces have shifted to a more agile format, where employees sit in project teams, rather than reflecting our organisational structure. This change has forced us to redevelop how all of our desks, IT infrastructures and floor layouts work."

His experience chimes with Gilmore's belief that "technology in itself is not making processes more complex". As Gilmore explains: "The approach should be for firms to select technologies that do the complete opposite – improving efficiency, taking away admin, boosting control and visibility, and enabling new ways of working on the go, anytime and anywhere. The focus should be on enhancing business agility and flexibility to deliver improved outcomes."

As such, he says: "Every project management firm must ask itself: which KPIs are we looking to address? Which service lines or processes will these technologies enhance? How will they impact our competitive position in the market? Effective change management and smooth adoption of technologies that will have a measurable impact on your business and ways of working are the primary goals here. A solid governance model and disciplined value measurement must be integral to your technology selection."

On the flip side, Gilmore offers a word of caution: "The ease with which technology can be used to measure a host of different KPIs can sometimes tempt firms to overcomplicate how they measure the effectiveness of their change management drives. We always urge firms to: a) focus only on the KPIs that have the greatest impact on delivery and financial success; and b) fanatically enforce them to improve performance. Training of project managers by change leaders within the business is also crucial to ensuring effective technology adoption."

PLUG INTO PEOPLE

While firms will require bespoke solutions, Gilmore notes, their new platforms will also need to meet certain basic standards: "In the enterprise resource planning space, where we operate, software must provide capabilities for the SMAC model (social, mobility, analytics and cloud).

"That's a core requirement for any leading, global, project-centric firm. It's critical that a firm's new technology will enable its most vital resource – its people – to collaborate more easily and have anytime/anywhere access. It must enhance their analysis, management and understanding of data insights, and their ability to act on them, while providing the cost, upgrade and security benefits of the cloud. The technology must be fit for purpose. You wouldn't want a GP to do open-heart surgery – so why would you want an out-of-date technology to act as the foundation of your people and processes?"

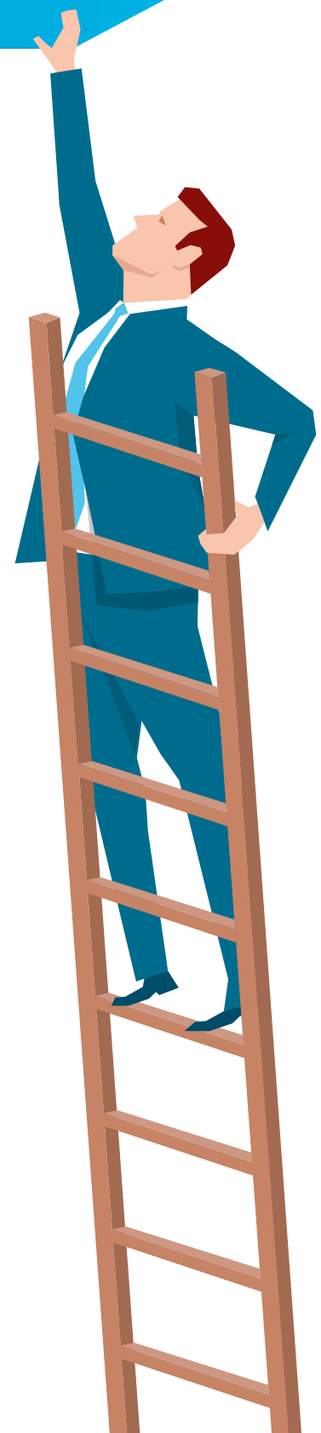
One further point that a project management firm must consider when adopting new technology, says Gilmore, is the future shape of the business: "There's no crystal ball, but weighing up aspirations, broader industry trends and company growth targets is important. You must also assess the scalability of the solution: will it enable you to accommodate business changes and advancements?

"This goes beyond simple upgrades. It may be difficult to picture how your firm will use robotics or AI in, say, five years' time – but you could choose tools that will pave the way. For example, software deployed through the cloud, on platforms such as Amazon Web Services, would beat an internally hosted system, because it will provide you with connections for adding AI later down the line."

AGE OF THE HYBRID

Gilmore's point on how firms must use technology to support their people reflects a consensus among 'future of work' experts that digitisation will bolster the workforce – not replace it. As Arup's Leslie-Carter points out: "The use of smart algorithms to sift through project communications and compare them against risk registers has demonstrated the need for people-based data to be not just managed, but effectively interpreted. It will not be long before sentiments in communications are being assessed to understand how project team members are feeling."

In Deloitte's 2015 automation report, *From Brawn to Brains*, almost three-quarters of UK firms that the consultancy polled said that they "will employ more people (net) in future" and that, broadly, "businesses will need more skills, including digital know-how, management



capability, creativity, entrepreneurship and complex problem-solving."

The report stressed that, far from being a monolithic threat to employment, technology could in fact "change the nature of an occupation". It explained: "A significant evolution of cognitive occupations over the past 15 years has been driven by humans and machines working together. This augmentation of human intelligence can deliver enhanced productivity, because both humans and machines are matched to those tasks each performs best... knowledge-rich occupations are beginning to experience this shift."

All those points were reiterated in the more recent Accenture report *The New Face of Wealth Management in the Era of Hybrid Advice*. That paper explored the relationship between AI and human employees in the finance world, amid the rise of so-called 'robo-advisory' platforms.

"While the robot-versus-human debate garners headlines," it said, "the future is not an either/or scenario. Rather, it is an ampersand – humans & robots... Combining the best of both worlds – the low cost and access of robo-platforms with an advisor's expertise in handling more nuanced or complex investing scenarios – hybrid firms ranked higher than all others in several dimensions critical to customer loyalty."

DREAMS OF TOMORROW

In Gilmore's view, the same applies to project management: "This industry is a knowledge economy, so the need for professional skills will always be crucial and never completely eroded. Automation and AI are massive advantages for more commoditised tasks, such as data profiling. If you can provide greater efficiency, accuracy and cost control by offering such services, you will set your firm apart. However, the one thing AI and robotics can't do is dream. As such, providing opportunities for development to the next generation is critical. That will involve making education and training flexible enough to teach new skills quickly and efficiently. And, as technology never rests, project managers will have to commit themselves to a process of lifelong learning."

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With that in mind, Gilmore advises: "New entrants to the profession should keep an eye on the skills that will continue to be in demand, and which AI advancements will support, such as more complex consulting and modelling tasks, data analytics/interpretation, and the recommendations that project managers make to their clients. Call those the 'USP areas'. Furthermore, the march of technology is only making the need for emotional intelligence ever more urgent. Skills such as collaboration and communication will be equally essential to the success of next-generation project managers."

As far as Leslie-Carter is concerned: "This is the most exciting time to be in project management. Against the backdrop of APM becoming a Chartered body, we're seeing the emergence of ever-larger and more technically complex projects, underpinned by social-needs business cases. The requirement for projects to tackle social issues will only increase amid efforts to achieve climate resilience and care for ageing populations. The demand for smart algorithms and automated processes to take on administrative roles will grow substantially – and that will allow project managers to focus on developing robust business cases and guaranteeing value for money."

Gilmore adds: "We predict that, in five to 10 years' time, the working relationship between project managers and technology will be even more seamless than it is now. The current challenges around adoption and measurement of time-to-value will be addressed and more fully understood as the impacts of both make themselves clear across the industry. By its very nature, technology is a fast-moving, ever-evolving and compounding force, and resisting it is futile. The time to embrace and turn it to your advantage as an individual – and a business – is now. It is critical for prosperity in this profession."

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