

5 Hot tech trends for 2015



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Every year the technology industry debates which technologies will 'breakthrough' in the coming year and become dominant trends that reshape industries and consumer behaviour.

Gartner recently released the Top 10 Strategic IT Trends for 2015 with a focus on strategic technology trends that will potentially significantly impact organisations within the next three years. Here, we've distilled the tech landscape into our top five trends for 2015. These are the innovations that we predict will gather pace and have the most impact.

3D printing

This trend is playing out in two arenas: firstly it changes the way that manufacturing and industrial companies are producing products, and secondly it extends the process of creating physical objects down to the everyman consumer.

As with things like computers and mobile phones, once prices drop to a certain point and these printers reach the hands of ordinary people on the street, the entire ecosystem surrounding that technology starts developing rapidly. The wave that has started building in the past couple of years will gather pace in 2015, taking us to the edge of a tipping point.

We expect that this wave will only break in 2017-2018 (when 3D printing becomes a mainstay of the middle-class home), but next year will see tremendous growth in awareness, prices starting to fall, and more applications for the service coming to the fore.

The key driver of the growth in 3D printing next year will be start-up companies that begin to offer highly specialist products - such as shoes, kid's toys, and sports and clothing accessories. These trailblazers will ignite our appetites for tailored, personalised products that can be produced with 3D printers.

Advanced, Pervasive, Invisible Analytics

Think back five years or so... then, the data that organisations analysed was purely 'internal data' within its own knowledge repositories and information-gathering systems (such as Customer Relationship Management systems). Business intelligence (BI) was introduced to interpret that data into useful insights that drove business strategy.

Today, more and more data about an organisation and its customers is being created in completely unstructured, organic ways, outside the borders of the organisation. The explosion of social media has meant that many customer conversations and insights have shifted to other platforms - outside the company. Now, with these nuggets of useful data hidden within the

sprawling mess of the broader the social web, the task is to find the key information and integrate it into the organisation.

The latest innovations in data modelling tools connect the unstructured external environment with the inner-workings of the organisation. Predictive intelligence tools are becoming ever more sophisticated and offer ways for forward-thinking organisations to position themselves for future customer needs.

The "personalisation" of security

For some time now, we've regarded cyber-security as an accepted feature of our working lives. Company-provisioned technology generally comes with a strong degree of security to protect sensitive corporate data, and keep employees safe from cyber-attacks. In our private lives, we realise the importance of anti-virus software, and take care when banking or shopping online.

In 2015, we will see the intensity of these threats stepping up a level. As more and more of our lives and our valuable possessions become digitised, the inevitable reality is that more cyber-crime opportunity is created. As we start adopting concepts like connected homes, personal clouds, and The Internet of Everything, the risks increase.

Suddenly, our home surveillance systems and personal wireless networks become vulnerable to attack. As we connect everything from our geyser thermostats to our cars, to our smart watches, we have to keep the entire chain of devices tightly secured.

Still on security, in 2015 we will also see things like mobile and contactless payments propelling biometrics into the centre of the technology world. Biometrics (particularly fingerprint biometrics) is certainly not a new technology, but with mobile access and mobile payments starting to become mainstream, biometrics finally has a strong use case to anchor its future adoption.

Computing everywhere (but, no 'computers')

As consumer electronics has rapidly advanced in recent years, and as connectivity costs have hurtled down, the scene is set for a new world of computing.

Firstly, this new world is characterised by smart devices (smartphones, tablets, wearables and other gadgets), and not traditional computers at all. Secondly, high-speed mobile broadband networks like HSDPA, LTE and Wi-Fi will be the primary forms of connection between individuals. Thirdly, the experience of these devices will be intuitive, simple and with a strong focus on the aesthetics and the user experience.

The emphasis on 2015, and beyond, is on serving the needs of these mobile users in diverse contexts and environments, as opposed to focusing on the sheer device capabilities alone. The new age of 'computing everywhere' will blur the lines between our capacities as private individuals, as professionals, employees, and engaged citizens such as (i.e. in Smart City initiatives), bringing a broad range of services to our smart devices in an instant.

Smart Machines

The concept of The Internet of Everything (also known as The Internet of Things) has been bubbling away for some time as a vague and ambiguous term that loosely refers to new devices being connected to IP networks.

Much of the potential of connected devices, or smart machines, hasn't been fully understood yet. Being able to arm your house or adjust the air conditioning from your cellphone - for instance - is essentially just enabling the remote operation of these tools.

The true power of smart machines is not that they are simply connected to us and to other devices. As they become digitised, they can capitalise on analytics and contextual awareness. Systems start to learn for themselves and act upon

those learnings. This form of precision 'intelligence' will meld beautifully with the creative mind of the humble human being creating new solutions to problems.

At some stage (though, perhaps not as early as 2015) we'll see the start of the adoption of things like autonomous vehicles, advanced robots, virtual personal assistants and smart advisors. Potentially, over time, this technology theme will prove to be the most disruptive of them all.

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ABOUT SAURABH KUMAR

Managing Director at In2IT Technologies South Africa

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