AVOKI

IT that sparks your business

Ergonomics goes digital

Key shift changing tomorrow's knowledge work

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Introduction

It's been nearly 25 years since the legendary "father of management" Peter Drucker challenged management to revolutionise knowledge work – aiming for a fiftyfold increase in productivity, just like we've done with manual work in the last century.

At Avoki, we're fueled by this challenge. We firmly believe that leveraging IT and spotless technology is key to make that leap. IT enables groundbreaking innovations that transform the way we work and compete.

We're on a mission to create a world where work flows effortlessly, anytime, anywhere. But we're at a crucial juncture in the digital revolution – artificial intelligence and the digitalisation of our world are pushing us to the breaking point.

That's why we've teamed up with Kairos Future to explore the most important key shifts in knowledge work today. During 2024 we will delve deeply into the future of knowledge work, its rapidly changing nature, and what managers must consider when devising a strategy for the upcoming decade.

Today you get to read all you need to know about "Digital ergonomics".

Let's dive in and revolutionise the way we work together.

Keep on

reading!

"The most important contribution of management in the 20th century was to increase manual worker productivity fifty-fold. The most important contribution of management in the 21st century will be to increase knowledge worker productivity – hopefully by the same percentage." Peter F. Drucker, in "Management challenges of the 21st Century", 1999

Peter F. Drucker

Methodology

Our research is based on a combination of global AI-assisted trend research on tech and the future of knowledge work and the insights from a survey. The questionnaire was distributed to 148 C-suite executives in Sweden, of which 126 worked in organizations with at least 11 employees; the remaining 22 were screened out or did not complete the survey. The survey was designed based on Kairos Future's database of trends and developments, with the executives rating the importance of technologies, developments, and trends to their own organization.

Throughout this white paper, top performers is referenced by the data. Top performers refer to the circa 25 percent of companies where the respondents rate themselves as highly competitive compared to industry-peers in several performance dimensions, such as innovation, employee retention, or profitability.

Low performers by contrast refer to the circa 10 percent of companies that rate themselves as less competitive across all performance dimensions.

It has been shown that self-reported estimates of an organization's performance are a strong indicator of real-world competitiveness by among others Venkatraman and Ramanujam*, and by comparing the extremes of self-reported perfomance, this report can show patterns emerging of which technologies correlate with competitiveness, though it cannot definitively prove causation.

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*Venkatraman, N. and V. Ramanujam (1987). "Measurement of business economic performance: An examination of method convergence." Journal of Management 13: 109-122.

Ergonomics goes digital

With the digitalization and distribution of the office, comfort and accessibility are no longer just physical issues but also digital – a functioning, accessible digital workspace is critical to the future of knowledge work. Consequently, digital ergonomics becomes as important as physical ditto.

The workplace used to be a physical place, with expectation on the physical work environment. Today, it's much more. The modern workplace is both physical and digital, local and distributed.

The spot-free digital working environment with features like single sign-on systems, smooth exchange of information, and other quality of life improvements are taking a center stage in the office of the future.

With work taking place in increasingly virtual spaces – whether remote meetings, "metaverse" interactions, shared digital workspaces or documents accessed from the cloud – there is a growing need for what we call digital ergonomics, the practice of making digital spaces more accessible for everyone using them.

Actually, our survey shows that those who have mastered digital ergonomics are almost 50 percent more likely to be top performers, compared to those who only have physical ergonomics in place.

Stairway to digital nirvana

Comfort is rarely considered in the context of virtual environments – but is just as important as in physical spaces. To illustrate this, we have done a take on Maslovs pyramid of needs but renamed it "The stairway to digital nirvana". The illustration (see next page) shows what we need to be a top performer in knowledge work. Digital ergonomics is defined by the top three steps.

The first step remains the physical foundations, "classical" ergonomics, followed by aesthetics and visuals that is the next layer of the pyramid. (Survey data show that aesthetics and more abstract comfort is as important.)

On top of these basic steps, the successful organization focuses on being bug and hassle free, before moving on to more advanced technological solutions.

The top two steps of the pyramid are easy access to information, followed by a "smart" office which is integrated not only across the organization but also outside of it. The ability to safely share information with actors outside of the organization is a key component of peak digital ergonomics, rendering access to information and collaboration as hassle-free and comfortable as possible.

The stairway to digital nirvana

- Easy access to data
- Remote access
- Collaboration platforms

Smart

- Automated processes for routine tasks
- AI and machine learning
- Secure ways of sharing data outside your organization

Access to info

- Secure cloud
- Stable Wi-Fi
- Efficient tech support
- Single sign on

Bug-free, hassle-free

Aesthetics and visuals

Tables, chairs, doors

This illustration shows what we need
to be a top performer in knowledge work.
Digital ergonomics is defined by the top three steps.
Avokis work is all about getting you up there!

Metaverse and Pokémon Go offices

For a few years now, "metaverse" has been an important part of the discussions about the future of work – lately alongside generative AI. But perhaps the reason the metaverse faded from public view isn't that it is unrealistic, but because it is already here.

A metaverse designed as a platform on which users can collaborate freely and openly is satisfied today by cloud-based document management integrated into a platform which permits chatting and remote meetings, and there are already plenty of such platforms. Such an office is digital-first, and in this case the digital solutions subtract value from the physical office by adding more convenience.

On the other hand, the physical office can be enhanced by digital layers. Think of Pokemon Go, the game that swept the world a few years ago, in which an AR digital interface was added onto real world locations to make them more compelling, useful, and interesting. The "Pokemon Go"-office might include smart screens, QR-codes, AR information, or simply an office with digital conveniences.

The critical aspect is accessibility and digital ergonomics enabled by spotless technology. That is to say, the physical office might be digitally enhanced with improved access points and information availability, or the digital office might be enhanced through the physical comfort of, for example, seamless remote work.

The two sides of digital ergonomics; adding value to the physical space by a digital layer, or adding value to the digital space by introducing convenience of access and ease of use.

Pokémon Go office

Adds value to the physical space by a digital layer

Key: More value than hassle

Smart screen

QR-codes

Personal settings for furniture

Metaverse Office

Subtracts value from the physical space by more convinient alternatives

Key: More value than hassle

Digital first structure

Digital acess points: tech for meetings

Personal settings for furniture

Good air quality

Wi-Fi

Secure cloud

Hassle free

Ergonomic environment

Tech alignment

Spotless technology is crucial

From survey data it is clear how valuable digital ergonomics can be. Services like single sign-on that avoid wasting time on multiple logins, automated timekeeping, easy document sharing, all these save organizations valuable time – but even more crucially, they avoid frustration.

Digital ergonomics is all about avoiding repetitive and mentally exhausting tasks, to free up time and creative energy for something more valuable. Survey data is more than clear on this point.

What seems to be the most critical performance driver is "freedom from technical trouble like freezing computers", when the business leaders independently rate a series of tech-related factors and their organizations performance compared to industry peers.

Among top performers, over one-third of respondents report freedom from technical difficulties in everyday worklife. In the total sample, it is somewhat fewer; but among the worst-performing organizations, almost no one reports having spotless technology.
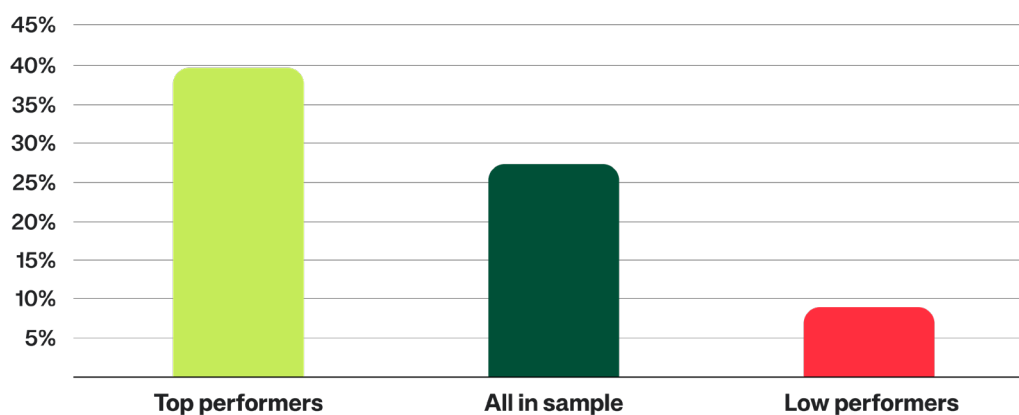
Keep on

reading!

Our survey shows that those who have mastered digital ergonomics are almost 50% more likely to be top performers, compared to those who only have physical ergonomics in place.

Freedom from technical difficulties

Failing tech drives people away

Spotless tech is also critical to employ satisfaction. In a survey conducted by Kairos Future and Pion Group in 2022, employees reported twice as much job satisfaction in a hassle-free environment compared to one with technical difficulties on a daily basis, and were far less interested looking for new jobs.

Amongst people experiencing technical problems on daily basis 60% were planning to leave for a new job within a year, compared to 25% amongst those that almost never experienced problems with technology. This clearly shows the need for digital ergonomics in today's virtual work spaces.

Another aspect crucial to employee retention are opportunities to learn new things. Learning on the job is important and we have to make this easier through well-designed digital spaces.

If ergonomics is going digital, perhaps we might see a shift where this also includes learning and skills development to a much more comprehensive degree, where partnerships with various AI-powered digital learning platforms allow for virtual onboarding processes and skills development. With an ever-growing need for high skilled workers, designing environments (both digital and physical) for learning is likely to become a bigger part of knowledge work across the board.

5 keys to success

One of the manager's chief purpose is to eliminate problems with tech in order to facilitate productivity, employee retention, and innovation. Our survey data shows what you need to focus on in order to reach success.
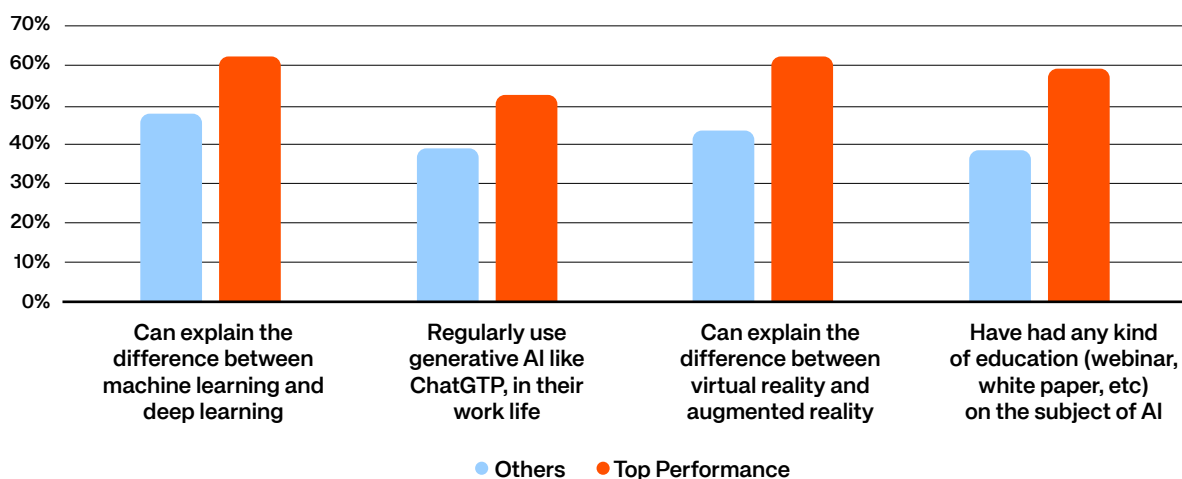
1. Lead by example

Organizations where managers adopt and actively use new technology have a clear advantage.
Our survey data shows that top performing organizations have management with an overall higher degree of understanding. Moreover, organizations where the management rely on new technological solutions also make the process of strategic alignment easier, in which plans for technological shifts or digital transformation more easily come to pass if led by active and enthusiastic managers.

What percentage of your organizations' top-level management do you think:

- Others
- Top Performance

Can explain the difference between machine learning and deep learning

Regularly use generative AI like ChatGTP, in their work life

Can explain the difference between virtual reality and augmented reality

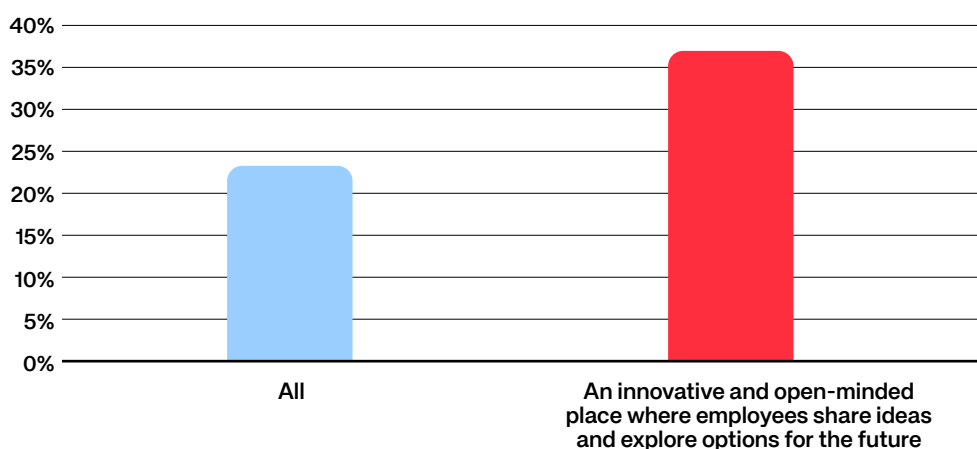Have had any kind of education (webinar, white paper, etc) on the subject of AI

The graph shows the respondent's estimation of what percent of the organization's top management team who have an understanding of these technologies, in top performing organizations and others.

2. Be a learning organization

Organizations that let employees learn in a self-directed, forward-leaning fashion, fare much better than their competitors. This is a trend only likely to increase with more technological options on the table. A clear indicator from the survey is that organizations self-described as "innovative and open-minded" and where employees "explore options for the future" perform far better across all self-reported indicators of success. Letting employees experiment and find the solutions suitable for their tasks is important.
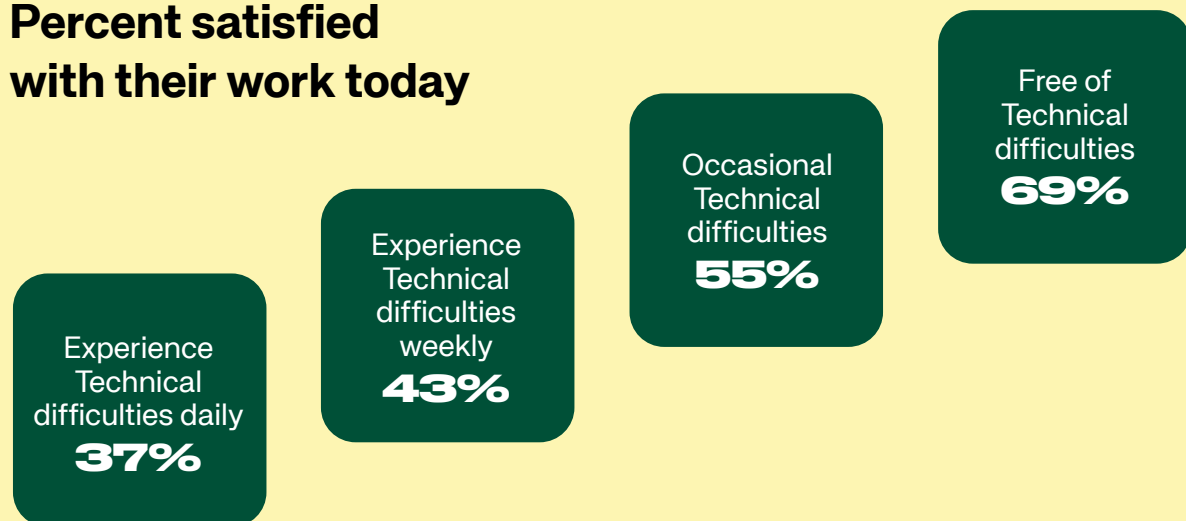
Percent top performers

Bar chart comparing percent of top performers. "All" is approximately 23%; "An innovative and open-minded place where employees share ideas and explore options for the future" is approximately 37%. Y-axis ranges from 0% to 40%.

Among those who describe their workplace as innovative and open-minded, over 35% belong to the top performing organizations. Among the sample as a whole, only about 23% do.

3. Eliminate hassle

Identify technological issues as soon as they arise. Malfunctioning or poorly-adapted technology are a great challenge to employee retention, as clunky IT quickly drains people of their passion for work. A study by Kairos Future and Pion Group shows that those who are free of technological difficulties experience twice as much satisfaction with work as those who have to deal with it regularly.
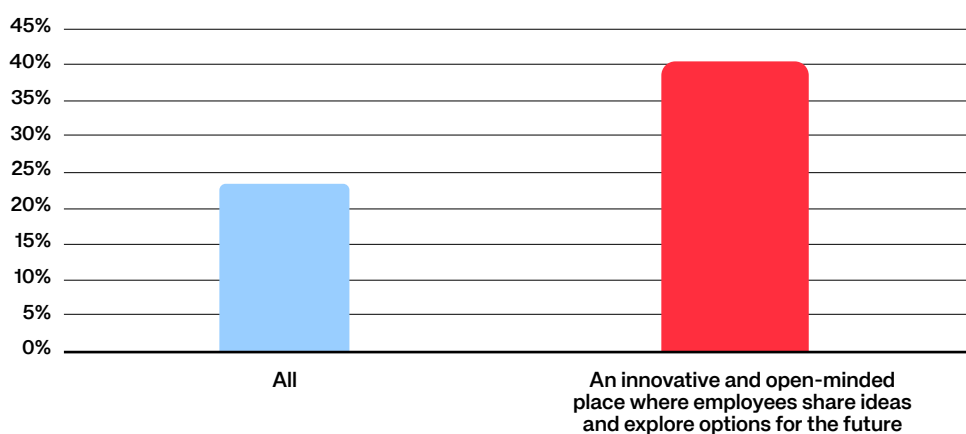
Percent satisfied with their work today

Experience Technical difficulties daily
37%

Experience Technical difficulties weekly
43%

Occasional Technical difficulties
55%

Free of Technical difficulties
69%

Percent satisfied with their work, after how often they experience technical difficulties at work. From the report "Five truths about man, technology and work", Kairos Future and Pion Group, 2023.

4. Make information available

Make sure that information is able to flow unimpeded and that the right information is available to the person who needs it, when it is needed. Especially when it comes to being able to share outside the administrative boundaries of the organization, performance is heavily impacted by easy access to information. Coupling this with the right security measures and balancing accessibility and ease against risk is a difficult challenge, but a necessary one to see the benefits of digitizing an operation

Percent top performers

Bar chart showing "Percent top performers" with y-axis from 0% to 45%. "All" bar at approximately 23%, and "An innovative and open-minded place where employees share ideas and explore options for the future" bar at approximately 40%.

Among organizations with a strong ability to share information with persons outside the organization, four out of ten organizations are top performers – nearly twice as many as in the general sample.

5. Give your employees the gift of time

Every week, office workers spend 75 minutes of their working time on technical issues. This is shown by a survey conducted by Novus on behalf of us at Avoki.

A part of digital ergonomics is to create a digital work environment which avoids disruptions to the workflow, whether they arise from sudden calls and notifications or from technology suddenly needing an update in the middle of an important task. Choosing the right platforms to create the conditions for peace of mind is as important as choosing the right office.

Percent top performers

35%	
30%	
25%	
20%	
15%	
10%	
5%	
0%	
All	We have minimal disruptions at work
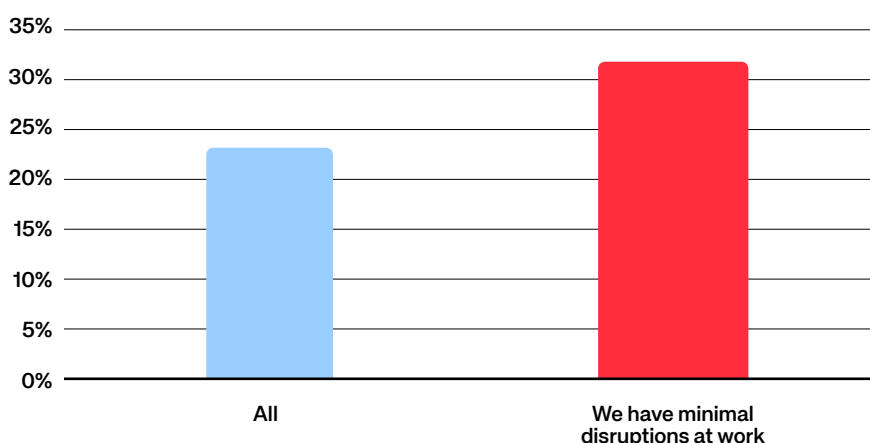
Almost one-third of organizations that state they have minimal disruptions in work belong to the top performing organizations, an improvement of almost 40% over the general sample.

Do you need help with your digital ergonomics?

Avoki have all the tools and services you need. Please reach out for more info!

www.avoki.se

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