Deloitte.

The Deloitte Consumer Review

Digital Predictions 2016

Contents

Foreword

Welcome to the latest edition of the **Deloitte Consumer Review.**

In this report we look at how six digital technology trends will accelerate disruption in the consumer market in 2016. In doing this we draw upon our 15th annual Technology, Media & Telecommunications Predictions report and consider the implications for consumers and the businesses that serve them.

The consumer market continues to be disrupted by consumers' usage of an expanding range of ever more powerful, faster connected and better specified digital devices. The rate of disruption is still accelerating, as wave after wave of new technologies emerge and begin to impact and transform consumer behaviour.

In recent years, the growth of social media and the advance of mobile payment technologies has changed the way that many consumers select and pay for products and services. Advances in robotics have made it possible for retailers to deliver goods to consumers more quickly and at a lower cost through the development of more automated warehouses.

And cognitive technologies are helping consumer businesses collect and analyse vast amounts of transactional and behavioural data, to help develop their pricing and marketing strategies, and optimise their workforce and real estate.

In this report we focus on what we believe will be key digital consumer trends for 2016 and look at how they are likely to impact the consumer business sector:

1. **Cognitive technology**
2. **Gigabit internet**
3. **Virtual reality**
4. **Post-PC generation**
5. **Touch-commerce**
6. **Photo-sharing**

We hope this report gives you the insight and data to enhance your understanding of the opportunities and challenges in your sector, and welcome your feedback.

Nigel Wixcey
Lead Partner, Consumer & Industrial Products
Deloitte LLP

At a glance

Cognitive technology to drive customer experience revolution?

By the end of 2016, more than *80* of the world's 100 largest enterprise software companies will have *integrated cognitive* technologies into their products…

…a *25% increase* on 2015.

Improving the customer experience is something every consumer business wants to do in 2016, and cognitive technologies provide several new ways of doing this.

Virtual reality – niche for consumers but big for business?

A niche product for consumers for now, but potentially a powerful tool for businesses looking to create more immersive experiences for consumers and staff.

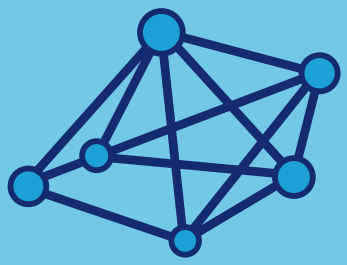
2016 will be the industry's *first billion* dollar year, with 2.5 million virtual reality headsets to be sold in 2016.

Touch commerce to drive a new wave of m-commerce growth?

The number of people using a touch-based payment service on their mobile devices will increase by *150%* to *50 million* users in 2016.

A significant step forward for the mobile payment industry – but will it drive a new wave of m-commerce growth?

Consumer businesses will need to think and act more like media companies



The number of gigabit per second connections will surge to *10 million* by the end of 2016 – a ten-fold increase on 2015.

Around *70%* of these will be residential connections and will grow until *600 million* subscribers are on a gigabit tariff in 2020.

Increasing connectivity will fuel the use of rich media and the development of content led consumer engagement strategies.

Mobile first but don't underestimate the role of PCs/laptops still play

Mobile devices are crucial for the younger consumers who will form the next cohort of shoppers, but so are desktop PCs.

Young shoppers[1] now and in the future are likely to use both PC and mobile in a complementary way.

Research predicts that trailing millennial consumers – *18-to-24* year olds – are likely to be *the most pro-PC of all age groups in 2016.*

Photo-sharing: commerce finally goes social?

In 2016, Instagram will hit *half a billion* global users, up from 10 million five years ago.

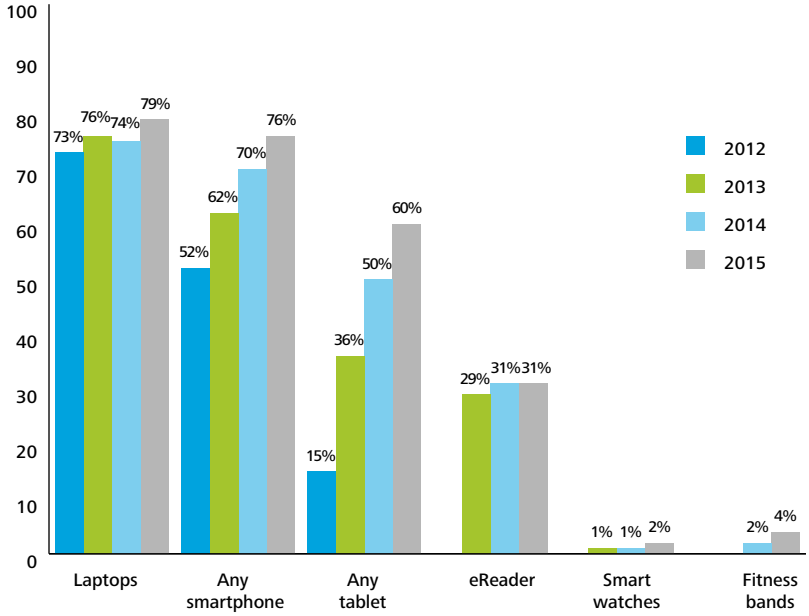
The growth of these new platforms has created opportunities for consumer businesses, but also challenges them to develop new digital marketing skills.

Digital technology and the consumer

In this section we look at how the adoption of digital technologies continues to drive a revolution in the way consumers interact with each other and engage with the companies serving them.

The digital revolution is being driven by three trends: increasing digital device ownership, faster connectivity speeds and changing consumer behaviour.

Figure 1. UK digital devices owned or accessed



Source: Uk edition, Deloitte member firms' Global Mobile Consumer Survey, May–Jun 2015
Base: All UK respondents, n=4,000

More and more digital devices

According to Deloitte research, 76 per cent of UK consumers now own or have access to a smartphone and 60 per cent own or have access to a tablet.[1]
At the same time, ownership of laptops and PCs has increased. Laptops in particularly remain important devices, particularly when it comes to shopping online or consuming digital media.

The number and range of digital connected devices is also increasing. Wearable technology, such as smart fitness wristbands and watches, as well as connected devices for the home such as smart appliances and smart TVs are all increasing in popularity, although many remain niche products for now.

The digital revolution is being driven by three trends: increasing digital device ownership, faster connectivity speeds and changing consumer behaviour.

Increasing connectivity

The average UK household owned 7.4 connected devices in 2015.[2] As the number of connected devices has increased so have consumers' demands for faster connection speeds. This has fuelled a rapid uptake of 4G mobile services and faster fixed-line broadband connections. An increase in the number of connected devices we each own means that we are conducting more and more of our lives online. In fact the average UK consumer now spends double the amount of time online than they did ten years ago.[3]

The emergence of a number of products for the connected home, such as smart appliances, smart TVs and games consoles will continue to drive consumer interest in faster connections.

Changing consumer behaviour

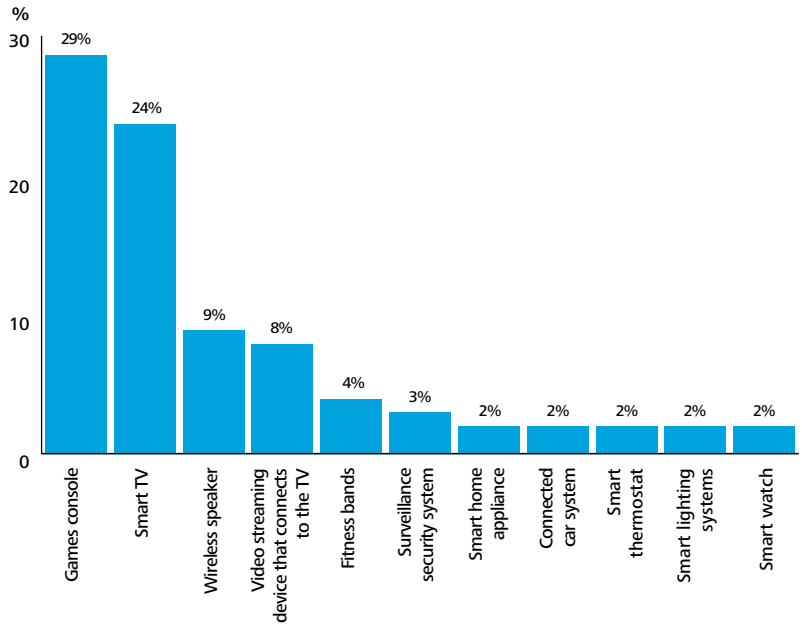
Digital technologies are also changing the way that consumers buy and consume many products and services. They have given consumers more power to manage their everyday lives, by allowing them to book taxis, restaurants and travel tickets at the click of a button, and to order products, arrange delivery and share their experiences directly from their smartphones.

Consumers increasingly expect to be able to dictate when, where and how they engage with brands. They are spending an increasing amount of time on social media platforms and are exposed to more influences, which in many cases are having an impact on their purchase decisions.

Consumer businesses need to be present on these platforms in order to ensure that they remain relevant to consumers. Facebook, Instagram and Pinterest are all introducing features such as 'buy buttons' that make it easier for consumers to purchase products and services without leaving their website, moving from browse to buy in seconds.[4]

Social media is also playing an increasingly important role in offline purchases. Deloitte research suggests that social media influences 33 per cent of in-store purchases.[5]

Figure 2. Other connected devices adopted by adults in the UK



Source: UK edition, Deloitte member firms' Global Mobile Consumer Survey, May-Jun 2015
Base: All UK respondents, n=4,000

The fourth industrial revolution

The theme of the recent World Economic Forum at Davos was "The Fourth Industrial Revolution".[6] It focused on key technology disruptors that would drive the next industrial revolution including, the Internet of Things, robotics, virtual reality, 3-D printing, cognitive technology, biometrics and faster connectivity.

The discussions at Davos highlight that the subject of digital disruption is rising up the agenda of global political and business leaders. This reinforces our view that understanding how these trends are developing and will continue to develop remains a key differentiator among consumer businesses.

Cognitive technology to drive customer experience revolution?

Cognitive technology to drive customer experience revolution?

Improving the customer experience is something every consumer business wants to do in 2016, and cognitive technologies provide several new ways of doing this.

From electrical appliances that turn on when their owners tell them to, to make-up apps that help consumers choose the right shade using facial recognition, cognitive technologies are changing the way businesses interact with their customers.

This year will be an important one for cognitive technologies. Deloitte predicts that by the end of 2016 more than 80 of the world's 100 largest enterprise software companies (by revenue) will have integrated cognitive technologies into their products, a 25 per cent increase on 2015.[7] By 2020, Deloitte expects about 95 per cent of the top 100 will have done so.

The concept spans a wide range of possible technologies, but in 2016 Deloitte expects machine learning, natural language processing (NLP), and speech recognition to be of particular note.

What are the potential applications?

Cognitive technologies make it possible to improve the customer experience dramatically. They can make buying or using a product or service more convenient, by increasing a consumer's confidence in the product he or she is buying, or by developing his emotional connection with a brand.

For example, voice recognition technology is already being used by a number of consumer-facing businesses. For several years, people have become accustomed to using services like Apple's Siri and the Google Now virtual assistant to ask questions and receive answers about available products and services, from where they can buy a particular item to what will the weather be like today?

Amazon has launched a number of artificial intelligence based devices. It started with the Amazon Dash device, which allows shoppers to add products to a shopping list or order them directly, either by scanning the bar codes or by speaking into the device.[8] There is an opportunity for grocery retailers to add a similar feature to their mobile apps, to make it easier to add items to weekly shopping lists. Making it easier for customers to shop with you increases loyalty and reduces the likelihood of them going elsewhere.

Amazon has also launched Amazon Echo, a voice activated speaker which can be used to order anything – not just its own products – so it could be used to summon an Uber car or order a pizza.[9] It can also be linked to other devices in the house and used to perform tasks such as turning off lights or setting an oven timer – all controlled by the user speaking to the Echo device.

Companies are starting to use voice recognition in customer service, launching online assistants that deal with basic customer queries at a much reduced cost compared to traditional call centres.

Coca Cola used voice recognition to launch its virtual assistant 'Chip' in 2014.[10] It uses natural language understanding to replicate human conversation, and responds to 30,000 customer queries per month at the MyCokeRewards.com site. Google Now aims to anticipate a user's need for information and provide it before being asked. Internet service provider Windsteam, meanwhile, has launched 'Wendy' to help provide immediate support.[11]

What are cognitive technologies?

Cognitive technologies are those that perform tasks that have formerly only been achievable by humans. Speech recognition software can listen and respond to speech, while machine learning software does not just analyse large data sets that were previously incomprehensible, but improves its own algorithms as it learns more about the data. Natural language processing, meanwhile, is the ability of computers to work with text in the same way humans do. This means the software can extract meaning from text, or even generate it. Social network Twitter, for instance, uses this sort of software to understand when and why users post about particular TV shows and TV ads.

Pizza chain Dominos is using voice recognition and natural language processing in its app to enable customers to speak to a virtual assistant named Dom, instead of searching for what they want.[12] The aim is to increase revenue by making ordering simpler.

Another area where there is potential is in the creation of products such as voice-enabled washing machines, which perform most of the smaller tasks involved in washing, allowing users simply to put clothes in them and tell them to start washing. The machine itself will put in the detergent and choose the right setting, based on the weight of the washing and what it sees when it scans it.[13]

Some car manufacturers have emerged as leaders in the use of cognitive technologies over the last five years. For example, General Motors is testing the use of computer vision to determine whether a driver is distracted or not looking at the road enough.[14]

Automation and machine learning

Machine learning software involves the use of advanced analytics, crunching data to perform tasks such as predicting demand in order to optimise price and stock levels. It is also used in creating personalised homepages based on a customer's likes and dislikes as gleaned from emails or social media use.

Machine learning software isn't new, but the thinking around it is changing. Conversations about 'big data' are waning, and instead a new approach to analytics is emerging. Machine learning algorithms are increasingly being seen as a tool for solving business problems that have always existed – such as how many units of a product to make, what products a particular range should consist of, and how to make sure a shopper finds what she wants. There are few strong examples of this technology in the consumer business industry at the moment, but as the attitude towards it changes and businesses start to see data analytics as a powerful problem-solving tool rather than as something they need to tick off the digital list, interesting uses of the concept will start to emerge.

Machine learning software isn't new, but the thinking around it is changing. Conversations about 'big data' are waning, and instead a new approach to analytics is emerging.

Virtual reality – niche for consumers but big for business?

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Virtual reality may still be in the early stages of its commercialisation and development, but it has reached a pivotal point. Deloitte predicts that 2016 will be the industry's first billion dollar year.

Around 2.5m virtual reality (VR) headsets are expected to be sold in 2016, and around ten million copies of VR games. Most of the activity this year will be in the computer games sector, but there are some uses of VR already creeping into the consumer industry.

Possible uses for consumer businesses

The coming year will involve more experimentation for consumer-facing businesses, with some companies trying out the technology to see how and where it could be used.

VR has much potential when it comes to giving a remote consumer a detailed idea of what a physical space or product looks like. Hotels, for instance, can produce virtual reality tours of their properties and rooms.[15] Some travel operators have already tried producing similar content for packaged holidays or to show shoppers particular resorts or beaches to help them make a decision.[16] Meanwhile car companies are using the technology to give detailed tours of the interior and exterior of cars without having a model in the showroom. In addition, they are using it to help them develop autonomous vehicles, and in the manufacturing process for current models.[17]

VR technology also has potential uses in marketing and brand building. A number of consumer companies have already developed VR content. Nestlé, for instance, teamed up with Google to create a virtual reality experience which transported users to Brazil's coffee fields as part of the marketing for its Nescafé brand. Viewers needed to download the Nescafé 360 app before putting their phone into a Google Cardboard virtual reality viewer. They could then turn their heads in any direction to experience the coffee fields via the app.

UK fashion retailer Topshop used Facebook-owned Oculus Rift headsets in its Oxford Street store in London to help generate excitement and interest around its autumn/winter 2014 Topshop Unique London Fashion Week show. The show was livestreamed from the Turbine Hall at the Tate Modern and customers at the store could watch the show as if from the front row, as well as see backstage action and VIP arrivals.

What is virtual reality?

Virtual reality is the use of a computer-simulated 3D environment that makes the user feel as though they are in a completely different place or situation to the one they are actually in. It involves the use of headsets that have either been custom-built to create an immersive 3D experience, or that use mobile phones slotted into a device and held close to the user's face.

There are likely to be two main types of VR device in 2016: 'full feature' and 'mobile'. The former incorporates high resolution screens and will cost about $350 to $550 and generate up to 1.75 million unit sales in 2016. 'Mobile VR' incorporates a high-end smartphone's screen into a special case, enabling the headset to fit more-or-less snugly on the user's head. This is likely to cost from $100 and sell at least half a million units in 2016.

VR cardboard kits are also available. These have the virtue of being low cost, often less than $10 and are frequently given away.[19]

Virtual reality hardware offers visual (and sometimes audio) immersion via a head-mounted display. Sensors in the headset track the user's movements and change the user's view accordingly. A VR version of scuba diving allows you to feel as if real fish are swimming towards you.[20] If you look up, you see a realistically rendered sky. When you glance down, you are shown the ocean floor. The soundtrack adjusts accordingly, enhancing the perception of being elsewhere.[21]

VR content can be created using CGI (computer generated imagery) or filmed using special clusters of cameras that collectively capture a 360-degree field of view. In playback, the user is shown different aspects of the images captured, depending on where he or she is looking. The development of affordable mobile 360-degree cameras and the ability to stream 360-degree content on YouTube are likely to increase the availability of content for VR in the next ten years.[22]

There is also potential for VR technology to have an impact in the furniture and homewares category. In September 2015, Marks & Spencer launched its new Loft homewares range using virtual reality technology, allowing consumers to use Oculus Rift headsets and Leap Motion technology to drag and drop virtual homeware items into their ideal living space.

One grocery retailer has used VR to improve merchandising and range reviews. Large screens with images of the shelves and products in a particular store are used to try more combinations of products during range reviews, typically cutting the amount of time reviews take by a third. Suppliers now only have to send images of products instead of the products themselves for the reviews, and dozens of fixtures can be built virtually instead of a limited number of actual fixtures.[18]

Other retailers use VR to create virtual stores that are then used to plan real store layouts.

Where could virtual reality go in the future?

It is possible to get an idea of where things might be heading by looking at companies such as start-up Trillennium. The company has attracted investment from online fashion retailer ASOS, and specialises in building 3D virtual shopping environments. It has created an online shopping platform that looks exactly like a store. Wearing a VR headset users feel as though they are shopping in a normal store without having to leave their homes, and with access to a wider range.

The platform is aimed at young, 20-something shoppers and the goal is to provide something completely immersive, which also connects with social networks so shoppers can ask friends for immediate advice and opinions.

Multichannel retailers could use VR to draw shoppers into stores and spark interest once they are inside using new technologies such as the ModiFace Mirror which offers 3D make-up tutorials. However, consumers are likely to reject applications of VR technology where the content or interface is not good enough and there are still a number of issues to be resolved with the technology.

Potential issues

There are several usability issues with current VR technology that may in the long term offset the undeniable attractions of being transported to another time and place. For example, the headsets are large and cumbersome, relatively expensive and often only work with powerful PCs which most consumers do not own.

It is important to remember that recent breakthrough technologies that required consumers to wear something on their face have not proven to be mass market successes. Using the technology may require a set of behavioural changes, the most apparent of which is wearing a large headset, which the majority of people do not want to make.

Case study – McDonald's Happy Meal

McDonald's announced in early 2016, that it has used virtual reality to create a children's game for Happy Meal customers.

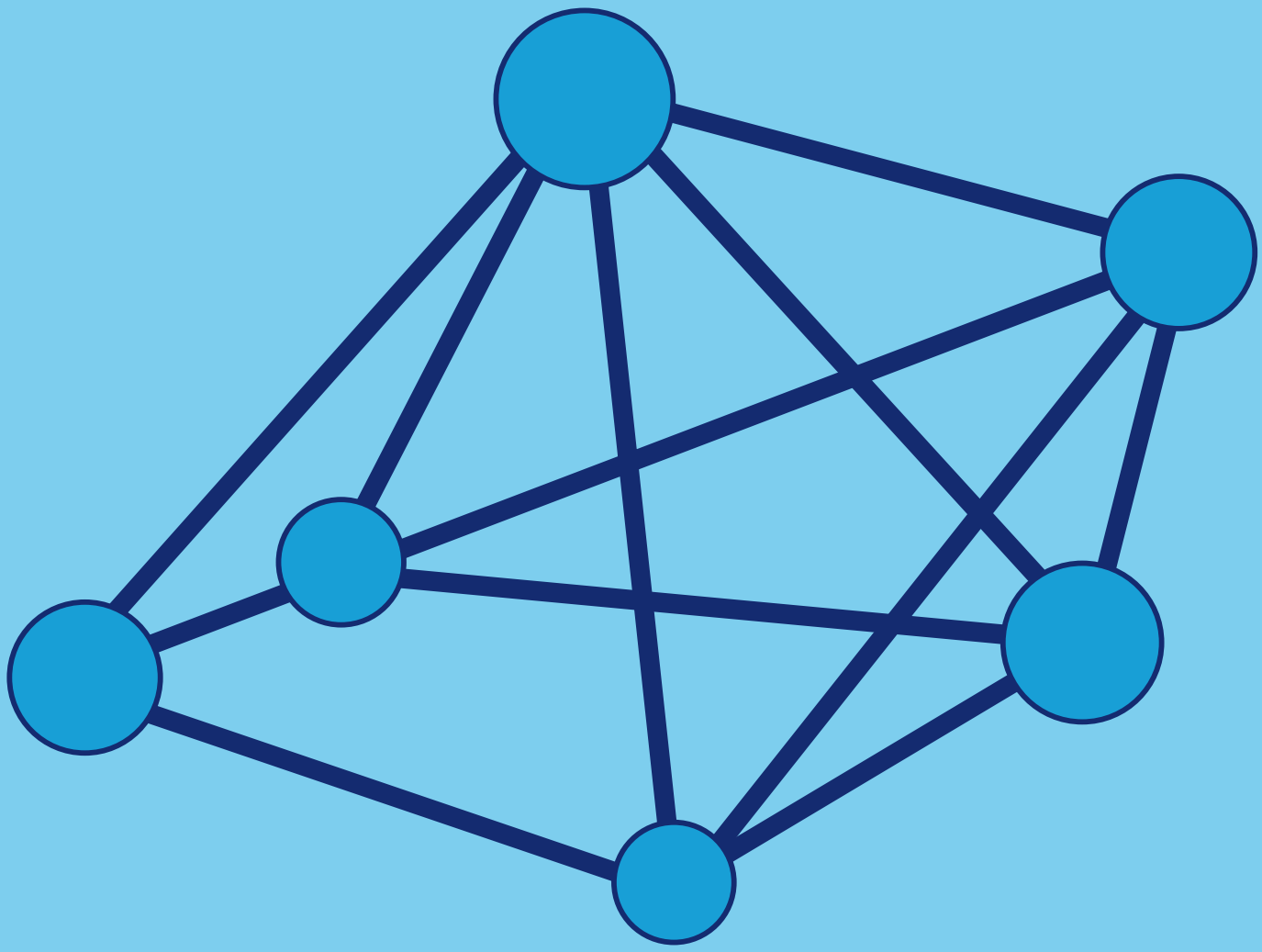
The project allows children to fold their Happy Meal boxes into cardboard virtual reality glasses. They can then download a virtual reality game on to their mobile phones and use the headset to play it.

The trial service is on offer in 14 restaurants in Sweden between March 5th and March 12th 2016. McDonald's has also created the game itself – Slope Stars designed to be played on a smartphone slotted into the front of the headset.

This trial although limited to a small number of stores in a single market, shows how VR can be built into services and products that consumers already use.

Around 2.5m virtual reality headsets are expected to be sold in 2016

Connectivity gets an upgrade?



Connectivity gets an upgrade?

Deloitte predicts that the number of Gigabit per second connections will surge to ten million by the end of 2016 – a tenfold increase on 2015.

Around 70 per cent of these will be residential connections, and this rate of growth will continue until around 600 million subscribers – the majority of connected homes in the world – are on a Gigabit tariff in 2020.

A Gigabit per second Internet connection might appear frivolous, but a decade ago some commentators may have questioned the need for a touchscreen-based device capable of transmitting data at 150Mbits per second, with storage for tens of thousands of HD photos, video quality sufficient for broadcast, a pixel density superior to most TV sets, a secure fingerprint reader, and billions of transistors within a 64-bit octa-core processor. Yet modern smartphones with this specification are likely to sell in the hundreds of millions of units this year.

The most important point for consumer businesses to recognise is that Gigabit Internet makes many things possible that previously would not have been. It is the very unpredictability of what Gigabit speeds could enable that makes them relevant to consumer-facing companies.

There are a few elements of the online experience that can be expected to improve in the short term. Faster loading websites mean richer content, with improvements being easily achievable for all forms of content including pictures, video and audio.

The barriers between consumer businesses and media companies will continue to blur as the constraints on producing high quality content are removed. Companies will need to become even more adept at producing content of all kinds, and this does not just mean strong editorial content, but high quality product images as well.

Consumers will expect an overall richer experience online, and web designers will be able to make use of more imaginative aspects of content, including interactive elements or games. Companies will need to closely monitor how users react to new ideas to get an early indication of what Gigabit broadband-enabled services and innovations will elicit the most positive response. As a starting point, companies should ask whether they should be creating more video – whether editorial content or of products – and whether more product photographs should be provided.

Gigabit broadband will also help to facilitate the introduction of other new technologies such as virtual reality and the Internet of Things. Higher broadband speeds will provide consumers with the tools necessary to run more devices, particularly VR headsets, which need large amounts of processing power. As more consumers gain access to Gigabit Internet it will be a critical time for these new technologies and ideas: if shoppers do not see the benefits of connected fridges and immersive 3D experiences once they have the Internet connectivity speeds required to make them possible, these technologies are unlikely to move into the mainstream.

Gigabit broadband could also overhaul the way television is consumed, as well as the way television adverts are presented. Sky already uses data to personalise the adverts each viewer sees, and the use of targeted TV ads is likely to continue growing. The earliest incarnations will segment consumers based on where they live and provide them with regional advertising, but other datasets will also eventually be used, such as household income data or even an individual's shopping history.

Case study – Amazon X-Ray

Amazon X-Ray is the company's reference tool that readers and viewers can use on tablets and mobile devices, and while watching TV or movies on Amazon Prime Instant.

At the moment, it is used to provide viewers of TV shows and films on Amazon Prime Instant (its video-on-demand service) with information about actors in the shows or the background music being played.

X-Ray currently does not connect to the Internet to get this information but instead uses pre-loaded files with existing information. Its information on actors and their backgrounds comes from IMDB.[23]

In the future, we expect this service to develop into something that uses an Internet connection, and where information is provided on products, such as a particular dress a character is wearing, and where they could be purchased. It is this sort of service – the ability to shop directly from TV shows and movies – that Gigabit broadband could enable.

Case study – Sky

Sky is working on bringing data-driven insights to the world of television ads.

Sky launched its AdSmart product in 2014, allowing brands to tailor their advertising, only showing an ad to particular regions or even particular postcodes. The service uses publically available data, such as household income data, to help it determine which areas would suit which ads. In one example in summer 2015, allergy brand Piriteze targeted hay fever sufferers by only showing their ads in areas where there was a known high pollen count.[24]

The service can also provide insight on how many people shopped at a particular retailer after seeing an ad.

The growth of people watching TV online or via connected TVs – which is likely to increase as Gigabit broadband becomes more available – means that Sky and other broadcasters may increasingly be able to use viewers' browsing history to help inform which ads are shown to them. Eventually, each viewer might even see different ads in every TV show break, based on their favourite brands.

Gigabit broadband is also likely to make maintaining and developing mobile apps easier. Apps can be updated quickly and easily when connected to Wi-Fi, and will be able to hold more data as processing speeds improve. In addition, communication is likely to evolve and companies should expect their online interactions with their customers to become more immediate.

Gigabit broadband is also likely to facilitate closer links between content and commerce. Amazon X-ray gives an idea of how this could work (see box).

The companies most likely to benefit from Gigabit broadband will be those for whom a premium online experience is important. Luxury brands in a range of sectors, from automotive to retail to hotels and travel, will be keen to make the most of the opportunities Gigabit broadband presents. Whether it is a virtual reality tour of a holiday destination, a new car, or an in-depth look at how a fashion item was made, consumers often want more information before making a decision. Many luxury players have been slow off the mark with their online offerings, in part because the current infrastructure does not allow them to recreate the quality of their in-store experience online.

Burberry is a long-term leader in the use of digital technology. Back in 2011 it was live-streaming its fashion shows in order to open them up to the general public, and allowing shoppers including those on the front row to order clothes direct from the catwalk show they were watching. It is this sort of experience, both online and across channels that we can expect to see more of as Gigabit broadband takes hold.

Touch commerce to drive a new wave of m-commerce growth?

Touch commerce to drive a new wave of m-commerce growth?

In 2016, Deloitte predicts that the number of people who use a touch-based payment service to make a purchase on their mobile devices will increase by 150 per cent to 50 million users globally.

Fingerprint authentication of payment provides a solution for one of the main barriers to the growth of mobile commerce, namely that consumers are reluctant to spend time entering payment and delivery information into small screens while on the go. This reluctance is reflected in the usage statistics for mobile shopping.

Deloitte member firm research found that as of mid-2015 about a third of respondents in developed markets browsed shopping websites and apps on a weekly basis, but only nine per cent made a purchase.

The current mobile shopping experience in many cases can be slow and cumbersome. At the launch of Apple Pay one merchant reported that the checkout process (for in app payment) via their legacy app required 103 seconds for customers to type in their full credit card and shipping information; third-party touch payment reduced this to just 17 seconds.[25]

Mobile sales are still growing rapidly, despite the current clunky user experience.[26] If the user experience issues can be resolved, growth could be boosted further.

There is a potential problem with fingerprint technology in that it is designed to work in an app environment. Most consumer businesses, however, rely heavily on their mobile websites for mobile sales – some have even publically stated that apps are a waste of time. Nish Kukadia, founder of fashion flash sales site Secretsales.com, said at an event in 2015: "Building an app was just going to slow us down, so we went down the road of a responsive mobile site."[27] This is despite the fact that the retailer generates approximately 60 per cent of its revenue through mobile.

Many shoppers still use Google when buying online, making the mobile website their first interaction with a brand. In addition, consumers are increasingly reticent to download apps unless they use them regularly enough to justify the storage space required on their phones.

This means that even if fingerprint payment does take off, and despite the fact that the cost of memory on smartphones is falling, consumer businesses still need to devote time and effort to improving the payment process on a mobile website and cannot completely rely on in-app touch payment.

For this reason, a completely effective mobile payment strategy will need to include easy ways to pay on mobile-optimised sites as well as on mobile apps. For instance, online grocer Ocado has said that PayPal helped to boost its mobile sales, which in 2015 were over 50 per cent of its total sales. If retailers accept digital wallets – software services which save users' bank details and can be used at any retailer – in addition to Apple Pay, more consumers will be able access to speedy checkout processes.

More payment providers have started to roll out 'one click' services. PayPal launched its One Touch platform in the UK in June 2015, enabling shoppers to pay for goods in a couple of clicks without having to enter their PayPal password.

The increasingly widespread use of fingerprint technology is a significant step for the payment industry, and in conjunction with other payment innovations, it could provide a boost to mobile sales in 2016 and help to increase mobile payments in stores.

There are some limitations, for example many store purchases paid for by contactless cards or mobile phones cannot exceed £30. Consumer perceptions of security may also be a sticking point.

However, it should be noted that mobile phone in-store payments are actually more secure than cards because they require the shopper's fingerprint as a form of authentication.

Mobile first?

Mobile first?

While mobile devices are crucial for the younger consumers who will form the next cohort of shoppers, so are desktop PCs.

In 2015, 90 per cent of UK 18 to 24 year olds owned smartphones, but laptops were only just behind with 86 per cent also owning one.[28]

Rather than mobiles replacing PCs, as many expected, young shoppers now and in the future are likely to use both mobile devices and PCs in a complementary way. In fact, research by Deloitte predicts that trailing millennials – consumers who are 18-to-24-years old – are likely to be the most pro-PC of all age groups in 2016.

With smartphones growing at such a fast pace it would be reasonable to expect laptop ownership to decline, especially among tech-savvy young shoppers. However, this is not the case: according to research by Deloitte member firms, on average more than 85 per cent of trailing millennials in 13 developed countries had access to a laptop in 2015.

Laptops' role

Laptops are more affordable than they once were, with many devices available for less than £400. The bigger screens and larger keyboards make it easier to complete more complex tasks, which is ensuring that laptops still have a place in many young people's lives.

Moreover, consumers are choosing their laptops over their smartphones in a variety of situations. A 2014 survey of US shoppers aged 19-33 years old showed that they prefer using their computer to check product details or availability, and also to make the actual purchase.[29] Nearly two-thirds stated they prefer to buy using their PC, with about 40 per cent using their smartphone or tablet.

It is not just the PC's role in the purchasing journey that will secure its future. A certain level of laptop ownership is likely to continue because consumers need them for school or work, and for accessing and managing stored media such as photos and music. For many consumers, they are also emerging as a preferred device for watching TV shows and films.

Mobile's role

Retailers whose customers are aged 18-24 help illustrate how young people are using different devices. At fashion e-retailer ASOS, for example, mobile accounts for 58 per cent of traffic but only 44 per cent of orders, suggesting that shoppers are often using mobile to browse before transferring to their PCs to check out.

In a 2015 Deloitte US survey, 18-24 year olds said they are likely to use their mobiles to find the location of stores, browse online and compare prices, but only around 39 per cent currently use their smartphones for purchases. However, this is likely to change as the gap between mobile traffic and mobile sales is narrowing quickly.[30]

This trend is likely to develop further as retailers and brands continue to make mobile transactions easier. A high proportion of sales could be processed via mobile once this process has been streamlined.

The proportion of mobile sales at some retailers has already started to grow. At online grocer Ocado, for example, sales completed on a mobile are already over 50 per cent of the total. Ocado says in its 2015 annual report that introducing PayPal at checkout has made a big difference, especially for new shoppers. Grocery is also a category where there is a high number of repeat purchases and where customers use their phones throughout the week to add to their grocery lists.

The mix

The eventual mix of mobile and desktop sales is likely to be category dependent. PCs will remain particularly relevant for any product that can require more research, such as holidays or more expensive items. In categories such as groceries, once delivery and payment details are saved, the customer may move to a mobile device or use desktop and mobile devices interchangeably.

But in every category, retailers, leisure operators and consumer product companies should be wary of neglecting PCs in their e-commerce strategies and companies should also avoid focusing only on mobile. Instead, they should adopt a strategy and online proposition that weaves in different devices at the correct stage of the customer journey.

Customers already use mobile and PCs in a complementary manner, and this should be reflected in the way businesses design their websites and web-based services. It should be easy, for instance, for customers to switch quickly between the two, and for a shopper's account to be saved and replicated across the two different devices.

The different features that customers enjoy on each device – the large photos and videos on a PC, and the speed and convenience on a mobile – should be the focus in each case, with services for each device designed slightly differently according to customer use.

Case study – ASOS

The core consumers of fashion e-retailer ASOS are aged 18 to 34, which means that there is pressure to react quickly to new technologies.

As such, it has focused on developing its mobile offering, saying in its 2015 annual report that "Mobile is increasingly our customers' platform of choice". Mobile became so important to the business over the 2015 financial year that the company wrote off £4.9 million worth of IT projects to refocus its checkout review project on mobile optimisation.

In October 2015 ASOS said that it was planning to roll out new mobile checkout functionality in 2016, and has already rolled out touch payment functionality, using Apple Pay.[31]

However, while mobile transactions are growing, its desktop site still accounts for the bulk of orders.

The desktop website remains important for much of the richer content for which ASOS has become well known. This includes high quality product images, catwalk videos, live chat, as well as the editorial content it produces. In addition, its conversion rate on desktops remains higher than on mobiles.

Photo-sharing: commerce finally goes social?

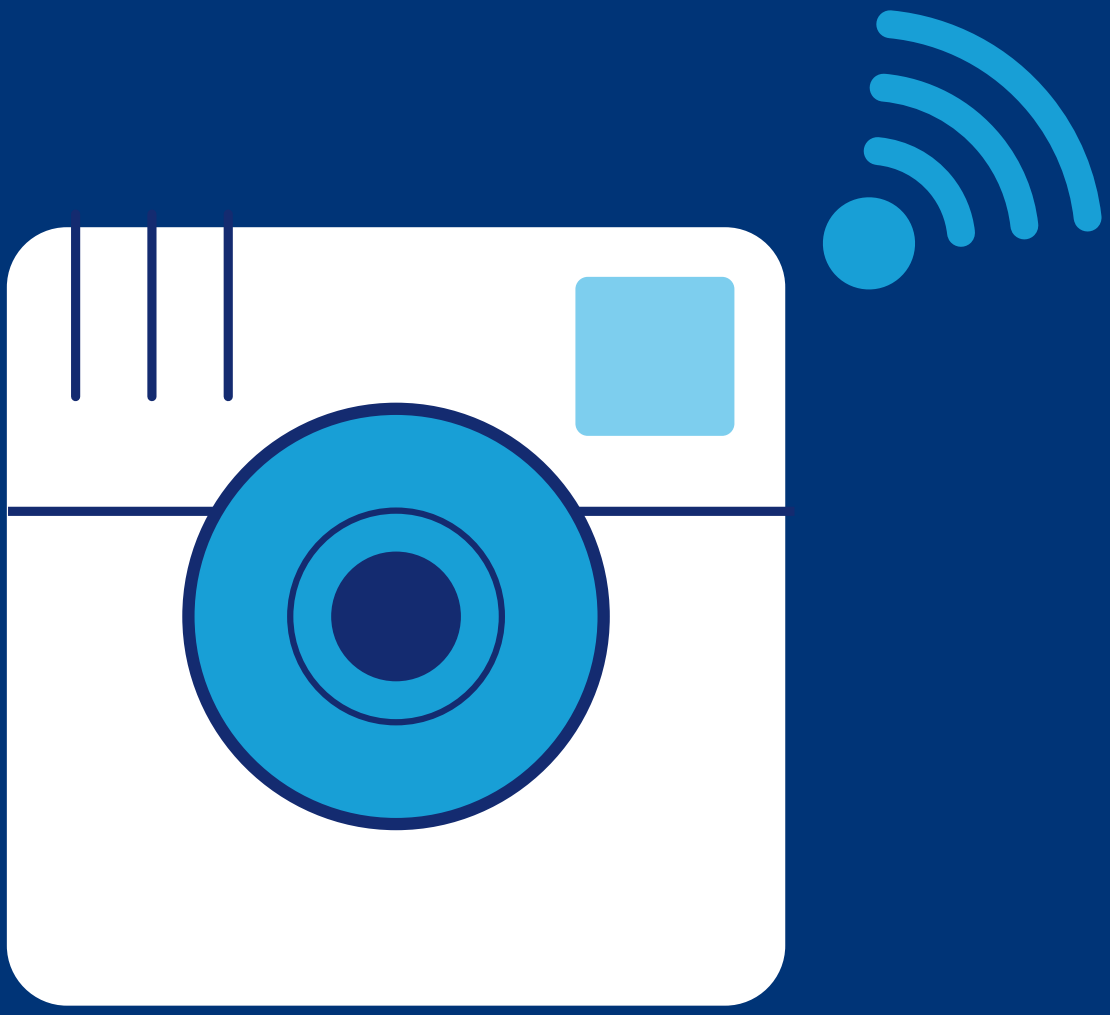


Photo-sharing: commerce finally goes social?

It is only necessary to look at the growth of Instagram to understand how important photographs have become to online communication.

In 2016 Instagram will likely hit half a billion global users, up from ten million just five years ago. Its rate of growth is also increasing – it went from 300 million users in December 2014 to 400 million in September 2015, adding 100 million in under a year.

Social media use continues to grow, especially among younger consumers, and as consumers spend more of their time on these sites, brands will need to make sure that they are present, too. The next step will be to turn the social media environment into a transactional one, and this is where the growing proliferation of images could be useful.

Users have flooded social networks with photographs since their smartphones' memory and their phone networks' capacity became fast enough to handle large volumes of images. It is not only Instagram which has witnessed such growth. Platforms such as Twitter and Facebook, which did not start off as photo-sharing sites, have also seen a rise in the number of photos being shared. The growth of another app, Snapchat, illustrates the transitory nature of much of this form of communication. The site enables users to send pictures to one another, often with captions or edited, which disappear within a few seconds of being received. This helps users continue to share pictures, but removes the requirement of having to store large images on their phones.

The growth of 4G networks and the improvement in smartphones' photographic capability mean it now takes only a few seconds to upload images to social media accounts. As a result, online communication has become more visual, and momentum continues to increase. Deloitte Global predicts that in 2016, 2.5 trillion photos will be shared or stored online, a 15 per cent increase on 2015. It also estimates that over 90 per cent of these photos will have been taken with a smartphone.

Photography's appeal is partly about capturing and sharing a moment, and smartphones have made it possible for everyone to do this. With consumers' means of communicating online changing, businesses need to make sure they understand what is happening, and that their own methods of communication keep up.

The growth of these channels has created opportunities for consumer businesses, but it has also challenged them to develop new digital marketing skills. These communication channels are particularly useful for fashion, food and homewares, all of which feature heavily on the networks mentioned. It also helps that the major social networks have, in the last couple of years, started to have more success in commercialising their platforms. In summer 2015 Instagram and Pinterest, an image-based network often described as an online scrapbooking or bookmarking site, both introduced 'buy' buttons. The growth in images on social networks has finally opened up the possibility of social media as a sales channel, adding to the brand building and marketing functions it already performs.

However, the pressure is on for brands to perform well – both users of these networks, and sometimes the networks themselves, demand a certain level of quality. Users will not click on images that are not aesthetically pleasing or interesting in some way, and each brand will need to think carefully about how this medium best suits its products and strategy.

Most consumer brands already take large numbers of images of their products for marketing and advertising, and it only requires a little bit of creative thinking to make them suitable for social media. Using straight-forward advertising images is not always advisable, however, as a sense of authenticity is valued. The type of posts that can work particularly well are those that bring another dimension to a brand, such as behind the scenes at a fashion shoot, images relating to a product's provenance or ideas on how it can be used. Energy drink manufacturer Red Bull is an interesting example, it runs several accounts all of which publish images of the various activities it uses to support its brand, such as motor races, gigs and extreme sports. There are almost no pictures at all of its actual products.

Case study – Fashion week

Instagram's impact has arguably been greatest in the fashion industry, and the extent of its influence in the sector is clear when looking at fashion weeks in both London and New York in February 2016. News about different catwalk shows appeared first on Instagram, and many influential opinion formers voiced their thoughts about each show on the platform.

Instagram's reach went further, however, with designers starting to use the medium to do more than just build excitement about a show. New York fashion designer, Diane Von Furstenberg, eschewed the catwalk shows altogether, instead running an 'open house' event that featured 'vignettes' of different models wearing the clothes around her studio in Greenwich Village, New York. The whole project seemed designed for Snapchat and Instagram.

Fashion brands can now almost build or run their businesses on the back of an engaged Instagram following alone. During New York fashion week in September 2015, new designer Misha Nonoo staged an 'instashow' during which she posted a series of 174 photos, instead of staging a traditional catwalk show. The project was said to have led to a 200 per cent increase in e-commerce sales.[32]

Brands who have already garnered large followings on Instagram include sports brand Nike and US lingerie chain Victoria's Secret, with 35.7 million and 32.6 million followers respectively (as of February 2016).

For brands willing to invest, the engagement levels on predominantly photo-based networks tend to be far higher than on other networks. A 2014 Forrester study found that a video posted by Red Bull on both Facebook and Instagram was liked just 2,600 times on Facebook (with 43 million fans at the time) and 36,000 times on Instagram (with 1.2 million fans). So even if follower numbers are lower, a well-managed photograph feed can still be extremely engaging and effective at drawing in consumers.

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