Capgemini

TRANSFORM WORKSPACE EXPERIENCES WITH IMMERSIVE TECHNOLOGIES

Elevating experiences: where employee engagement meets customer delight

Behind every thriving company there's a stellar workforce built on a strong foundation that promotes employee engagement, increased productivity, personal growth, and well-being. But lately, it seems that establishing this inspiring basis for business success is more elusive than ever.

Picture this scenario: A new Gen Z employee is excited to embark on their first day of work. They meet fellow coworkers while perusing the workplace and tools that will hopefully engross them for the foreseeable future. But as they go through various training and onboarding activities, the excitement quickly dissipates as they realize that the tech-driven ways of how they shop won't be carried over to how they work.

The newly established attention span of modern-day consumers is now only eight seconds.[1] Brands know what kind of experiences engage consumers, but most workplaces are still playing catch-up. If they don't start providing equally engaging employee experiences, low productivity and high turnover and absenteeism will continue to be a rampant theme.

Reignite workplace motivation

Why isn't the workplace more engaging? Simply put, employees and employers don't see eye to eye. A recent survey by the Capgemini Research Institute found that only 28% of employees say they're happy at work or have the necessary tools to do their jobs well. Conversely, an astonishing 92% of company leaders believe their employees are genuinely happy and have all they need to complete tasks effectively and efficiently.[2] Clearly, there's a disconnect, and, if left unaddressed, will see the two groups drift further apart, leading to indifference and low productivity among workers, followed by their untimely exit – leaving employers scrambling to fulfil yet another vacancy.

It's no secret that great employee experiences significantly reduce staff turnover. But they also lead to consistently high company performance. So, what makes an employee experience great? Some say it's triggered by a positive emotional connection to company services and people. Yet others still add that it's strongly present when employees feel engaged and inspired by their work.

Delivering these happy moments using conventional methods is becoming increasingly harder to do, particularly when the traditional model of a workforce being in one location has all but been replaced with a fully remote or hybrid work scheme. Facilitating connections between diverse and dispersed people across an organization, while catering to their individual needs to get them to feel good and perform at their best, is no small feat. But it can be done.

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moment
convenience
joy

1 https://www.microsoft.com/en-us/us-partner-blog/2021/11/15/you-have-eight-seconds-differentiate-your-business-through-the-art-of-storytelling/

2 https://prod.ucwe.capgemini.com/wp-content/uploads/2022/10/People-Experience-Research_Report_web.pdf

The power of immersive technologies

Envision having the ability to empower teams to react with lightning-fast speed by giving them real-time access to data. Consider being able to explore different options and scenarios in a virtual world to simulate and predict the future. What if employees could learn and adapt faster than ever using new, exciting ways of interaction?

Immersive technologies can include extended reality (virtual, augmented, mixed) and multisensory interfaces (voice interaction, gesture, haptic). These technologies fully immerse users in a digital experience, creating a sense of presence and interactivity beyond what traditional screens or devices can offer. This can be achieved through virtual reality headsets, augmented reality glasses, or haptic technology that simulates the sense of touch.

A highly engaging example would be a metaverse, where employees meet in a shared virtual space, from wherever they are. However, immersive technology is not only about engrossing people in a virtual world. In fact, any technology that captures and holds people's attention, while improving the way they work, can be considered immersive in the workplace. This includes 2D interfaces.

Capgemini recently partnered with Microsoft Viva to build a people experience portal where all services are brought together in one place. It simplifies the daily tools and systems people work with. Now employees log time and expenses, request holidays, find out about relevant courses, and more in one intuitive app. Since it saves them time and aggravation, they can concentrate on more meaningful tasks that bring joy and a sense of purpose.

It's important to consider the optimal blend of interactions these technologies can create throughout the user journey. It's also crucial to determine the appropriate balance between ambient and explicit interactions, as immersive experiences don't always need to involve direct engagement. And lastly, whatever employers decide to introduce must be in line with employee needs.

Time to embrace the extraordinary

Many organizations across different industries are bringing advanced, high-impact use cases to life, where the focus is on increasing creativity and efficiency, improving support and worker safety, and providing an environment where people can continuously learn, develop, and grow.

Here are some ways they're using immersive technologies to give employees a valued experience along their workplace journey:

Recruitment and onboarding. Metaverse-based hiring and onboarding allows companies to save time and money while helping new hires to network and build professional connections. It also improves the employee experience by providing an interactive, engaging way to learn about the company culture. For example, new employees can be transported to a virtual office, where they take a virtual tour of the company's facilities, meet their coworkers, and learn about the company's mission and values, before even stepping foot inside the workplace.

One of our clients was facing a decrease in new hire applications, especially among young IT experts. We worked with the client to design and launch several virtual recruiting events in the metaverse. Each event

attracted and hosted over 100 potential candidates – considerably expanding the pool of talent attracted compared to traditional in-person events (and at the same time increasing employer branding). The flexibility and format of these events also allowed for several virtual rooms, with recruitment challenges tailored to different persona clusters (e.g., white collar vs. blue collar) – which provided further insight into selecting the right candidates for the client.

Daily work and productivity. Extended reality can be used to create immersive spaces that allow remote teams to work better together. For example, VR and AR can make data visualization more immersive through 3D visual content. This can help speed up the design and testing of new services and products and reduce the number of prototypes built.

A client in the energy sector wanted to improve the way important information was shared within its employee teams. Data, such as the temperature and volume of fluid flowing through oil pipelines, needed to be communicated between different people. Our team developed a user assistance system with a user interface that enables unidirectional video transmission – from an operator to a remote technician supervising operations – as well as bidirectional audio transmission between both parties. Our system also included features for real-time tracking and analysis, further improving the way pipeline operations were monitored and serviced.

Learning and development. Immersive technology is having a major impact on training and education. Employees can fully immerse themselves in a simulated environment, allowing for hands-on learning and experience – minus the risks. Tasks can be tailored to individual employee needs and preferences to maximize engagement and enjoyment.

A gas sector client tasked us to create a VR application that would simulate and teach its energy workers how the gas process works. Our application guides users through different scenarios with information and tips along the way so they can be better prepared for what to expect in a real-world situation.

Safety and well-being. Data from digital twins (digital representations of physical objects) is also helping organizations replicate workplaces. With the ability to test various scenarios in a digital copy of a real-life environment, employees can visualize their designs and rehearse complex settings to ensure accurate, safe, and efficient results are carried over into the physical world.

Our team created a digital twin of a client's factory production lines that gives operators, engineers, and managers full visibility and control of production processes and operations. We also developed an application that displays the status of sensors in real time and consists of an early warning system that generates alarms in case of deviations. Our work has helped reduce maintenance costs by 20%, decrease energy consumption by 10%, and improve overall data accuracy.

Support and assistance. Field service engineers working on complex machinery need timely access to detailed information and instructions. Using AR headsets or AR-enabled smartphones, they can scan components of machinery to get AI-guided voice and text assistance to speed up repair.

A client wanted to increase the precision, efficiency, and safety of their engineering construction teams' work. Using a Unity environment, we developed a cross-platform AR app that enables a construction engineer to "see" through walls to accurately locate rebars, voids, cables, cavities, and other objects buried in structures before proceeding with incisions and drilling procedures. The app's interface allows for depth and heat map visualization and data interpretation, which helps engineers conduct more accurate and efficient structural surveys in a much safer manner.

Accessibility and engagement. Today's distributed and hybrid workforce has a range of needs that can be catered to using immersive technologies. For example, using intelligent cognitive platforms, employees with disabilities can enable text or speech, allowing them to participate in meetings and events on an equal footing with their coworkers. This increases engagement and presents a future workplace where technology provides an opportunity for all, regardless of location and ability.

A client needed to change the way its employees held meetings – both online and offline. We conducted user research to find out what people wanted in the set-up of their conference rooms, then introduced Microsoft Teams Rooms to transform the client's 750 existing conference rooms. Several features were added to make it easier for people to participate in meetings, including live captions, transcription services, and voice assistance. MS Surface Hubs were also installed, which have helped make meetings more interactive and collaborative for everyone.

Generative AI at your service

One of the hottest and most exciting topics of today is generative AI. We could not have written this paper without a nod to how it will dramatically impact the workplace.

Generative AI will have a significant impact on workplace behaviors in the coming years – there is no doubt about that. One of the most significant ways this technology is expected to impact the workplace is by automating repetitive and mundane tasks, which will free up employees to focus on more strategic and creative work. This could lead to a more productive and fulfilling work environment where employees can focus on tasks that require human judgment and creativity, rather than being bogged down by routine tasks. As a result, generative AI can help improve employee engagement and satisfaction, as well as enhance overall organizational performance.

However, there are also concerns that generative AI could lead to job displacement and skill obsolescence. As more tasks become automated, workers may need to develop new skills and competencies to remain relevant in the workplace. Additionally, generative AI could also impact workplace communication and collaboration, as employees may need to learn how to effectively work alongside AI systems. Therefore, it is essential for organizations to invest in training and development programs to help employees develop the necessary skills to adapt to this new technological landscape. Ultimately, generative AI has the potential to transform the workplace, but it will require careful planning and management to ensure that ultimately there is a positive impact on employees and organizational performance.

Although still requiring a review and copyediting – as humans need to always be in control of what AI produces – the two paragraphs above (only in this boxed-out section) were written by generative AI. Impressed? This is just a sample of how AI could revolutionize the way content, audio, code, images, and more are created in the workplace.

Why now?

The global extended reality industry will reach approximately $345.9 billion in size by 2030, with a growing CAGR of 33%.[3] Although immersive technology is already being used in healthcare, education, and manufacturing, it's attracting even more attention. We believe there are three major shifts underway that make implementing an immersive strategy essential for today's workforce:

1. The modern workforce has higher expectations for technology to deliver consumer-like experiences. There is greater pressure on organizations to provide immersive experiences that capture and maintain peoples' attention, particularly as people have more choices and control over how and where they work.

2. Immersive capabilities are becoming increasingly embedded into core technologies, moving beyond the niche applications and industries.

3. Organizations are recognizing the importance of diversity, inclusivity, and accessibility in the workplace. They're taking on the responsibility of equipping and empowering their employees while ensuring their safety. These factors contribute to the longevity and success of a business. Additionally, real-time data access, data intelligence, and visualization are now critical to making better business decisions.

Sustainability as a driver

There's no doubt of the increasing importance placed by employees on their employer's stance on sustainability, evidenced by the workplace. This is partly due to the influence of Gen Z, a cohort placing significant importance on employee fulfillment and purpose, and invigorating interaction with colleagues. Virtual experiences are already integral to their lives, so there is a natural confluence of achieving sustainability aims through the use of immersive technologies.

At Capgemini, we have a long-term commitment to environmental sustainability and, as part of our science-based carbon reduction targets, we look at the people aspects of our own environmental impact, such as reducing the effect of business travel and commuting, as well as work-life balance. Covid experience has taught us that it's possible for a business to pivot to remote working, but balance it by in-person collaboration. Metaverse technologies offer the potential to create an environment that provides the best of both workplace scenarios – and that meet the needs of the employee, the employer and the planet.

We also emphasise the importance of our people becoming sustainability promoters through a global training program, delivered via a dedicated virtual interactive sustainability campus. This both connects people, wherever they are in the world and eliminates the need for travel. We are currently investing in further developments in the metaverse that will provide a more inclusive and immersive experience to our people.

We are working with a number of clients from around the world, developing immersive solutions relating to recruitment, onboarding and training initiatives. This is particularly the case for highly dispersed employee teams that may never actually meet for environmental reasons, or in high tech/ research and development units where there is a scarcity of in-depth technical support.

Start with the foundation – the people

The knee-jerk reaction to all this would be to find a partner that can quickly implement exciting, interactive solutions that dazzle and delight customers. This, however, would be the wrong approach. Not all immersive experiences are right for every employee role, so a cookie-cutter strategy will likely fall short of expectations.

Rather than offloading an industrialized, standard offering onto an organization, there should be a greater focus on first understanding the people: their roles, pain points, and what they need to be effective and productive. This information can be used to design experiences that truly resonate with employees. By omitting this key step and proceeding with solutions based on hunches, any investment in immersive technology will be a waste of time and money that could cause more harm than good to a workforce.

Quiet quitting and, more recently, rage applying gives a clear signal that people are dissatisfied with their jobs, which puts pressure on companies to figure out why. As the cost of labor climbs, businesses can no longer afford to turn a blind eye to a disengaged workforce. Employees want a better way to work, and employers must sit up and listen. This includes figuring out how to equip people to inspire peak performance and comfort. Organizations must also factor in accessibility and diversity challenges to ensure that everyone can benefit regardless of their background or location.

Making experiences tangible

Organizations are hesitant to make new investments these days. It's understandable that they want to get maximum value out of the tools they already have. If they're going to invest in new technology, they want to be absolutely positive it's the right investment for their workforce. This is where an end-to-end partner comes in, one that can explore and test various options and connect the right solutions to their needs. This partner should take a consultative-led approach, working closely with the company to understand their goals and objectives, and conducting studies to gain insights into their workforce and workplace.

Capgemini's Living Labs are physical spaces where we showcase what's possible and what the benefits could be. We use them to test and validate use cases so organizations can experience solutions early before further investing in them. We're constantly experimenting with emerging technologies and exploring how they can be practically applied to various workplace contexts. If something looks promising, we demonstrate its potential in action through interactive simulations and real-world examples. This allows everyone to see firsthand how the technology will impact their workforce and daily operations. But it's crucial to look beyond just implementation. It should be a continuous journey of progress, where the focus gradually shifts to monitoring and improving things as employee needs evolve. It's a process that spans from consultation to deployment and constant improvement.

IMPROVING DAILY LAB WORK WITH AUGMENTED REALITY

Lab technicians at Sanofi are responsible for conducting many procedures and following a multitude of methods to achieve their desired goals. With the sheer number of internal protocols and external regulations to adhere to, they often find it difficult to keep up. They frequently must resort to using paper-based support, including equipment tickets and hand-written notes, even beyond the standard operating procedures (SOPs).

To help ease their burden, Sanofi introduced an AR customized interface that projects SOPs onto lab table surfaces. Now with all necessary information clearly visible, the technicians can perform each procedure in an intuitive, step-by-step manner, avoiding errors and inconsistencies. And with direct access to cross-references, such as methods and regulations, they are more organized and efficient to meet the rigorous demands of their work.

The whole process of documentary management and audits is now significantly better, which is positively impacting overall lab performance.

A new era in employee development

Providing immersive experiences in the workplace is more than just a passing trend; it's become a necessity in today's competitive job market. Investments in technology and automation can inspire people to work at their best. Many employees are digital natives who expect technology to be an integral part of their work environment. Failing to meet these expectations can lead to disengagement and decreased productivity. Employers that get this right can make a positive first impression that sets the tone for a long-lasting and successful employee tenure.

So, let's reimagine that Gen Z newcomer walking into their first day and being greeted with a cutting-edge onboarding process that captures their attention. They learn about the company and its culture by taking a virtual tour of its facilities and get acquainted with the interactive tools that will assist them in their daily work. With an individual training path designed for their specific role, they start making a meaningful impact from day one in a workplace that's engineered to help them develop their skills and grow throughout their career.

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IMMERSIVE EXPERIENCES

Immersive technologies have the potential to radically transform how customers and employees interact with brands, products, and systems. Ordinary digital engagement is not enough. Recent technological advances are pushing the user experience to new heights.

So, when brands creatively design experiences that use a combination of modalities (flat UI, natural interfaces, and XR), they can create multi-sensory customer experiences at various touchpoints that are not only personalized but also go above and beyond in terms of convenience and sensory appeal. They drive loyalty and advocacy.

But these experiences need to continually adapt and evolve. Capgemini's CX team supports clients to help them meet customer and employee expectations and outperform competitors. We strategize, design, build, and execute immersive experiences that are contextually relevant, multi-sensory, and emotionally engaging. We help drive business growth for our clients by disrupting the ordinary – creating extraordinary experiences that build memorable and emotional connections.

CAPGEMINI'S METAVERSE LAB

Capgemini believes that the metaverse will offer opportunities for a more connected and emotional experience for consumers (CX), for reinventing the employee experience (EX), and for optimizing R&D, engineering, manufacturing, operations, and supply chains (industrial metaverse).

Capgemini's metaverse lab, a coordinating hub for research and solutions, has been designed to help our clients explore the possibilities of emerging technologies, and shape and execute their metaverse strategies. Our team comprises senior technology experts from across the Group with a strong track record in the key underlying technologies of Web3/metaverse and the development of disruptive actionable solutions.

Our R&D programs cover the future of immersive human-machine interfaces and controllers, work in the metaverse, digital twins, blockchain, Web3, and decentralized approaches..

OUR IMMERSIVE EXPERIENCE AND METAVERSE SERVICES

- **Immersive customer experience (CX):** We create extraordinary experiences that build memorable and emotional connections at each stage in the customer journey, across devices and channels.

- **Immersive employee experience (EX)**: We enable your hybrid workforce by simulating physical world training and collaboration in the virtual world. This increases employee engagement while decreasing costs.

- **Industrial metaverse**: We help business realize the value of digital twins faster, driving profitable growth and sustainability through data-driven performance.

- **Metaverse experiences**: We help our clients imagine the opportunities, plan for, and create metaverse experiences across CX, EX, and enterprise use cases, including technology infrastructure strategy and implementation.

We bring together our CX, EX, and industry expertise to develop bespoke metaverse and immersive experience solutions, from research to implementation and at-scale delivery, using next-generation technologies.

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For more information, please visit:

www.capgemini.com/services/customer-first/customer-experience/immersive-experiences

and http://www.capgemini.com/metaverse

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About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of nearly 360,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2022 global revenues of €22 billion.

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