The next 10 years

The top tech trends of the future you need to be ready for

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About the author

James Tilbury, CEO, ILUX

James is a graduate in Computer Science specialising in software engineering. He has worked in various IT-related roles, including a global healthcare manufacturing business supporting the systems and infrastructure.

IT is part of James' DNA. His father was the founder of Tangerine Computer Systems who developed the TAN1648 VDU kit and the Microtan 65, a forefather of home computing in the late 70s.

James has worked around the world, both in a software development role and performing major infrastructure enhancements.

Having identified a need for enterprise-quality IT support and project management for SMEs, James founded ILUX to focus on IT supporting business growth.

The pace of change in tech has always been fast. According to many experts, we're going to experience more technological progress in the next 10 years than we did in the previous century. It can seem a little overwhelming when you are trying to run your business:

- Will/should you keep up?
- What's the right tech for your company to flourish?
- Will it be damaging if you don't adopt the right tech at the right time?

Or could this be the opportunity of a lifetime? The real challenge is knowing which changes will be most beneficial for your business.

This guide provides the lowdown on eight technologies that are getting the most interest and attention from investors and experts right now.

These are the emerging technologies that you're most likely to encounter in your business at some stage – and they look set to change the landscape of the workplace over the coming decade.

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As with anything in business, preparation is key, by learning about these technologies now you can be ready for the future.
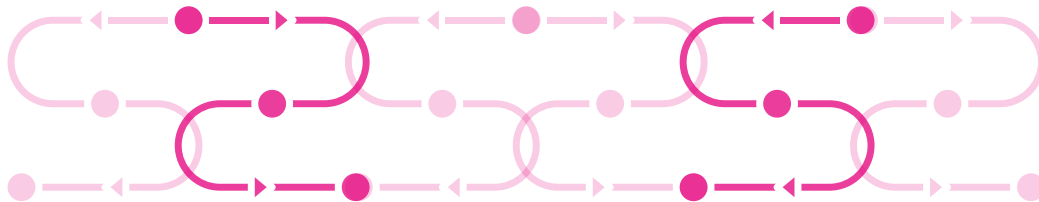
The trends to watch...

Process automation

We spend a lot of time recommending ways our clients can automate many of their processes. It can help to create more streamlined systems, increase productivity, and simply make some jobs less tedious.

Over the next couple of years, around half of all existing work activities could be automated. Next-level process automation is set to become the norm.

Process automation won't mean that robots will replace all your humans. You will start to see automated workflows delivering better and more timely communication.

It will allow automatic scheduling of resources based on skills, parts and location or more intelligence applied in the way your clients interact with your business via various channels

Connectivity

Digital connections are speeding up. We currently have 5G mobile connection (there's already talk of 6G), and the IoT (Internet of Things). These have huge potential to unlock greater economic activity.

By 2025, 4.3 billion new devices, from cars to computers, will connect using mobile technology. Mobile will continue to dominate the way we work and communicate.

In fact, mobility, healthcare, manufacturing, and retail could increase global GDP by as much as $2 trillion by 2030. By then up to 80% of the world's population could have 5G coverage.

5G and IoT are set to be some of the most-watched tech trends in the coming years.

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Cloud and edge technologies

It's estimated that as many as 70% of companies are already incorporating cloud and edge technologies as a crucial part of their IT infrastructure. That figure is set to grow year on year.

Cloud computing - where the processing is done away from your device, "in the cloud". An example is when you log into a browser. The browser doesn't do anything, it simply shows you the information.
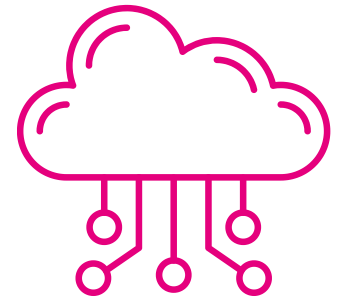
Edge computing - where the heavy processing is being done closer to where results are needed. For example, Netflix places servers closer to large groups of its subscribers as that speeds up video streaming times.

Has your business switched to cloud platforms as a way of running systems and storing data? If not, this should be one of your IT priorities for 2023.

Not only is cloud computing a good way to increase the speed and agility of your business, it reduces your hardware costs and also helps to improve your cyber security defences, protecting you from malware, data theft, and other breaches.

By 2025, 75% of enterprise-generated data will be processed by edge or cloud computing.

Next-gen computing and biometrics

Next Gen computing is a catch-all term that encompasses everything from quantum AI (Artificial Intelligence used to develop new algorithms for machine learning) to fully autonomous vehicles.

It might not be at the top of your priority list but it is coming and should be on your radar.

Your business may not be a 'first-wave industry' (that's things like finance, travel, and logistics) but you will, at some stage, adopt new technology like this.

This includes things like biometrics. By 2025, 75% of companies plan to ditch traditional passwords, which means using tools like facial recognition, retinal scanning, and signature identification.

We're already seeing these new, more advanced ways of logging into accounts with the recent introduction of Passkeys. They are predicted to take the reins from traditional passwords in the next few years.
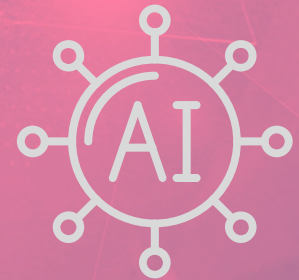
Artificial Intelligence

We've already touched on AI (Artificial Intelligence). It's technology we've seen being adopted everywhere over the past few years. For example, Alexa and Siri, popular forms of AI that many of us already use daily.

It's still early days for AI in many industries. It will become more advanced and be used to develop easier methods of training, and pattern recognition, which will help to further automate many of our business functions.

By 2024, AI-generated speech will be behind 50% of our interactions with computers. Many businesses are still trying to work out how to incorporate AI most efficiently to make a difference to their bottom line.

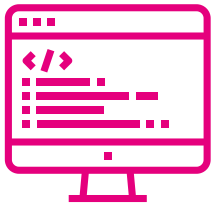But have no doubt, it's tech that will gradually change everything.

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The future of programming

Although you may not get directly involved with the programming of your apps and systems, the future of programming will have some form of impact on your business.

We'll see programming written by AI-driven applications, making software creation faster and more powerful. It also means that existing software and coding processes can become standardised and automated across entire businesses.

Overall, it's expected there will be a 30x reduction in the time it takes to create software and analytics.

Zero Trust architecture

Last year there were **4,145 publicly disclosed data breaches that exposed more than 22 billion records**.

Predictions are that it's only going to get worse. Realistically, we're looking at a 5% increase, even despite the advances in cyber security.

Cyber criminals are improving their tactics all the time, developing more and more sophisticated methods of hijacking our data and sensitive information.

Zero Trust architectures will become the standard approach to cyber security, especially for businesses.

It assumes every login and device as a potential threat until it's authenticated, validated, and authorised.

Clean tech

As the world moves towards reduced emissions and a lower environmental impact, so does technology and the businesses that use it.

Renewable energy, cleaner transport, and greater energy efficiency are all high on the future agenda. That means the costs of implementation will become lower as use becomes more widespread.

It will be increasingly important for your business to stay environmentally aware and this will become a deciding factor for new business, recruitment, and investment.

Advances in clean tech will mean that green energy can power the new technology you use, including high-powered computing.

By 2050, more than 75% of global energy will be produced by renewables.

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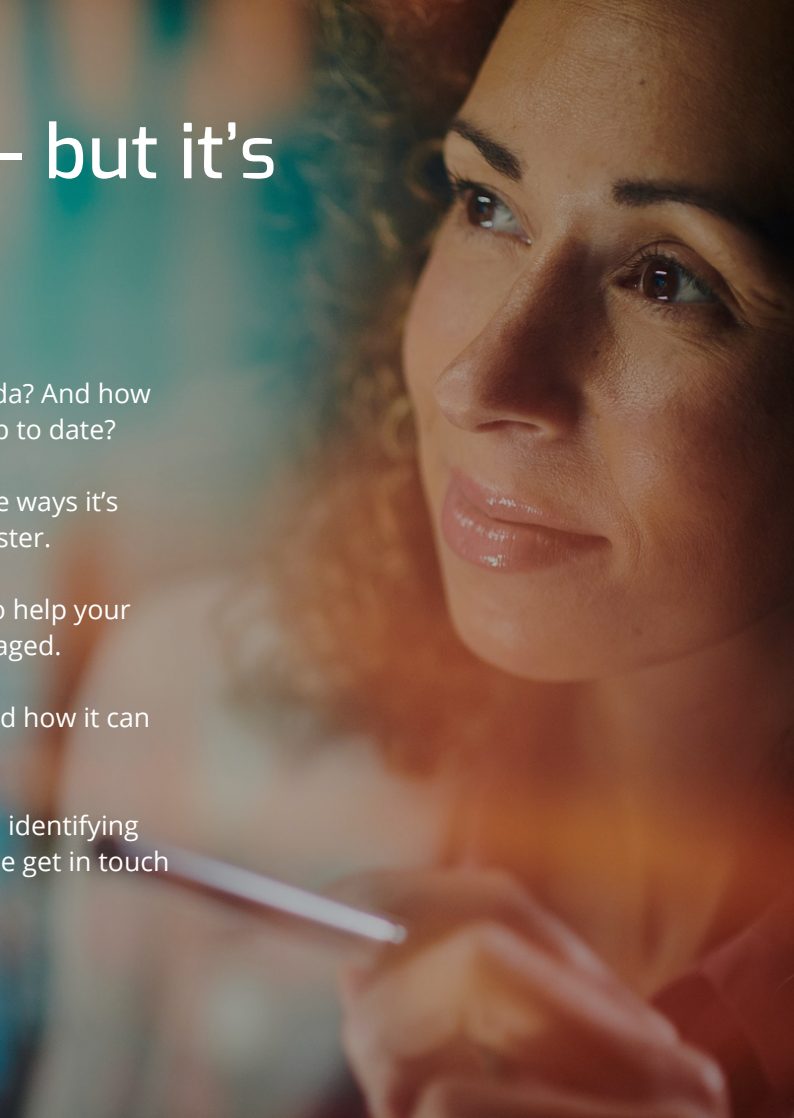# It may be daunting – but it's also exciting.

How many of these are already on your business agenda? And how much work do you need to do to keep your business up to date?

Start by thinking about your current technology and the ways it's helping to make your business processes easier and faster.

Then think about the ways you could further utilise it to help your team become more productive, happier and more engaged.

Our team keeps a constant eye on upcoming trends and how it can help businesses.

If you would like help reviewing your current setup and identifying opportunities to increase speed and productivity, please get in touch - we are here to help.

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