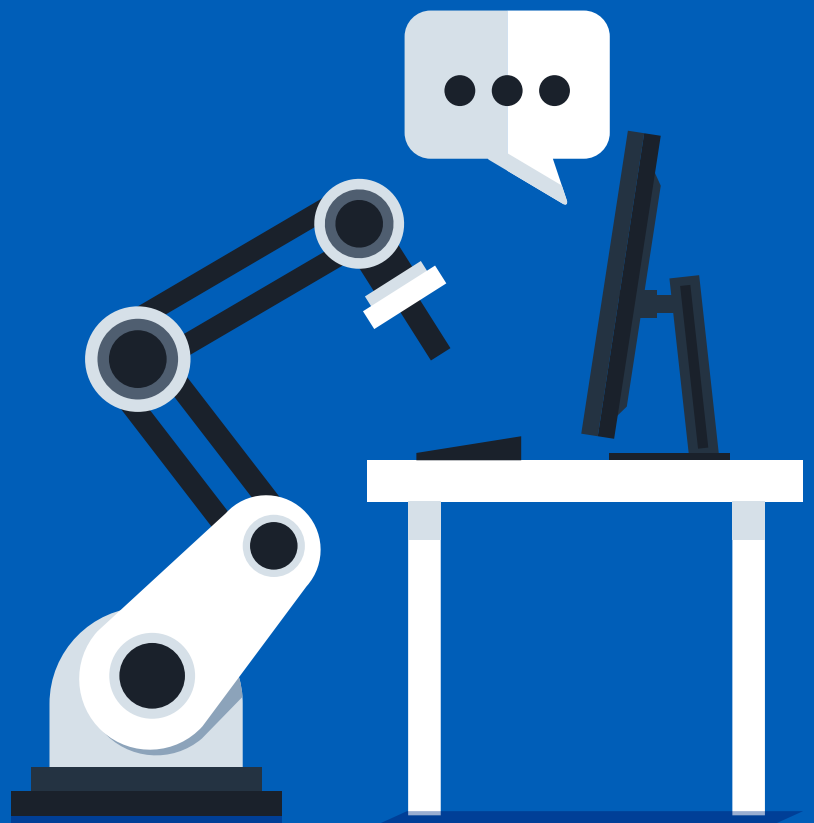# KPMG

Real opportunities from artificial intelligence

How IT service management is set for transformation

Artificial intelligence offers IT leaders an opportunity to make IT service management (ITSM) more efficient and to enhance the experience for internal customers.

Artificial intelligence (AI) technologies, including machine learning, predictive analytics (PA) and robotic process automation (RPA) are maturing fast. At KPMG, we see four different opportunities for ITSM to apply these technologies to improve efficiency and increase internal customer satisfaction. Each can be implemented relatively easily to demonstrate the potential of artificial intelligence and lay the foundation for a wider programme of transformation.

Four key opportunities to leverage AI in ITSM

Improving self service

Typically between 30–50% of requests to IT departments comes from users who need help finding information that already exists. These requests can consume as much as a third of the capacity of the team. Making it easier for users to self-serve promises huge gains in efficiency, as well as a better service experience.

For example, a user may have a simple query such as 'how can I get email to synch on my mobile phone?'. The answer exists in company policy or in a publicly available knowledge article, but the user can't find it. Using chat bots equipped with natural language processing and machine learning from user feedback to select relevant responses can get users to the information they need more easily, without involving the service desk.
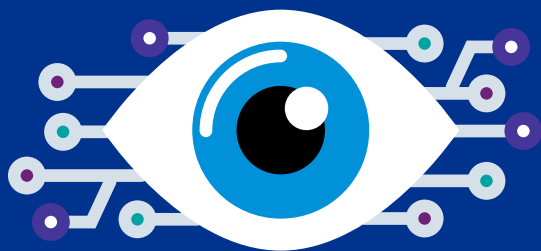
Handling low-complexity queries more efficiently

The same AI technologies can also be used to manage slightly more complex queries, where a human worker needs to be involved at some point. The benefit here lies in improving agent productivity and enhancing the user experience. Chat bots and machine learning still direct users to the appropriate content for self service, but task-based routing engages a member of the IT service team if approval or additional support is required. This could be in situations where answering a query requires getting information from a system that a user is not permitted to access, for example.

Resolving complex queries

RPA can provide automated support to help service desk staff respond to complex requests more efficiently. As an example, using RPA can make the task of setting up a user in the identity access management (IAM) system faster and less labour intensive. A member of the IT service team might receive several documents describing the user's role, seniority level and access permissions for different functional areas, and have to check policies to validate how much access the user is allowed. RPA can do basic checks across different systems to confirm that the information provided about the user is accurate, and to make recommendations on access based on querying the relevant policies. The team member then performs additional checks that are less easy to automate and makes the final decision on what access to give the user.

Using RPA like this makes level-two teams behind the service desk more productive. Given these are typically experienced technical people, re-directing their effort from transactional repetitive tasks to more strategic work can be 10 – 20% of a typical business case.

Making smarter decision on where to focus resources

Predictive analytics can be used by ITSM to predict future trends more accurately and adjust resources so that internal customers get better service and the function becomes more agile.

Consider an outage in a data centre. This will typically throw up alerts from every piece of hardware and application affected. Machine learning can be used to de-duplicate events with the same root cause, while PA can be used to spot patterns that indicate which events have caused critical outages in the past, allowing these to be prioritised. The benefit here is that in an emergency the most skilled people are focusing on the real root cause rather than triaging large volumes of incidents.
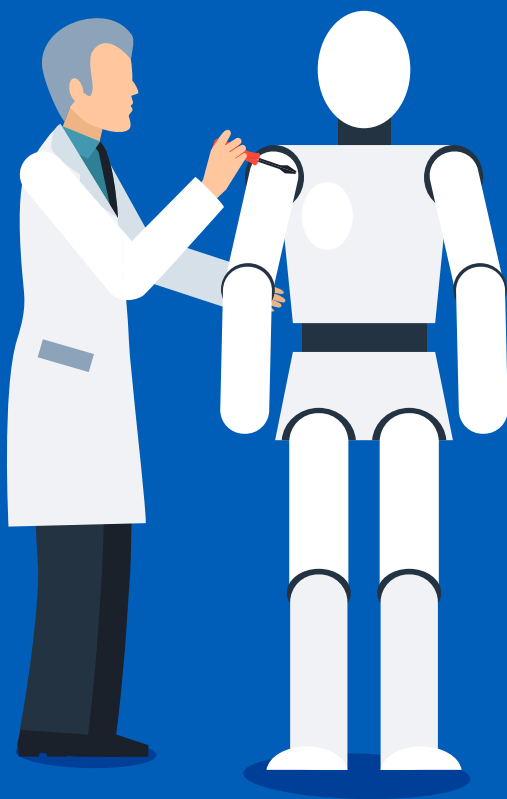
Unlocking business benefits

Unlocking the business benefits from new technologies like AI always depends on getting users to adopt new applications fast. A 'design thinking' approach, focused on making people's interaction with technology simple and intuitive, can make this happen. Plans to implement AI technologies need to span a wide range of challenges: from scoping out the user journey, through stakeholder communication and training, to user incentives and cultural aspects of change management, and working out how to validate the realised benefits. If the technology is fantastic but users don't have an incentive to break established habits, a successful transition to the new approach won't happen.

Effective change management is the other part of the equation for ensuring a successful transition. Deploying AI disrupts work patterns and re-casts established job roles, and can reduce the requirement for human labour. Most businesses embrace the idea of AI technologies as a way to automate repetitive tasks that staff don't find rewarding, freeing them up to focus on more interesting, higher-value activities. This means ITSM functions planning to harness AI need to be ready to invest in re-skilling and re-organising staff.

Next steps

AI has exciting potential to reduce the cost of ITSM and enable the function to deliver a better service for internal customers. But it takes focus to ensure that investment in these new technologies delivers the anticipated benefits, and careful planning to manage the impact on people whose skills are being augmented by an intelligent machine.

If you are an IT leader, consider the following steps to lay the foundations for successful transformation through AI:

– Reassure the function that their expertise in managing processes, designing systems and formulating policy is not redundant. It will be critical to shaping the future function and the successful adoption of AI technologies.

– Secure the right blend of business, change and technology skills in the project team to ensure the business benefits are achieved and clearly validated.

– Start with a multi-phase initiative with ambitious goals and begin with small 'quick wins' with clear success criteria. If the first phase is successful, this will maximises momentum for a wider transformation.
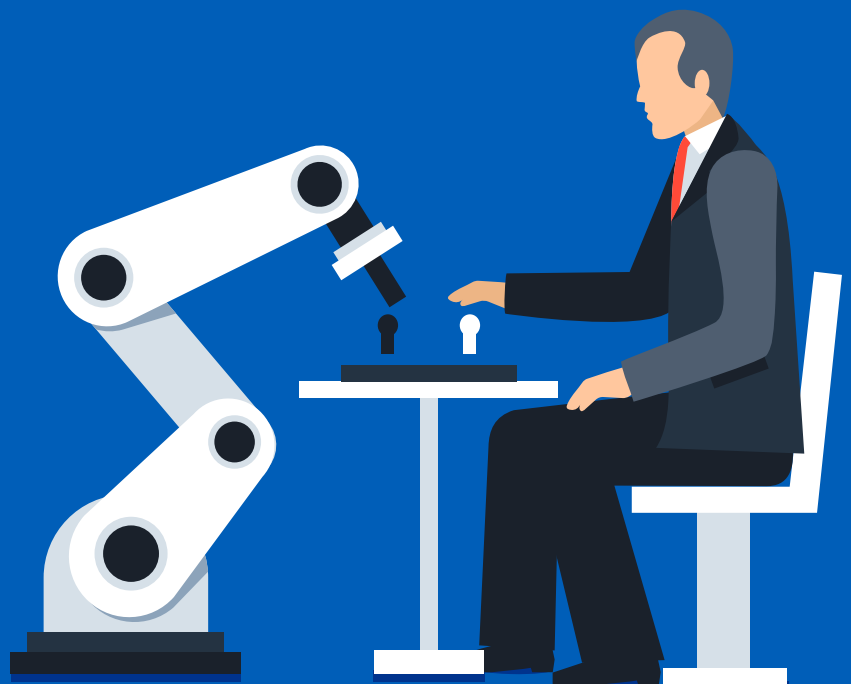
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