

Understanding





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Introduction

A baby learns how to use a touch-screen device by the age of two. Parents panic as a toddler talks to Alexa and gets a response full of explicit material. A father is so concerned about his unemployed son's gaming habits that he hires in-game assassins to kill his avatar.

Stories like these give a glimpse of how young people are already encountering the world in different ways to the generations before them – ways that can be both exciting and troubling. But while rare incidents such as these often appeal to a widespread uneasiness about the fast-changing world of tech, the real story is inevitably more nuanced. Is all "screen time" bad for children, or could apps help them develop certain skills? Can voice assistants offer a new way to communicate? And at what point does immersion in a digital world become truly problematic?

The next generation of young people will have unprecedented exposure to technology. Generation Alpha – a term coined by social researcher Mark McCrindle to describe the cohort of people born in 2010 onwards – will play, learn and interact in new ways. They are born into a landscape in which devices are intelligent, everything is connected and physical and digital environments merge into one. As they grow up, technologies that appear new or unusual to older generations will be a normal part of their lives, and will shape their experiences, attitudes and expectations of the world. Some neuroscientists and psychologists even believe that their minds will be in some ways different to those of previous generations.

This report aims to shed some light on the impact of technology and culture on this emerging generation, approaching the issue from three main perspectives:

- 1_ The effects of technology on the minds of Generation Alpha
- 2_ The technological trends that will define this generation
- 3_ How organisations and brands can reach Generation Alpha

The point of this report is not to make crystal-ball predictions, but to explore, based on current and emerging trends, the factors that will set this generation apart from those that came before.

It's important to note that generational boundaries are largely arbitrary and that there is much more commonality than there are differences between one generational cohort and the next. Members of Generation Alpha are not born inherently different to Millennials or Generation Z, but their personalities, motivations and outlook will be coloured by their shifting surroundings. Greater access to technology will lead to new ways of thinking and doing – and as the speed of technological change accelerates, so will our expectations.

The trends covered in this report will not only affect this generation, but will eventually affect mentalities across the board. Understanding these changes will be essential for those with a desire to stay ahead of shifting tastes and attitudes.



brain

01

Chapter 1: Inside the Alpha brain

For millennia, the human brain has relied on real-world stimulation for its development. But in recent decades, children have increasingly turned to digital devices for learning, interaction and play. Does this increase their capacity for knowledge and intelligence, or does it – as many claim – hinder their chances of development? We examine how technology is changing the way Generation Alpha interacts with the world, and how it could lead us to greater levels of awareness.



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Our brains will become more specialised

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We will outsource more brain activities to computers The debate over screen time rages on

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certain skills

Technology will enhance

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8 Inside the Alpha brain

The brain is not developed in a vacuum; it is constantly modified through experiences with the external environment. This is known as brain plasticity. "Every skill and every ability we have is refined by how we engage our brain in the world," explains Michael Merzenich, a professor emeritus neuroscientist at the University of California, San Francisco and a pioneer in brain plasticity research. "That is the basis of the creation of the operational person that we are."

Quite how technology is changing young minds remains unclear. Headlines tend to lean toward the alarmist: Google is making us stupid; smartphones are turning us into zombies; Facebook is making narcissists of us all. Others, however, argue that technology is enhancing our skills beyond what was thought humanly possible, and freeing our brains of monotonous tasks to focus on more high-level problems.

Regardless your position, one thing is clear: technology will not only affect Generation Alpha's experience of the world; it will also shape who they are.

Our brains will become more specialised

One trend that Merzenich has observed over recent years is the increase in

specialisation. Hundreds of years ago, he says, we were "operational generalists", with a broad set of overlapping skills needed to survive. But today, individuals' brains are becoming dominated by a narrow domain of problems and are increasingly specialised for specific tasks. "We've created a class of super-specialists," he says.

Merzenich predicts that this trend will continue for Generation Alpha, and will be pushed further by cultural shifts in the workplace. Employment is set to be widely disrupted by automation, meaning many of Generation Alpha will need to develop highly specialised technical skills in order to find fulfilling work. A July 2017 report by PwC researchers estimates that 30 per cent of UK jobs and 38 per cent of US jobs could be automated by the early 2030s, with sectors including transportation, manufacturing and retail at the highest risk.¹

This emphasis on specialisation, says Merzenich, could lead to cultural and social divides, with a "super class" of individuals taking highly specialised roles while others are left without meaningful work.

Technology enhances certain skills

We know that technology can make us better at certain tasks. Take the example of video games: a 2003 study in *Nature* found that people who played

What is neuroplasticity?

This describes how the human brain can change throughout an individual's life, even during adulthood. It alters in response to stimuli and refines its processes as it learns new tasks. Michael Merzenich, known for his work in this area. has shown that it is possible to use the brain's plastic qualities to help children with learning disabilities.

Some argue that
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video games had better visual skills than those who didn't.² To rule out the possibility that people with better visual skills were simply more likely to play games, the researchers then trained non-players on action game *Medal of Honor*. This group's visual skills improved. The researchers conclude that, "Although video-game playing may seem to be rather mindless, it is capable of radically altering visual attentional processing."

Subsequent research has linked video games to other improved cognitive effects such as hand-eye co-ordination and the ability to switch between tasks. Some studies have even found that playing certain video games can lead to children scoring higher on intelligence tests

- likely due to improved scores on the kind of visual tasks that gaming prepares them for and that are also commonly featured in fluid intelligence tests, which test problem-solving abilities. "Most of these games require the rehearsal of certain skills that are also part of some intelligence tests," explains Patti Valkenburg, a professor of media, youth and society at the University of Amsterdam.

As a result, some suggest that playing video games and other digital media could even contribute to a phenomenon known as the Flynn effect – a sustained increase in intelligence test scores from one generation to the next over the past 80 years or so.⁴ Put simply: technology could be making us smarter.

Research has linked playing video games to improved cognitive effects such as handeye co-ordination

We will outsource more brain activities to computers

While technology can help hone specific brain skills, some fear that it could also have a deleterious effect. The ubiquity of smartphones and tablets means almost all of us now have a high-powered computer within arm's reach at any given moment.

Having the world's knowledge at our fingertips is, of course, of huge benefit in many day-to-day situations. But Merzenich is concerned that it also means we no longer need to use the same memory or reasoning skills to solve problems – and so may lose these capabilities over time. "Now a person can operate pretty successfully in life, even in high-level jobs, by simply being really good at looking up answers," he says.

Susan Greenfield, a senior research fellow at the University of Oxford and an outspoken critic of children's use of technology, shares this concern. "Having technology at our fingertips means we no longer need to remember facts, dates, numbers, places or to answer simple questions," she says. Though some argue that this frees the brain for more intellectually demanding activities, she says that the brain adheres to a "use it or lose it"

policy and worries that by outsourcing 11 these simpler tasks, we will jeopardise our ability to store or retrieve the information needed to do so.

As new technologies are developed, Merzenich suggests that this effect could be amplified. From driverless cars to internet-of-things devices, there is money to be made from removing the need to use our brains for different tasks.

The debate over screen time rages on

These fears have led to much controversy in recent years over the issue of screen time: the amount of time young people spend interacting with digital devices. "No matter how high quality the content, time spent in a screen-based world displaces time spent learning, playing and socialising in the real world," says Greenfield. "Real-world toys, activities and human-to-human interactions foster the imagination, creativity and social skills in a child in a way technology typically does not."

In her controversial new book *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy – and Completely Unprepared for Adulthood – and What That Means for Adulthood – and What That Means for Manager 1988.*

² C. Shawn Green & Daphne Bavelier, "Action video game modifies visual selective attention", Nature 423, 534-537 (May 29, 2003)

Andrew J. Latham, Lucy L. M. Patston and Lynette J. Tippett, "The virtual brain: 30 years of video-game play and cognitive abilities", Frontiers in Psychology (September 13, 2013)

Patricia M. Greenfield, "The cultural evolution of IQ", in U. Neisser (Ed.), The rising curve: Long-term gains in IQ and related measures

12 the Rest of Us, psychologist Jean Twenge draws a link between the rise of smartphones and social media and an increase in depression, anxiety and loneliness among today's teens. (She defines the "iGen" as those born from the mid-90s, straddling the period between Millennials and Generation Alpha.)

She suggests that an increase in screen time – to the detriment of time spent on healthier, real-world pursuits – is to blame. "Teens now spend between six and eight hours on average on electronic devices, meaning tablets, computers, phones," she says. "I found they spent six hours a day on just three activities: internet, social media and texting."

Twenge's main findings are based on surveys and reports including the US Monitoring the Future report, which annually surveys tens of thousands of 8th-, 10th- and 12th-grade students (aged 13-18) on their behaviours. Based on these databases, she found that iGen dates less, drinks less and goes out less, but spends more time online. Twenge correlates teens' reported levels of happiness with the time they spend participating in on- and offscreen activities and finds that those who spend more time on the internet, social media and texting are more likely to report being unhappy.

The kids are all right

But not everyone agrees with this picture. Some researchers dispute that there is such a pronounced spike in teen unhappiness, and question how much time spent online is genuinely replacing more wholesome activities⁵. Reports such as *Monitoring the Future* can only show correlation, not causation, and rely on teens self-reporting their behaviour and mood. Several studies have failed to find a link between time spent online and loneliness or depression. One study published in January 2017 that looked at 120,000 UK adolescents' use of digital technologies concluded that "Moderate use of digital technology is not intrinsically harmful and may be advantageous in a connected world." 6

Indeed, proving a causal relationship between a generation's use of technology and their mental wellbeing is almost impossible. To do so, you would need to compare a group of people who use technology with people of the same age who do not. With computers and smartphones so central to modern life, finding that control group would be incredibly difficult. Even if you could find them, they would likely have other stark differences in experience, such as religious views or socio-economic factors.

The important thing here is not the technology itself, but how it is used, says Valkenburg. Take social media: she has found that being a member of a social-networking site can in fact boost young people's self-esteem and improve the quality of real-life friendships. But that is not the case for everyone? While most young people use social media to connect with friends they already know, some use



Hotwire: What does this mean for comms?

How do we communicate to an audience with neither the capacity or desire for remembering facts? We change the game: our proactive communications will have to entertain people in a memorable way and keep them coming back for more. We won't bother throwing facts at them because they won't stick. Instead, we will focus on tightly targeted placement of our reactive communications so we make an impact when **Generation Alpha needs** answers. The winners will be those that can be persuasive, brief and most visible on Google

it to primarily talk to strangers, which is a whole different experience. Similarly, spending time playing video games is not a problem for most people, but a small number could be susceptible to compulsive gaming or video-game addiction.

Ultimately, both the positive and negative effects of technology are generally statistically small, and there is more variation between individuals than there is between generational cohorts. "In my view, technology is influencing all of us, not just the younger generations," says Valkenburg.

Even where a generational difference can be observed, Valkenburg warns against making value judgments. Take the common accusation of narcissism directed at social-media-savvy Millennials. Is it so bad to exhibit confidence or enjoy celebrating one's achievements? The line between high self-esteem (generally considered a positive trait) and narcissism (considered a negative trait) is blurry, and Valkenburg even questions whether a small increase in narcissism is necessarily a bad thing – perhaps it could be a useful adaptation for success in many professions.

Alexandra Samuel, "Yes, Smartphones are Destroying a Generation, But not of Kids", JSTOR Daily

Andrew Przybylski & Netta Weinstein, "A Large-Scale Test of the Goldilocks Hypothesis: Quantifying the Relations Between Digital-Screen Use and the Mental Well-Being of Adolescents", *Psychological Science* (January 13, 2017)

Patti M. Valkenburg & Jochen Peter, "Social Consequences of the Internet for Adolescents A Decade of Research", Current Directions in Psychological Science (February 1, 2009)

Technologies

that

will

define

Generation

Alpha



02

CHAPTER 2 Technologies that will define Generation Alpha

As technology develops alongside Generation Alpha, user-friendly trends such as Al and voice will become increasingly common methods of communication between human and machine, leading to keyboards and screens giving way to controller-free gestural interfaces and two-way conversations between device and human. But could this open channel lead to increased data breaches? And how will Generation Alpha interact with personality driven with Al devices?



Technologies that Will
Define Generation Alpha

Learning through the

internet of toys

the Devices will gain emotional intelligence

Voice will become a major interface

to rival the screen

Interaction with technology will become more physical

Experiences will be personalised to suit the individual

Increased data collection will fuel privacy risks

The need for technological literacy is greater than ever

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18 Technologies that will define generation alpha

The mobile devices that now feature heavily in the lives of every generation are already prevalent among Generation Alpha. According to the most recent Ofcom report on children's media use, smartphone and tablet ownership among five- to 15-year-olds is increasing, with 41 per cent of children owning a smartphone and 44 per cent owning a tablet in 2016⁸. Many more use these devices, with tablets particularly popular among younger children: a majority of three- to four-year-olds (55 per cent) are reported to use a tablet.

But while these devices still hold strong in people's day-to-day lives, new technologies are emerging that offer different forms of interaction. Increasingly smart devices will be the norm for the generation that grows up with them: artificial intelligence will expand our ideas about what technology can do, data-crunching algorithms will make experiences ever more personalised and new interfaces will offer whole new ways of communicating. These trends will feed into Generation Alpha's expectations of technology and colour their interactions with the world around them.

Learning through the internet of toys

One big trend that is already shaping Generation Alpha's experience of technology is artificial intelligence. Some Al devices are specifically aimed at Generation Alpha – the "internet of toys" includes devices that incorporate technologies such as image or voice recognition, with current examples including Mattel's Hello Barbie and last Christmas' musthave Hatchimals. Others are entering homes in the form of internet-of-things devices and Al assistants such as Amazon Echo and Google Home.

A team of researchers at the MIT Media Lab recently ran a pilot study to explore how children interact with AI devices⁹. They observed a group of children aged three to ten interact with four AI "agents": Google Home; an Amazon Echo Dot, with its "Alexa" assistant; a chatbot tablet app called Julie; and Cozmo, a small autonomous robot made by AI toy company Anki. Most of the children found the AI agents to be friendly and trustworthy, and the older children often said the AIs – especially Alexa – were smarter than themselves.

This could correspond to a transition in children's perception of intelligence as they go to school, says Stefania Druga, one

Smartphone and tablet ownership among five- to 15-year-olds is increasing: one 2016 Ofcom report reveals that 41 per cent of children own a smartphone and 44 per cent own a tablet.

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Amazon Echo Dot and
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friendly, trustworthy
and even smarter
than themselves.



Augmented reality will increasingly be used to explore new virtual landscapes of the researchers involved in the study. "They start to associate intelligence with declarative knowledge, like memorising facts and new information," she explains. One seven-year-old girl, for example, said she thought Google Home was smarter than Alexa because it gave her more information about sloths.

The researchers observed the children pushing the boundaries of the Al toys' abilities to see what they could do. Some asked Cozmo (which cannot talk) if it could jump or open doors, and others offered the agents food – or asked, "Is it OK if I eat you?"

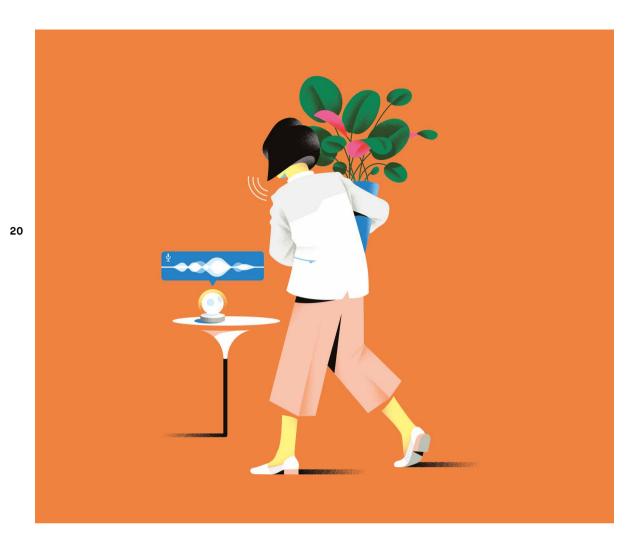
"I think at first children expect a humanlevel interaction, because these things are so different; they sort-of map it out from what they know," says Randi Williams, another researcher on the project. But as the children engage with the devices, they realise they're not human but perhaps closer to an animal or pet.

Devices will gain emotional intelligence

The idea of devices as pets is one that robotics company Anki actively tries to cultivate. Instead of spouting facts like Siri or Alexa, Cozmo's AI is all about personality and emotion. Though the robot cannot speak, it communicates through movements and expressions (its eyes are displayed on a small screen). Face-recognition technology also lets the robot

⁸ Ofcom, Children and parents: media use and attitudes report (November 2016)

Stefania Druga, Randi Williams, Cynthia Breazeal & Mitchel Resnick, "Hey Google is it OK if I eat you?": Initial Explorations in Child-Agent Interaction, Proceedings of the 2017 Conference on Interaction Design and Children (27-30 June 2017)



recognise its owner and say their name using its distinctive voice tones.

"The emotion that you might have with your corgi - we'd love to be able to bring that level of depth into a product like this," says Mark Palatucci, co-founder and chief product officer at Anki. Recent upgrades to the product let you "feed" and look after your Anki in order to encourage this kind of nurturing robot.

Palatucci says the Cozmo was inspired by the idea of bringing the kind of personality-driven characters found in animated films into the real world. (Anki's team includes former animators from Pixar and DreamWorks.) He expects devices to develop richer personalities over the next

decade, and to gain a greater understanding of their context and environment so they can respond accordingly.

Generation Alpha will likely have higher and higher expectations of smart devices as they're exposed to them from a young age. Palatucci says that adults and children over the age of 12 often respond to Cozmo with awe, as they haven't ever seen a device like it before outside of science fiction. But younger children have never known any different. "I think the expectation is, 'I want to have that relationship that I might have with a movie character," says Palatucci. "I think that's something that we're certainly getting closer towards."

Devices are increasingly using voice-recognition assistants as their primary means of control

'Kids more and more are demanding their physical play experiences to do more. to be more fun, to be more interactive and responsive' - Bethany Koby, Technology Will Save Us

'I think the expectation is, "I want to have that relationship that I might have with a movie character" - Mark Palatucci, Anki

Voice will become a major interface to rival the screen

Devices are increasingly using voice recognition as their primary means of control - with assistants such as Amazon Echo and Google Home again leading the way. Bethany Koby, co-founder of STEM-focused toy company Technology Will Save Us, thinks that voice as an interactive medium will affect children's play patterns in completely new ways.

"Quite frankly, I'm excited for the screen to disappear," she says. She hopes that more "natural" interfaces like voice will tap into the human side of technology and allow children to interact with the environment around them in a more fulfilling way. Screens, she says, put a barrier between the user and their environment and often result in quite an insular, singular experience.

Voice interfaces also make technology more accessible to younger children, says Williams. If you're interacting with a computer using a keyboard, there's a natural age limit as the user has to be able to read and write. "But when you have a device that can talk, you have to be old enough to talk to it - so now we're looking at three-year-olds," she says.

In the MIT study, however, the researchers found that voice-recognition systems often struggle to understand young children, and the technology doesn't always live up to expectations. One

boy got frustrated when Alexa wouldn't 21 play his favourite song. "If you have a device that speaks perfect English and it seems very smart and can pull all of this information off the internet - for a fouryear-old, they're very confused when it can't play 'I've been working on the railroad," says Williams.

Interaction with technology will become more physical

It's not just voice that offers an alternative to the keyboard and screen. Gestural interfaces let people interact with digital content using hand or body movements, using information collected by wearable devices or tracking sensors. These kinds of devices could be used to interact with virtual and augmented reality without the need to hold or touch a controller.

To Koby, these new interfaces promise a more engaging way to use technology that gets away from the passiveness of watching a screen. "I think kids more and more are demanding their physical play experiences to do more, to be more fun, to be more interactive and more responsive, and for them to be a part of that process in some way," she says.

She believes that augmented reality will increasingly be used as a way to explore new landscapes, especially as travel is made more expensive and difficult due to climate change and changing attitudes to transport.

22 Experiences will be personalised to suit the individual

As gadgets such as smart devices and wearable technologies collect more and more data on their users, companies will be able to tailor their offerings more precisely and develop products based on feedback, Anki, for example, found out from early user data (which was collected anonymously and in aggregate) that people were particularly fond of a Cozmo feature called Explorer Mode, which lets you control the robot's movements through a smartphone or tablet. "We were just blown away by how many people like using that," says Palatucci. As a result, the company added more capabilities to this feature, allowing children to move Cozmo's head and arms and to see the world through his front sensor.

Some devices and apps use the data they collect to become more personalised to the individual. Machine-learning algorithms can learn how a user interacts with a device over time and customise the experience to their needs. Koby foresees technologies growing and adapting alongside Generation Alpha. "They'll change, they'll modify, they'll learn about the interactions that are happening in order to create bespoke, customised, informed and unique experiences for kids," she says.

Increased data collection will fuel privacy risks

While AI tools and increased data collection allow for more personalised interactions, it also poses a security and privacy risk. Many smart devices are connected to the internet, which means they could be vulnerable to hacking. In November 2015, it was revealed that Mattel's Wi-Fi-enabled Hello Barbie doll could easily be hacked to turn it into a childsurveillance device; in February 2017, an official German consumer watchdog advised parents to destroy their children's Bluetooth-connected My Friend Cayla doll over similar fears. More widely, users are often ill-informed about how companies themselves can use the data these devices collect from them.

Connecting a toy to the internet immediately introduces a potential weakness for hackers to exploit. Toy company VTech, which makes kids' gadgets including tablets and baby monitors, was breached in 2015, exposing children and parents' personal data. Security researchers have also raised concerns that connected dolls and toys could breach privacy laws.

Yvonne Rogers, director of the University College London Interaction Centre, says this is particularly problematic when devices collect data from children, as they are not able to give permission. She points to devices such as smart baby monitors and bracelets that parents can use to track their baby's health stats or move-



Hotwire: What does this mean for comms?

Could we see the

death of the screen as a marketing channel when Generation Alpha comes of age? Is voice finally making a comeback after years of being pushed aside by email and messaging? Possibly. Video content ticks the entertainment box, but when it comes to eliciting a response, voice is a medium in which brands can directly engage on an individual basis to provide real meaning on a personal as well as collective basis. But brands will need to remember to build depth as well as breadth into their voiceactivated campaigns it's no good setting up a voice system which can't deal with follow up questions.

ment: these are collecting information about an infant who has no awareness of how their personal data is being used - and no say in it.

"In the next ten years we'll be seeing many more of these apps that you can easily use to measure and record," says Rogers. A parent could record a child's mood or daily activities, for example, and store that information in the cloud to analyse in aggregate. While this could have many benign uses, Rogers is concerned that the data could be used in unforeseen ways – and that these devices and apps could also cause parents to worry more about their child's development and encourage over-parenting.

Hannah Broadbent, deputy CEO of internet safety charity Childnet, says young people are becoming more aware of online privacy risks thanks to increasing digital literacy among themselves and their parents. However, she says there is still a knowledge gap, and young people usually think more about privacy in terms of keeping information from each other and people they don't know, rather than what companies can do with the data they collect. She thinks the demand for privacy may continue to grow as news spreads around new data protection laws such as the 2017 UK Data Protection Bill and European General Data Protection Regulations (GDPR).

The need for technological literacy 23 is greater than ever

A common theme in interviews for this report was the need to teach Generation Alpha how technology works. For Bethany Koby, whose company makes DIY kits, tech products can continue the tradition of construction toys such as blocks and LEGO and teach children important physical and problem-solving skills, as well as educating them about the technology itself. Yvonne Rogers has also been working on toolkits that help teach children a variety of skills beyond just coding.

Stefania Druga adds that we may underestimate children's capabilities in understanding the technology embedded in their lives. She finds that adult's reactions to questions about AI often tend to the extreme, but, in her experience, children can be open-minded and offer quite profound thoughts on the role these technologies could play in our lives. "I think a lot of our assumptions of what a young child today could understand or do are yet to be challenged," she says.

Connecting

with

Generation



Alpha

CHAPTER 3 Reaching **Generation Alpha**

Organisations and brands need to reach out to Generation Alpha, but what technologies and innovations will prove to be key in engaging the future's super-connected users? Will they be willing to cede personal data to marketers in return for discounts and special offers? And how will brands deal with algorithms skewed in favour of online's retail giants?



Connecting with **Generation Alpha**

New technologies will set a new gold standard

02

03

Video is dominating

social media

One brand to rule

them all?

online identities

05

Generation Alpha

will have multiple

Data and AI will help brands know when to engage

07 Consumers will be more savvy about how their data is used

Tech platforms will have more power over brand visibility

Brands must offer

authenticity

choice, diversity and

28 Connecting with Generation Alpha

Brands and marketers looking to reach Generation Alpha will need to adapt to stay relevant and remain sensitive to consumers' changing attitudes and expectations. This is not a new problem, says Andrew Stephen, associate dean of research and L'Oréal professor of marketing at the Saïd Business School at the University of Oxford – but it is still a big challenge, especially for established brands.

"Brands in general are a bit daunted by this generation, if not outright scared – for similar reasons perhaps as they were initially daunted or confused at approaching Millennials and Generation Z after that," says Stephen. "These are consumers coming into the market who may or may not have different ways of behaving, and may or may not have different expectations."

New technologies will set a new gold standard

If brands wish to remain relevant and appealing to young people, they must stay on top of emerging technologies. Stephen gives the example of augmented reality: young consumers are already becoming used to AR in mobile apps such as Snapchat, and this technology is likely to become much more mainstream. (In 2017, Apple and Google both released their own AR platforms for developers to work with.)

As future-looking brands experiment with these technologies, they set new expecta-

tions that others have to meet, too. Some brands, such as Nike, have already used AR in their marketing, allowing customers to try out different styles and colours digitally when they shop and connecting limited-edition designs to physical locations so they can only be unlocked when the customer visits in person.

Even brands that are not particularly tech focused will need to take notice. As Generation Alpha grows up, they will gravitate to brands that feel like those they already know and trust. If they're used to using AR when they shop for groceries, they will expect the same when they come to buy car insurance.

Brands must offer choice, diversity and authenticity

Increased access to technology and media means that consumers have never had more choice – something that Generation Alpha has already come to expect. Young people also have more tools at their disposal, from search engines to automated recommendations, that allow them to research and scrutinise their options before making their own choices. Birk Rawlings is head of DreamWorksTV at AwesomenessTV, which makes video content for kids and has more YouTube followers than Disney Channel and Nickelodeon. He summarises Generation Alpha's expectations thus: "They want everything and they want it now."

To be effective, brands must provide the variety that today's young people expect.

Birk Rawlings, head of DreamWorksTV at Awesomeness TV, summaries Generation Alpha's expectations thus: 'They want everything and they want it now'

Some brands offer customers discounts or loyalty points in return for personal data



have access to thousands of pieces of content across a huge range of media. Any company that wants to keep their interest must therefore serve content across a wide variety of formats and on a broad range of topics. DreamWorksTV has produced more than 100 video series in one year. "As a larger percentage of kids gain access to mobile and tablets, that individualised experience of controlling video selection is really empowering and exciting for them – and I only see that accelerating," says Rawlings.

Staying relevant means tapping into the passions of the moment. Rawlings says his team is not above jumping on the bandwagon of playground crazes such as slime or fidget spinners - but it's also important to create content with longer appeal. The key to this, he says, is authenticity and diversity. By diversity, he not only means demographic metrics such as race and gender but also representing a wide range of topics, styles and viewpoints. One recent day, videos on the homepage of DreamworksTV's YouTube channel included a Captain Underpants cartoon, a music video of a young girl covering a pop song and a step-by-step guide to building (and smashing) an "epic sand castle".

Authenticity means making communications feel more real and natural. This, says Rawlings, is demonstrated in DreamworksTV's two biggest hits: *Life Hacks for Kids*, in which children give step-by-step making tutorials, and *Junk Drawer Mag-*

ic, where presenters make magic tricks out of household objects. "The shows' hosts are very real; they don't look and act like super-high-polished actors, it feels like you're hanging out with friends" he says. "I think that's a big part why some of these new platforms have worked so well because there is a hunger for that kind of relationship with entertainment."

Video is dominating social media

Social media is already a major destination for brands to communicate with consumers and vice versa, and that will continue to be the case – but the platforms and tools will evolve. One clear development is a shift toward video content. Childnet's Hannah Broadbent says that younger children are not yet on many of the big social networks, but YouTube remains incredibly popular. "More than one third of three- to four-year-olds are using YouTube, and over half of five- to seven-year-olds," she says.

DreamWorksTV distributes its shows through a variety of platforms globally, but YouTube is its flagship. "It's the number-one kids' brand, and it's also the best place I'm aware of to aggregate audience," says Rawlings.

Other platforms are shifting to video too. In August 2017, Facebook announced it would be commissioning its own video shows for the first time with the launch of Facebook Watch. Consumers, meanwhile, are increasingly encouraged to

GENERAL DATA PROTECTION REGULATION

In May 2018, new data protection rules will come into force across Europe. The General Data **Protection Regulation** (GDPR) will change how businesses and organisations can handle people's information. The law will require companies to be more accountable for data they hold, allow individuals greater access to information held about them and give regulators the power to fine businesses that don't comply up to €20 million (£18m) for major offences.

produce their own video content through image-led platforms such as Snapchat and Instagram.

Generation Alpha will have multiple online identities

While many of Generation Alpha don't yet have their own social-media profiles, they are beginning to experience them and are building their own digital footprint through their parents' profiles. But while sharing details of our personal lives is becoming second nature, our relationship with social platforms is becoming more nuanced. "There's less reluctance to broadcasting your life to others, but at the same time this is a generation that is very sensitive to privacy," says Andrew Stephen.

Increasingly, people present different identities across different platforms, with varying levels of intimacy and expectations of how they will be received. On one platform, for instance, they may live-stream their innermost thoughts to a select group of close friends. On another they may post stylishly curated photos for the whole world to see.

For brands, the difficulty is in identifying when it's appropriate to engage. They no longer just need to work out who the consumer is, but which of that consumer's identities they are dealing with. "This whole idea of consumers having different identities and personalities for different audiences across social-media platforms is something that people in their 30s and

above probably don't really think much about," says Stephen. "Whereas if you go to people in their teens and 20s, and probably by default even younger, there's very much this sense of identity management."

Intruding at the wrong time could have a negative effect – especially given the growing phenomenon of shaming brands who step over the line on the very platforms they are trying to use to promote themselves. Stephen draws a link between this increasing distaste for advertising that feels intrusive and the rise of ad-blocking software, which allows users to opt out of seeing certain digital ads. Younger people, he says, don't like the idea of being directly marketed to.

Data and AI will help brands know when to engage

Data and Al-based tools can help marketers – or data scientists embedded in marketing groups – to identify the right time and place to communicate with people and offer real-time recommendations. Al chatbots can offer customer service across different platforms at any time of day, and help guide people to the content most suitable to their needs at that moment.

"There is definitely value in making sure you do everything you can to learn from customer behaviour, because ultimately that's where audience expectations are going," says Rawlings. "You want the simplest experience possible, and you



Targeting shoppers can come across as intrusive if pushed too far: we've all had that experience of looking at a jacket on a retail site, only for it to stalk us around the web for days after.

don't want to spend hours trying to find what you want. In this world of massive choice, the systems that are the best at predicting what you're going to want next are the most successful."

Consumers will be more savvy about how their data is used

But while many brands currently do not make good use of the data they collect, there is a danger of going too far. While targeting shoppers based on their behaviour and preferences can help show them information most relevant to them, it can soon come across as intrusive if pushed too far or poorly executed: we've all had that experience of a looking at a jacket on a retail site, only for it to stalk us around the web for days after. Smoothing the cracks in marketing tech, by finetuning targeting algorithms and improving communication between databases, will help to solve these problems.

Perhaps more importantly, customers are becoming more careful about how their data is used. Governments are following suit, with regulations such as GDPR giving individuals more control over their personal information (see p30). There's a risk, then, that consumers could simply revoke access to their data if brands don't exercise caution.

"[Brands] need to be worried about the customer of the future saying, 'I'm switching it off, you can't have my data,' or, more realistically, 'You can have my data, but what are you giving me in return for it?" 33 says Stephen. Some companies already operate this kind of data exchange, for example offering discounts or loyalty rewards if people agree to share their information.

Stephen believes that brands today could get ahead of the game and engender greater trust from consumers by committing to transparency over how they use data. But many companies are put off by regulation, he says, and tend to adopt a wait-andsee approach on data issues rather than leading the way.

Tech platforms will have more power over brand visibility

The rise of social media and internet search has given brands a new way to reach and engage with their consumers, but it also makes them beholden to platforms they have little or no control over.

DreamWorksTV, for example, relies on its shows appearing in YouTube searches and recommendation bars to keep attracting new viewers. But they have no influence on the constantly changing algorithms that make these decisions. "It is one of the challenges of operating on other people's platforms," says Rawlings.

YouTube's search algorithm optimises for factors such as video length. This, to an extent, informs DreamWorksTV's editing decisions when creating content (at the moment, most of its videos are between two and five minutes long). But ultimately,

Today's consumers adopt different identities depending on the social-media platform they are using at the time

34 says Rawlings, the two companies have shared goals: "For them, it's having people stay on the platform longer and ultimately to serve more ads; for us it's having people

One brand to rule them all?

engage with our content for more time."

Now that tech giants play such a large role in the marketing we see, there is a concern that their algorithms could boost visibility of some products while essentially eliminating others from view. Scott Galloway, a professor of marketing at New York University Stern School of Business, has suggested that voice-search systems such as Amazon's Alexa could have a destructive effect on brands, especially those that make everyday consumer packaged goods¹⁰. Amazon Echo offers a new way to shop using voice commands, but provides customers with much less choice than a conventional Amazon search. Ask Alexa to buy batteries and it will suggest just a couple options – all from Amazon's own product range.

The voice interface is particularly damaging for brands, argues Galloway, as it does away with the need for packaging, design and store displays, leaving few options for brands to differentiate themselves. He says that people are using brand prefixes in Google searches and in voice commands to Amazon Alexa less often,

suggesting a move away from traditional brand loyalties¹¹. The jury is still out, however, on whether the Echo's voice interface will completely replace the screen: Amazon's most recent Alexa product, the Echo Show, for instance, includes a screen as well as a speaker.

Stephen is more optimistic about the opportunities Amazon Echo presents for brands. The reason it works so well, he says, is because it offers a useful service, like ordering milk when you need it, rather than bombarding customers with advertising about its AmazonFresh grocery service. But other brands can also make use of this new platform by developing useful services, called "skills", rather than just trying to push their products on people. "It reminds me of the early days of the app stores," he says. "The whole ecosystem is only going to take off if third-party apps or skills are an intrinsic part of it, because otherwise it's kind of pointless. Amazon clearly has a vested interest in trying to use Alexa to sell more of its products, but it can't just be a shopping device."

In a climate where customers don't want to be marketed to, offering a genuinely helpful service can help brands and marketers connect in a valuable way.



Hotwire: What does this mean for comms?

We won't reach

Generation Alpha on our terms - through out-ofhome, point-of-sale or digital ads. Instead, we'll need to talk to them at their point of need when they ask Alexa for a recommendation on their next toothpaste or when they're browsing YouTube for their next recipe idea. The bravest and arguably most successful marketers will develop subtle communications campaigns that won't even talk about their own brands, such as a meal their content recommends that doesn't feature any of its own products. But it will meet a need and make Generation Alpha trust us as a content provider first and a brand marketing to them second. By building this emotional connection over time, we'll create a different kind of relationship, one which is personal to

the consumer.

35

L2inc, Scott Galloway: This Technology Kills Brands, youtube.com/watch?v=BXEu8RcneZQ (June 1, 2017)

¹¹ The Bottom Line with Henry Blodget, Business Insider (April 20, 2017)

CONCLUSION

Conclusion: A generation of difference?

Technology is embedded in almost every aspect of our lives, and this will be even more true for Generation Alpha. They will have increased access to existing and emerging technologies, and will become accustomed to interacting with digital content in new ways – no doubt including many unforeseen in this report.

While we can assume that these trends will broadly affect Generation Alpha's expectations of the world, it would be foolish to treat this generational cohort as homogeneous in outlook and attitudes. Indeed, we have seen that young people today value the independence to make their own choices, manage rich and varied digital identities and increasingly expect services to take their individual needs and preferences into account.

Meanwhile, data and AI tools mean that services and brands can understand their audience on a more granular level than ever before and can target consumers with much greater specificity than a sweeping age range.

We must also recognise that, while many childhood experiences are shared across demographic lines, access to technology is not equal. It could be that one of the most socially disruptive consequences of advancing technologies is the unequal distribution of positive and negative effects, with the richest and most tech-literate gaining a greater advantage over their less well-off peers.

This also impacts marketing. Already we are seeing cases in which users who pay for digital content can opt out of advertising that free users must put up with. Scott Galloway goes as far as to say that advertising is "a tax that the poor and the technologically illiterate pay". 12

By definition, viewing Generation
Alpha under a single banner is only
useful as a top-level perspective. The
flip side, however, is that many of the
observations we make about Generation
Alpha may also have relevance for
older and younger people who are
subject to the same technological
and cultural shifts (just as it is not only
Millennials whose lives are influenced by
smartphones and social media).

Tracking these trends can therefore have much broader significance for those wishing to understand our effect on technology – and technology's effects on us.

¹² Recode Decode, Google is God, Facebook is love, and Amazon will be worth \$1 trillion (Scott Galloway, founder, L2)

38 Many thanks to the following people who were interviewed for this report and whose expertise in various fields helped shape its conclusions:

Hannah Broadbent

is deputy CEO at UK charity Childnet, which aims to make the internet a safer place for children and young people. She also sits on Facebook's Safety Advisory Board.

Mark Palatucci cofounded entertainment robotics company Anki. He was the founding CEO of software company Copera, and held engineering and research positions at Google and Intel.

Patti Valkenburg is a professor of media, youth and society at the University of Amsterdam. She is also the co-author of the 2017 book *Plugged In: How Media Attract and Affect Youth.*

Stefania Druga is a graduate student in the

Personal Robots Group at the MIT Media Lab.
She is also the founder of STEM organisation
HackIDemia and digital-fabrication training project Afrimakers.

Birk Rawlings is head of DreamWorksTV at AwesomenessTV, a media company aimed at children and young people. He has also held positions at Nickelodeon and Walt Disney

Randi Williams is a graduate research assistant in the Personal Robots Group at the MIT Media Lab. Her focus is on designing robots that supplement the

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Animation Studios

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Andrew Stephen is associate dean of research and L'Oréal professor of marketing at Oxford University's Saïd Business School. He specialises in the intersection of marketing and technology.

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iGen: Why Today's
Super-Connected
Kids Are Growing
Up Less Rebellious,
More Tolerant, Less
Happy-and Completely
Unprepared for
Adulthood.

Jean Twenge wrote

HOT/IRE

Hotwire is a global communications agency that helps brands better engage and connect with their customers. From Sydney to San Francisco, was operate with a borderless mindset across 22 locations including the UK, the US, France, Germany, Spain, Italy and Australia, together with co-branded and affiliate partners across the globe.

The consumer market has never been so cut-throat, so today's brands need to connect in a meaningful way. To remain relevant, they need to be about more than product and pricing. They need to be a part of a consumer's life.

Hotwire's teams are dedicated to winning the battle for hearts and minds. From working with brands from action cameras through to fold-up bikes and travel sites, we bring brand loyalty right to the front of our campaigns.

For more information, please visit hotwireglobal.com

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