How Technology and Al are Changing Knowledge Management

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Background

Just what do we mean when we say knowledge management? In the simplest terms, knowledge management refers to getting the right information to the right people at the right time.

In our fast-paced, rapidly changing world, we no longer live in what is sometimes referred to as a VUCA environment (volatility, uncertainty, complexity, and ambiguity). Today, information is often brittle, anxious, non-linear, and incomprehensible—BANI for short.

This change is really nothing short of an information crisis. We get too much information from everywhere, all the time, more than we can digest, but correcting this onslaught is no simple matter. The right information is not merely the right content; it's also the right amount and the right structure, from the right, most convenient media sources.

As never before, leaders are treating knowledge as a strategic asset. The world is rethinking where and how people work — and how technology can best support that work. Organizations are embracing remote and hybrid work. People are working in different time zones, with different lifestyles and different work modes. What all this adds up to is that access to the right information at the right time is more important than ever.

Ultimately, access to information should not be complicated. In fact, it should require the least possible effort.



Why Knowledge Management Matters

Employees are reporting increased frustration with the disorganization of available information. After months of a grueling pandemic, people feel overloaded and burned out. That's why the strongest company leaders understand that it is necessary to address the challenges presented by knowledge management head on.

In order to face the challenges of remote work—where team members often never meet in person—corporate culture needs to cultivate information sharing and open communications as principal values.

Research conducted involving 60 000 employees at Microsoft in 2021 revealed some trends which might be applicable to other companies and markets. During the pandemic...

- ① Synchronous communication decreased and asynchronous communication increased (i.e., more emails, instant messages, and unscheduled audio/video calls.)
- ① It became more difficult to convey and process complex information.
- ① There was a decrease in knowledge sharing.
- There was a decrease in searches for new information.
- ① Employees reported more working hours.
- Horker output decreased in quality.

A lack of agility and a lack of innovation fostered poor business outcomes, indicating a comprehensive knowledge management crisis.

Some leaders still don't grasp knowledge management as a meaningful long-term investment. In part, that's because the massive change to corporate culture that implementing real knowledge sharing requires does not produce instant results.

However, the need for change is evident.

¹The effects of remote work on collaboration among information workers. Nature Human Behaviour. September 2021



How Businesses are Facing the Changes

There are many strong reasons to invest in knowledge management.

In late summer 2021, the APQC² (American Productivity & Quality Center) surveyed 365 respondents who are experts in knowledge management, and they discovered that two-thirds of their respondents expect their organizations to invest in knowledge management during the next 18 months. Al and digital transformation are driving the trend to make companies more agile and data-driven.

First and foremost, companies need to develop good team collaboration, by using universally understood digital workplace apps.

Okta research shows that Miro & Notion apps were among the top ten fastest growing productivity tools out of 89 apps under review. Notion is popular for its flexibility and security doing product management, while Miro is a perfect easy-to-use digital whiteboard. Both apps are notably easy to integrate with other systems.

Cloverapp is another innovative project tool that is destined to succeed as it combines the strengths of Notion and Miro in an effort to create the ideal digital collaboration space.

Big corporations are also quickly developing their own branded spaces—everything from Microsoft Whiteboard to Google Workspace.

Metaverse and Facebook Horizon VR workrooms are designed for creation and collaboration, enacting virtual reality in a work context. Through VR, these apps bring digital avatars together—wherever they may actually be in physical space—so that all parties can connect, brainstorm, sketch ideas, and enhance the feeling of being together.

²APQC's Knowledge Management Trends Survey Report, September 2021

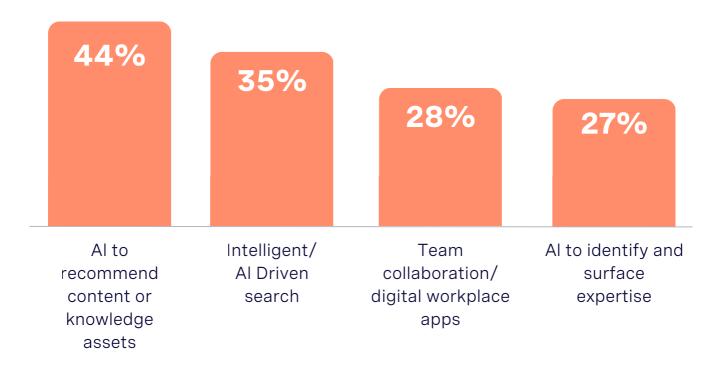


However, it's likely that VR technologies for knowledge sharing will not become ubiquitous right away. People are still more likely to play games than they are to hold a work meeting in virtual reality.

The real news in the coming years is the speed with which AI is growing.

TOP 5 TECHNOLOGIES FOR KM TO EMBRACE IN THE NEXT 3 YEARS

As respondent look further out on the horizon, smart technology takes center stage. The most important technologies for KM to embrace in the next 3 years include AI to recommend relevant to users, improve search results, and identify and surface expertise. Digital workplace and automation tools also remain central to KM's mission.





Al on the Rise

Of the respondents to a recent Deloitte Workforce European Survey,³ 29% claimed that it is difficult or nearly impossible to extract the knowledge needed for daily work from repositories. This figure is 50% higher than the 19% who stated that it was difficult or impossible to retrieve information from colleagues.

The new generation of knowledge repositories, however, cannot be blamed for the unsuccessful transfer of knowledge—that's on the humans.

Only when human trust has been established can Al-driven tools be used to their full potential, giving companies access to knowledge analytics and value creation instead of merely building on knowledge capture.

Technological change has created "a burning need for the development of innovative large-scale upskilling, reskilling, and redeployment initiatives" . Taking this one step further, we suggest that "skills in knowledge management" be pushed beyond their current definition. Instead of operating a definition system that requires inputs and outputs, a deeper understanding of the context and value of knowledge management needs to be spread across all departments, enabling employees to embed knowledge into all aspects of their working life.

It goes way beyond providing good inputs and outputs. With big data and the constant production of facts, concepts, and materials, it is crucial that employees differentiate valuable knowledge from general information. Employees need the smart deployment of smart tools.



³ The new Knowledge management. Deloitte 2021

⁴Preparing for the future of work. World Economic Forum 2020

Al Technologies

Here are the primary AI technologies that are making the news.5

- 1. Neural network Alphafold 2. Google's deep-learning program is used for determining the 3D shapes of proteins. The unique invention is already transforming biology, vastly accelerating efforts to understand the building blocks of cells in order to enable quicker and more advanced cures for disease.
- 2. **GPT-3, GPT-4.** This AI excels at creating content that has a language structure, be it human or machine-based. It evoked evolutionary changes in the whole approach to information, content and knowledge management.
- 3. Automated machine learning. AutoML is the process of applying machine learning models to real-world problems using automation. More specifically, it automates the selection, composition, and parameterization of machine learning models.

Together, these technologies allow AI specialists to develop projects with cameras, face recognition, client service improvement, and the minimization of paperwork. In fact, PricewaterhouseCoopers research indicates that routine paperwork can be reduced by 40%, even when using the most rudimentary AI-based extraction techniques.

⁶It's time to get excited about boring AI. PWC 2021



⁵Opportunities of using AI. RBC Trends 2021

Toward the Future

Super AI points to a level and a speed of progress which may utterly change our lives. To cite just a few examples, AI will someday be able to write essays as well as humans (some texts created by GPT-4 indeed deserve attention), AI will be able to perform perfect surgeries, and AI may replace all human vehicle drivers.

Some tech and futures' specialists say that, during the next century, Al will replace all jobs. The hysteria is still there, although prompt engineering proves that effective cooperation of human and Al still gives the best result. Still, in 2023, some technology-based companies have already replaced their employees with new Al-based models. A recent report from Goldman Sachs estimates that around 300 million jobs might be affected by generative Al, which means that 18% of work globally could be automated.

Naturally, this idea stirs up some alarming apocalyptic scenarios, some of which have already been described in sci-fi books and movies.

What is clear is that AI is developing very fast. Without question, it will be an essential part of handling information management in the future.



Sources:

- 1.APQC's Knowledge Management Trends Survey Report. September 2021
- 2. The effects of remote work on collaboration among information workers. Nature Human Behaviour. September 2021
- 3. Super Knowledge at your fingertips. Deloitte 2021
- 4. It's time to get excited about boring Al. PWC 2021
- 5. Preparing for the future of work. World Economic Forum 2020
- 6. Opportunities of using Al. RBC Trends 2021
- 7. The Potentially Large Effects of Artificial Intelligence on Economic Growth. Goldman Sachs 2023

