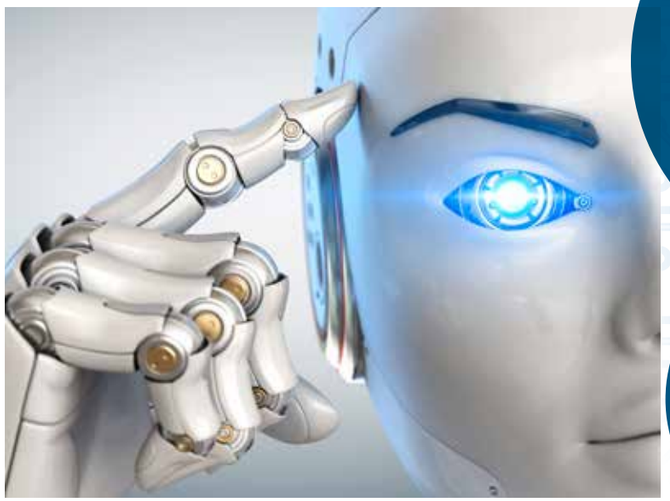
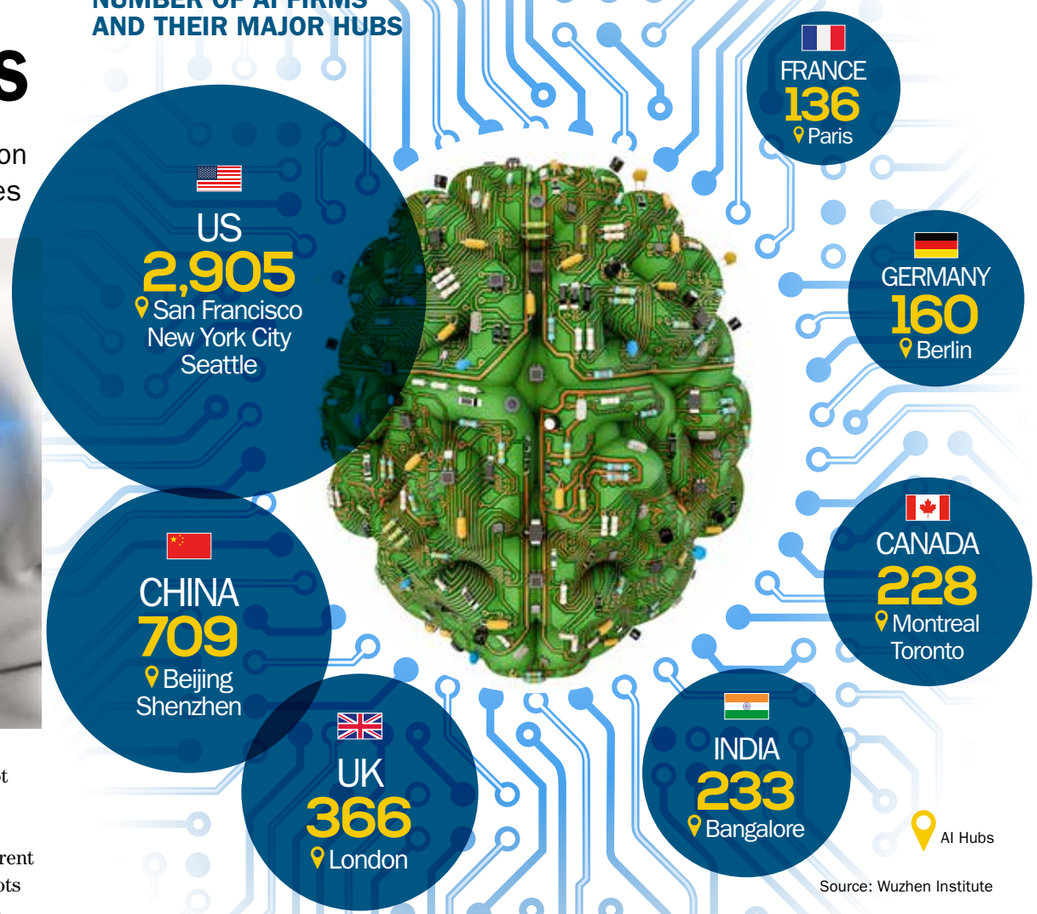
ROBOTS SET TO TEST MANAGEMENT SKILLS

The effectiveness of smart machines will depend on the ability of managers to leverage their capabilities





The transformation of the workplace by artificial intelligence (AI) is under way, thanks to the growing acceptance of machine learning and smart robots. But a brewing challenge is how humans will interact with their new 'colleagues'. If AI permits robots to provide intelligent advice and insights, the onus will be on managers to interact with them as part of the team and know the limitations of their output.

Learning how to oversee robots will be especially relevant for managers in the GCC. For one, there is less of a tradition in the region compared with global leaders (for example, Japan) in interacting with robots – although this is quickly changing, as evidenced by the introduction of intelligent robot police in the UAE.

Secondly, in a nation with a diverse labour force, how different communities interact with robots will be divergent. There will be challenges in how to design smart robots that are culturally aware or intelligent. Even the gender of the voice of robots may come fraught with cultural sensitivity.

Managers must do more than just assign tasks to AI robots; they will need to learn how to manage these robots like other workers. AI robots are great at narrowly defined tasks, but reality is complex and robots will invariably fail, as they lack creativity and the ability to set their own goals. Machines, for the foreseeable future, will lack the cultural nuances and common sense that is taken for granted with humans.

The effectiveness of AI robots depends on the ability of users to leverage their capabilities. It is up to managers to ensure that smart functionalities are not wasted on routine or unhelpful assignments. Even if these robots have the ability to work prolonged hours, their time is still scarce. Similar to human employees, these robots will also need 'holidays' as down time for repairs and upgrades.

Part of managing AI is the amount of trust humans will have in the actions and advice of intelligent systems, which requires perspective. For example, when an Uber self-driving car crashed, the reaction was an immediate distrust of AI. But this overlooked the fact that human-driven vehicles are involved in accidents at a far higher rate.

Job losses

Many fear a large displacement of humans by smart robots. AI's ability to analyse big data and automate routine tasks means job losses will affect many sectors, and not necessarily just low-skilled workers. For example, an AI algorithm can carry out complex calculations in near real-time that would be impossible even for the brightest human researchers.

Likewise, applications such as Google Translate are providing near real-time translation, directly competing with traditional translation services. But the risk is not that machine translators will totally replace human translators, but rather that human translators who leverage AI translation technologies will displace human translators who are not using AI. There is no 'race against the machines', but rather a competition of who will best use the machines. As a result, managers who see AI as a foe rather than as a friend will likely be left behind.

The Gulf nations, and especially the UAE, have ambitions to become AI hubs. But transforming the region from a hydrocarbon-based economy into one that is innovation-driven will not be easy. The creation of a thriving AI ecosystem requires more than just deep pockets. In reality, competitive AI cities are those that can offer an attractive lifestyle just as much as an attractive work package or fancy lab equipment.

The San Francisco Bay Area, home to Silicon Valley, is the global leader in innovation and AI. It is supported by the presence of world-class universities and research labs specialised in AI, a deep investor market, an attractive lifestyle, an openness to talent and the English language.

But the US is not the sole player in the AI ecosystem. As other players have emerged, it is clear that policy matters and gaps are not insurmountable; the luck of history/geography is not permanent; and vast leaps and growth in AI will enable the creation of new hubs specialised in new fields of AI.

For example, Montreal is a leading AI hub thanks to government support of AI research and funding for AI companies; the presence of stellar universities and research centres specialising in AI; a multilingual (and English capable) society with an attractive lifestyle geographically close to important markets; and a relatively low-cost centre for operations. Additionally, inward-looking immigration policies affecting the US and UK, and Canada's strong connections with China, are channelling more AI talent to Montreal.

KAI CHAN

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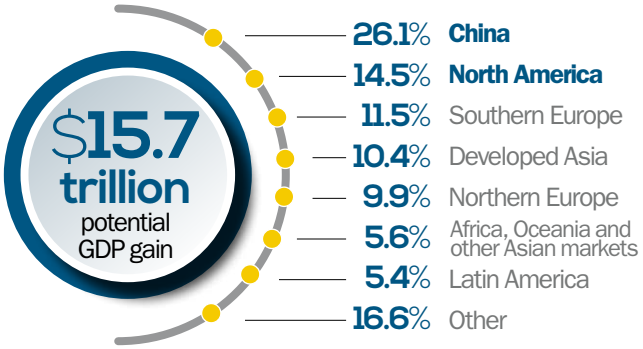
Biography

Sep 2014-present	Distinguished fellow, Insead (Abu Dhabi)
2017-Jun 2018	Senior VP finance & legal, Ormuco – The Connected Cloud, Montreal
Sep 2011-Feb 2017	Adviser & economist, Prime Minister's Office of the UAE/Minister of State Office
Nov 2007-May 2011	Associate & economist, FG Companies

AI'S IMPACT ON GDP BY 2030



Source: PWC

So, what can the GCC learn from Montreal? On the policy side, government support in the form of tax credits and research grants have been pivotal in the city's transformation into a global AI hub. Equally important, the fun lifestyle and concentration of AI talent has made Montreal a desirable place for young AI workers to spend time.

Attracting AI talent into the Gulf and developing the local talent pool will not be an easy task, both at the macro and micro levels.

For one, there is little research activity at UAE universities on AI-related fields. Although places such as Abu Dhabi's Masdar Institute of Science & Technology and Khalifa University of Science & Technology have ambitious plans, such goals have long horizons.

Moreover, the domestic pipeline for AI talent is limited, with a low uptake by local (and regional) students of the disciplines that support AI. This is exacerbated by modest academic performance in these crucial fields. Ensuring the robustness of both the domestic and external pipelines for AI talent will be the challenge for policy makers.

Finally, we must also examine the ethical challenges of AI. Although the economy will evolve and new jobs will replace those lost, the transition is expected to be disruptive and long. Furthermore, it is unlikely that those who go out of work will ever be able to transition to the jobs of the new economy. Moreover, a loss of job runs much deeper than forsaken income, but also to people's self-worth.

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Ethical issues

In parallel, how do we go about potentially sensitive issues such as assigning gender, race and culture to AI robots? Will our human biases be transferred to them? After all, AI is only as smart as the humans who programme them. What about the legal rights of intelligent robots? Should we be allowed to design AI robots that cater to questionably immoral purposes? And what about the militarisation of AI?

There will also be distributional effects in job losses. For example, if truckers primarily come from a certain community, then automation means some groups will see greater employment shocks than others. This will exacerbate an already pressing problem of inequality. It will require laws to minimise harm to affected communities.

In summary, the AI revolution will present both an opportunity and a challenge. How managers handle these new technologies will dictate to a large extent humanity's success (or failure) in the 21st century.