Become digitally disruptive:

The challenge to unlearn

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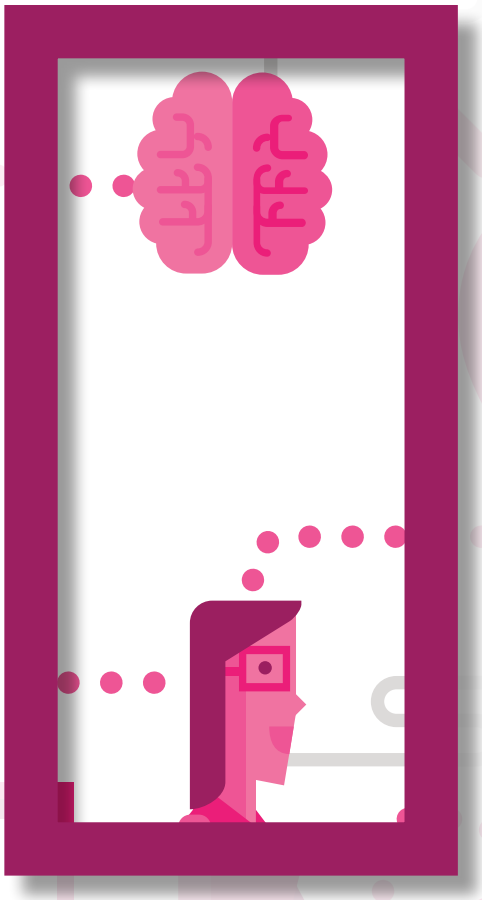

THE NEW WORKPLACE:

Battle for Brains

A recent University of Oxford study[1] concluded that over the next 10 to 20 years almost 50% of jobs in the U.S. will be taken by computers.

With that being the case, you may well ask what jobs we humans will be doing. We can't answer that, other than to say chances are they haven't been "invented" yet.[2]

Digital times, digital measures

As the pace of new technologies in the market picks up, so does their adoption and proliferation across industries. Most companies today will acknowledge that they are digital businesses operating in a digital economy. The savvy know they must provide higher-value services, with software and data at the core of their differentiation.

IT, in turn, knows it cannot make this happen without new skills. Beyond the need for data scientists, software engineers and experience designers, there is a need for whole new functions, such as data anthropologists.

Most disruptively, a new class of "digital talent" will form the foundation of the digital economy and will be a key asset for enterprises looking to stand out. That's right—the next generation of workplace "brains" to compete in the job market will likely be a combination of data and algorithms (i.e., intelligent software), otherwise known as a robotic workforce.

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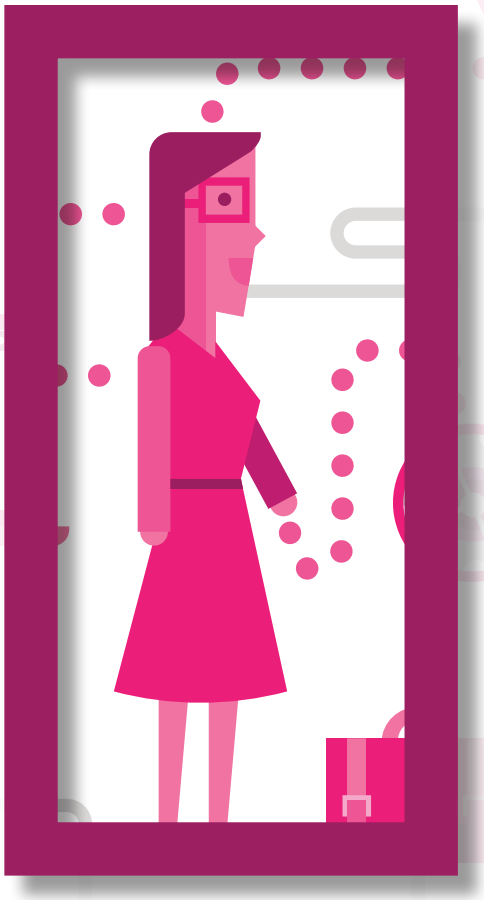
1 "The Future Of Employment: How Susceptible Are Jobs To Computerisation?" Oxford Martin School, University of Oxford, Sept. 17, 2013
2 "In 10 years, your job might not exist," The Washington Post, Jan. 5, 2015



Blend and compete

In this context, competition to recruit and retain talent will be greater than ever. However, no spaces will be reserved for underperformers, and smart companies will do everything in their power to make the transition to a digital future in the hope of raising productivity.

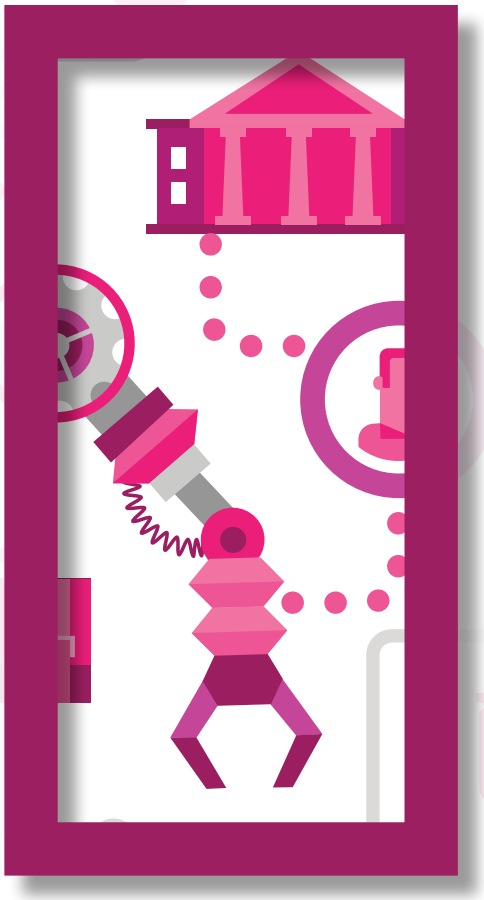
In the process, humans will be crowded out of many traditional jobs. However, companies can remedy this and raise their own value by finding the right blend of human and "digital" talent (robotic and machine intelligence).

The digital economy is in effect a sharing economy—where physical and virtual worlds blend, and humans and machines alternately compete and cooperate, augmenting each other's capabilities and sharing workspaces and job functions.

One of the first steps to making it happen will be the implementation of a digital workplace—an essential enabler of the tools to help make the shift to a smarter data-driven enterprise that frees up critical "bandwidth" (human talent) to do higher-order tasks. Of course, these tools need to be based on borderless platforms and open ecosystems that can expand an organization's potential.

Skills like experience designers, analytics, machine learning, data scientists and natural language processing will be key to plug the talent shortage created by the digital workplace. At the same time, these skills will complement intelligent machines and assure the continued relevance of humans at work.

In the near future, it won't be surprising to see companies reinvent their HR departments as HMR departments—human/machine resources.



Managing complexity and risk

This scenario is not without significant risks. Companies need to start thinking about additional complications like security and ethical elements.

In addition, with the increasing avalanche of data from new and existing machine-originated streams, employees need to learn which of these can be ignored and which need to be captured, analyzed, shared and prioritized. This is almost impossible without the aid of more software and smart algorithms.

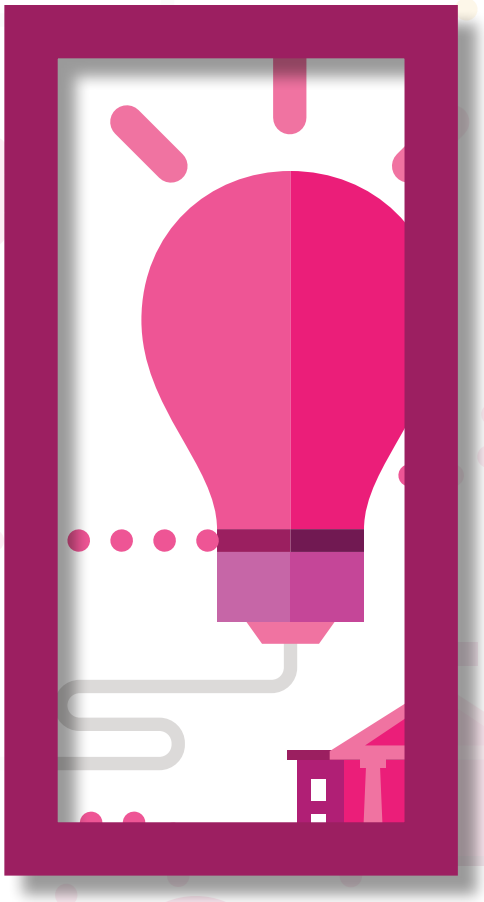
Companies will further need to implement an apprentice model, with employees teaching and guiding the software intelligence.

The leaders focus on outcome-based business

As more automation from smarter machines enters the workplace, companies will require employees to augment their own roles via automation. This will enable the shift to a more outcome-based business and economy, greater individual centricity, new monetization models and a better return fueled by data.

Rio Tinto, one of the leading mining companies in the world, has been implementing a mine of the future[3] and completely redesigning the mining process as it transforms into a digital business. The company implemented autonomous monster trucks, drilling systems and rail systems that have traveled several hundred thousands of miles and hauled more than 100 million tons of material. Each of the smart machines generates a tremendous amount of sensor, network, GPS, radar and application data, which needs to be analyzed, visualized, correlated and presented to operators thousands of miles away.

3 "Rio Tinto Rolls Out Ambitious, Autonomous, Mine of the Future," Oct. 9, 2013



To achieve this digital transformation, the skills requirement was vast and went beyond the traditional mining, mechanical engineering and geological skills. It is also a significant transition for the operators and workers overseeing the machines and making decisions as before, but supplemented by real-time data.

Rio Tinto is an extreme example for a particular industry. A less extensive skills reboot within an industry not traditionally thought of as "industrial" can be found in Tierra Antigua Realty, a U.S.-based real estate business. The company is one of the first of its kind to get regulatory approval to fly unmanned aerial vehicles (UAVs) for commercial purposes. It will use the drones to take high-resolution photographs and videos of higher-end properties as part of its sales collateral, and will have to take new skills on-board to program, manage and control these smart machines.[4]

Democratize the learning curve

The shift to an enterprise digital workplace can be costly and resource-intensive. However, developments under way can help address these challenges. For example, Microsoft is releasing Azure Machine Learning (ML), a learning system for the masses that provides predictive and artificial intelligence elements via the cloud and is programmable.

All businesses must prepare a digital workplace in which to produce the high-value outcomes and monetization models both enforced and enabled by the speed-up of the digital future. In doing so they must find the right blend of human and digital talent, and prepare for and manage the transition.

4 "How one real estate agent plans to use his drone to help sell homes," The Washington Post, Jan. 6, 2015

About Avanade

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