WHY BRING YOUR OWN ENHANCEMENT (BYOE) IS TRENDING IN 2020

In its annual predictions, Gartner outlines trends that it anticipates will shape IT and businesses for the coming year. In the 2020 list, Gartner's experts predict that by 2023, 30% of all IT organizations will have expanded their Bring Your Own Device (BYOD) policies to include Bring Your Own Enhancement (BYOE) in order to address the role of human augmentation technology in the workplace.

Being included in Gartner's list has given more focus to this ever-growing area of technology while shedding light on ways that businesses can take advantage of it. Among the many benefits that this technology brings, augmented workers are able to improve overall workplace productivity and safety. This type of technology is particularly prevalent in the automotive, oil and gas, retail, and healthcare industries.

As human augmentation technology and enhancements become more mainstream, businesses will need to figure out ways to take advantage of this type of technology while also maintaining network security. Gartner's experts suggest that this will largely consist of a balancing act between maintaining some control over these devices while also allowing employees to use them and letting the organization take advantage of the benefits that they bring. Ideally, a well-crafted BYOE policy will let businesses safely, securely, and appropriately embrace the benefits of human augmentation.

What is Human Augmentation?

Human augmentation is technology that creates cognitive and physical improvements. Broadly speaking, it's something that adds to the human, enhancing capabilities and productivity. It's important to note that human augmentation is not a solution, but rather is a tool that can be used.

Human augmentation is a field of technology that is focused on improving human capabilities. The best results from this type of technology come from combining some amount of AI and human collaboration. Additionally, human augmentation is able to facilitate the read/write capabilities between humans and machines as well as between humans themselves.

The idea of augmented workers is becoming increasingly mainstream, specifically in the area of wearables. Wearable devices are portable, convenient, and efficient, and, as a result, this is an area that is expected to grow over the next few years. These devices are already being utilized in some industries, including manufacturing, logistics, and mining, where these devices increase productivity, safety, and efficiency while also reducing human error.

Primary Types of Human Augmentation

While wearables are currently the most common type of enhancement, they are only one example of physical augmentations that are currently available. Augmentation technology broadly falls into two categories, physical and cognitive. For the moment, businesses are primarily focused on physical augmentations. These are augmentations that improve physical abilities through the implanting or hosting of technology on the body. Types of physical augmentation include sensory, appendage, brain, and genetic. For the most part, sensory and appendage augmentation is what businesses are currently embracing.

Some examples of physical augmentation that are already being used include smart glasses, smartwatches, smart gloves, head-mounted displays, cameras, audio devices, sensors in clothing, virtual reality eye-tracking, gesture-controlled devices, exoskeleton suits, and augmented reality glasses.

What Human Augmentation and Enhancements Mean for Businesses

Enhancements offer some key benefits for businesses in terms of increasing productivity, improving employee satisfaction, reducing error, and improving workplace safety. That said, they also raise a host of issues including security, privacy, and ethical concerns. As a result, it's important for businesses to proactively address this type of technology and to create a BYOE policy that enables them to take advantage of the benefits while minimizing the risks.

Daryl Plummer, a Gartner fellow, summed up this shift well by explaining, "echnology is changing the notion of what it means to be human. As workers and citizens see technology as an enhancement of their abilities, the human condition changes as well. CIOs in end-user organiations must understand the effects of the change and reset expectations for what technology means."

Expanding BYOD Policies

Over the last decade, companies have had to create BYOD policies in response to workplace trends and the consumerization of IT. The concept of BYOD emerged as a result of the rise of employees

using personal devices to connect to organizational networks and systems. Devices covered by these policies include smartphones, personal computers, tablets, and USB drives.

BYOD security has become essential for organizations because whether or not a policy is in place, personal devices are going to be used in the workplace. With a strong policy, companies can improve employee productivity and morale. Without one, companies will face security issues.

A strong BYOD policy first and foremost educates employees about how to use personal devices without compromising organizational data or network security. It should include the types of approved devices; specific security policies; data ownership policies; and details about how much - if any - IT support is given to personal devices. An effective BYOD policy is well integrated with the business's overall IT policies and balances security and employee privacy.

Given the rise in human augmentation technology, businesses will now need to expand these policies and take a large-scale approach to managing personal devices. A strong BYOD policy is a good foundation, but now is the time to expand that policy to include enhancements.

BYOE Policies

As businesses work to craft BYOE policies, a central question that needs to be answered is whether human augmentation can be secure and private while also being effectively used to improve daily interactions. When dealing with human augmentation technology, Gartner suggests that policies should focus on five key areas:

- Security. This type of technology inherently raises security risks. Unlike traditional risks that travel with devices, with human augmentation technology, the risks travel with the employee.
- Privacy. Human augmentation technology makes data and intimate knowledge easily accessible. As such, it raises privacy concerns that businesses need to be aware of and address.
- Compliance. This is a new type of technology that is rapidly changing. Consequently, regulatory and government agencies are frequently issuing new regulatory and compliance requirements. Businesses should keep these requirements in mind when crafting policies and be aware of the need to consistently monitor those changes and adjust policies accordingly.
- Health Impacts. Enhancements have the potential to lead to long-term mental and physical problems. Unfortunately, however, the health impacts are still not fully understood. Nevertheless, this is an issue that businesses need to consider when contemplating utilizing human augmentation in their workplace.
- Ethics. Clearly, human augmentation raises a variety of ethical concerns including identifying specific vulnerabilities, risks, and broad moral issues. Additionally, there are increasingly concerns about the "digital divide," as much of this technology is only accessible to wealthier employees.

Further, when crafting policies, it's important to include incentives for employees to follow and comply with the policies to ensure that they're utilized and effective.

As enhancements become increasingly mainstream in the workplace, it's important for organizations to find ways to safely take advantage of the benefits they provide. Doing so can lead to improved employee morale as well as increased productivity and safety. That said, enhancements raise some unique concerns and businesses need to carefully balance privacy, autonomy, data security, and transparency when expanding BYOD policies to include BYOE.