

A GUIDE TO THE
workplace technology
of the
FUTURE



The future of IT
in business



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With PC adoption in emerging markets growing fast, it is estimated that there will be more than two billion PCs in use by 2015.

Therefore, whereas it took 27 years to reach the one billion mark, it will take only 7 years to grow from 1 billion to 2 billion. ”

- Forrester



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Introduction

Take a look around your office and focus on all of the different technology that's in use. From servers and ERP (Enterprise Resource Planning) software, to network cabling and marketing automation... technology is everywhere. But it's always worth remembering that technology simply enables us to improve the way we complete our tasks. Implementation of technology in the workplace is usually based on four key requirements...



Communication

Does the piece of technology improve the way in which we communicate with our colleagues, business partners and customers? Does it mean we can easily enter into real-time communications with people throughout the world quickly and efficiently?



Efficiency

Technology is there to help us streamline the processes that once plagued the typical office. The filing cabinets have gone, the correction fluid is nowhere to be seen, the in-trays and out-trays have vanished... everything is now done more efficiently and completed in a fraction of the time.



Mobile

This technology has had such a dramatic effect on the workplace that since its arrival 'the office' is now simply a state of mind. People can be checking their emails on a train via their phone, working on spreadsheets in an airport on a laptop, or writing reports on a tablet from the beach while on holiday.



Staffing

Technology doesn't just provide staff with greater convenience and streamlined processes; it can also ensure an organisation is recruiting the best staff to begin with. From widespread advertising of particular roles, to analysing applicants and their skills, technology can help recruit and retain the best workforce for a company.

To help you understand and prepare for the future technology that is likely to become popular in the workplace (and ensure your organisation doesn't get left behind), we've created this helpful e-guide. Read on to see what technological solutions could lay in store for your organisation...

Ultra high definition displays

Four times sharper than a current full HD resolution.

Many of the latest pieces of cutting-edge technology are astronomically priced and are initially inaccessible to the common man (or company); but surprisingly, this does not seem to be the case with latest high definition displays.

We've been hearing about this technological advance for some time – televisions with displays that are four times better than our current HD resolutions. But, many of the top computer manufacturers have actually produced market-ready PC monitors with 4K displays which are surprisingly cheaper than you might imagine.

Companies like Dell, Acer and Samsung have already developed ultra high definition monitors and they are primed to make a big impact in the workplace. Any organisation that edits content in video or photographic formats will be extremely interested in these new displays, but they could soon be common-place in many other offices too. With the potential arrival of 4k cameras and 4k recordings approaching fast, video conference calls could be dramatically improved.

These 4k monitors typically have viewing angles in excess of 170 degrees making them ideal if many employees need to view the same screen; and with the potential to display one billion colours, the image will be crystal clear to all.



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The global wearable electronics market revenue is expected to cross \$8 billion, and the total unit shipment is expected to cross 130 million units globally, by 2018.

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- marketsandmarkets.com

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Wearable technology

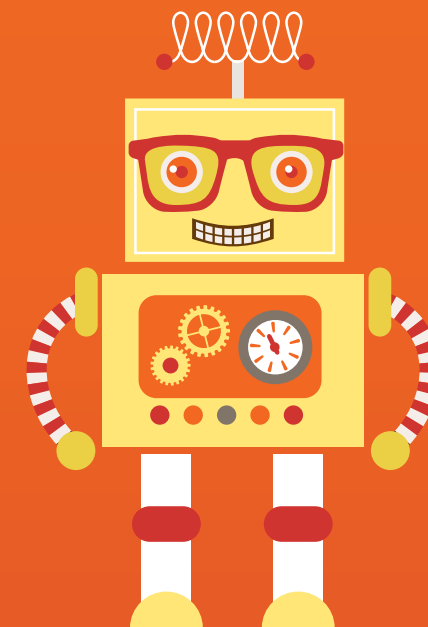
With the release of the Samsung Galaxy Gear smartwatch, Google Glass and the long-awaited arrival of the Apple iWatch, wearable technology is a major talking point at the moment. In addition to these products, the wearable tech sector also includes fitness bracelets, training shoes and even smart-textiles used for clothing.

But how could this innovative technology eventually find its way into the everyday operations of a business? Well, with technological solutions actually on a person's body, they not only have the potential to access information immediately, but their movements and activities can be tracked and measured.

So, if a staff member on a factory line is using Google Glass or a similar solution and is constantly recording what they see, the factory manager will not only be able to analyse things like the employee's work rate and attention to the job, but also identify where they may require additional training.

Taking this idea further, what if that staff member who requires further training can be given this immediately via the wearable technology (i.e. a video played onto their glasses or watch face)? This would truly take real-time staff management and development to another level.

Another example of the positives of wearable technology is a warehouse manager who needs to research information while continuing to direct stock movements. They could potentially access the information via their smart-glasses whilst continuing on with their work. The ability to immediately access the information would streamline the current process of returning to the office to use a computer.



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More than half of new cars in 2019 will integrate voice recognition, as car manufacturers increasingly seek safer ways for drivers to interact with navigation, music or phone calls. ”

- IHS



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Voice recognition technology

The most popular representations of voice recognition are Apple's Siri and Android's Jelly Bean software in modern smartphones. These interfaces allow users to literally speak to their device and receive responses either via text or audibly.

In addition to these, Microsoft now claims to have developed a new type of voice recognition that offers "nearly instantaneous" voice-to-text communication that's twice as fast as current recognition with 15 percent better accuracy (Digitaltrends.com).

But how will this technology develop and find its way into our offices and places of work? Well, at the moment the technology is still being developed and experimented with in many different guises. But, as with the wearable technology mentioned above, voice recognition would enable multi-tasking and therefore streamline processes and reduce resource costs.

A sales person on the road might be able to safely continue driving to their next appointment whilst taking notes, sending emails or completing forms using voice recognition software. This would result in less time spent in car parks completing paperwork and more time spent actually selling.



Human resources technology

As the British economy continues to improve, businesses looking to grow will need to acquire the best candidates.

Human resources departments have been quick to utilise technology in the past. They initially started advertising jobs online via recruitment websites, they then proceeded to recruit the best staff via social media channels; and nowadays it's not uncommon to attend video interviews (via Skype and other software).

In addition to this, they have always been quick to use the best talent assessment tools and this is where the technological solutions are likely to improve in future. In order for organisations to recruit and maintain the best staff, they will need to deeply analyse each candidate (through rigorous testing) to ensure they are a suitable fit for the company's culture and the role they are applying for.

Assessment tools to improve work productivity such as DiSC® provide HR managers with in-depth information on aspects of the applicant's character and personality which can then be cross-referenced with the requirements of the role. This level of research provides vast amounts of data to the extent that some human resources departments are employing data analysts to collate and report on the findings.

As this technology continues to grow and empower HR managers, it's the businesses that have invested in this innovative technology that will be able to recruit the best candidates and therefore push their company forward towards success.





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Additive manufacturing, aka 3D printing, will reach \$3.1 billion worldwide by 2016 and \$5.2 billion by 2020.”

- Forbes

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3D printing

We couldn't discuss future technological advances without at least mentioning 3D printers. The idea that a three dimensional item can be printed quickly and efficiently in the home or office has sparked a great deal of interest. Although the technology is in its infancy, it is growing at a phenomenal rate and breaking new ground everyday.

The manufacturing industry stands to be hugely affected by this innovative technology, but it's not alone. The automotive industry, consumer goods manufacturers, pharmaceutical firms and even the armed forces could all be effectively utilising this tech, even in its current state.

The potential uses for this technology are endless and trying to imagine the different ways it will fit into our professional lives in the future is a daunting task. But one thing is for sure, it will play a major role. As the technology progresses and prices drop, the equipment becomes more accessible to the common business and the potential for new uses grows exponentially.

According to Gartner, 3D printers can be a competitive advantage for companies that own them.

Helium hard drives

Increase storage capacity by 50%.

This solution is a combination of science and technology. In current hard drives, the discs (platters) which store the information spin at high speed within the casing. The fundamental issue with this is that within such a confined space, the air turbulence means that there is a maximum number of platters that can safely spin within the drive.

Thankfully then, HGST (a subsidiary of Western Digital) have created an ingenious solution. By replacing the air inside a hard drive with helium (a gas that is seven times less dense than air); the turbulence created when the platters spin is reduced. This means that more platters can be safely added within a standard 3.5-inch hard drive container. To ensure the gas doesn't escape, each drive is hermetically sealed (also making it completely waterproof).

The end result is that within a typical hard drive casing, HGST can now add more platters and provide 6 terabytes of storage – that's 50% more storage and it's even 23% more power efficient.

The likelihood is that this technology will not be entering the average PC anytime soon, but what it does offer is a solution to data centres and organisations with cold storage data (information that lays dormant but still needs to be accessible). So if your organisation has vast amounts of data/photos/customer information etc; it can now be stored in a smaller area whilst still remaining easily accessible.



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Don't get left behind

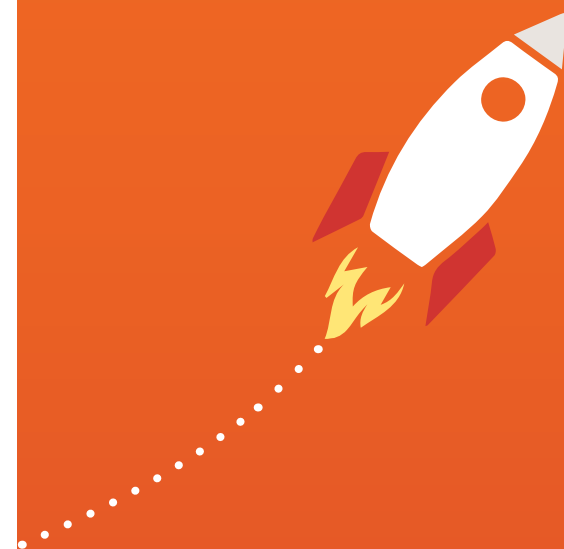
You're probably thinking that all the technology mentioned previously has been an interesting read, but it's largely irrelevant to your business at the present time; and to some extent you'd be right. But the purpose of this e-guide was not to talk about the present; it was to help you prepare your organisation for the future.

As desktop computers started becoming popular in the workplace during the late 1990s and early 2000s; most people were unaware that laptops would be outselling desktops worldwide by 2008. And even then, very few people would have expected tablets to outsell both desktop PCs and laptops by 2017 (which they are predicted to do).

The technology mentioned in this guide is about improving communication, efficiency, staffing and mobility within your workplace. And with the expected inherent benefits of these solutions it may not be a case of whether you can afford them; but whether you can still remain competitive without them.

We've discussed future technology, but that doesn't mean there isn't technology available today that will dramatically affect your bottom line too. You may not need a 3D printer yet, but you may need a new server; you may not need helium-filled hard drives, but you may need new high-end software. Either way, make sure you build the best case for budget allocation from your seniors. Look for funding options that present the least possible risk to your organisation.

To ensure you have all the assets you need to generate the best results without worrying about large initial outlays, tying up your capital, or the residual value of the equipment when it needs updating; consider asset finance.



To discuss transparent and collaborative asset finance options with an expert, simply contact us on 0845 643 1319 or contact@maxxia.co.uk