DIGITAL NATIVES:
BORN
2 B
CONNECTED

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Global WorkPlace Innovation

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Contents

Johnson Controls research

Global WorkPlace Innovation and the Johnson Controls Automotive Group conducted a study in 2011 to evaluate the lifestyles of the new generation entering the workplace, i.e. 'Digital Natives'. The aim of the research was to understand the lifestyle of Digital Natives and their relationship towards technology in order to identify how the workplace may need to change to accommodate them.

The research was conducted in Germany, UK, USA and China in a two-stage process. First, qualitative interviews were conducted with Digital Natives and Digital Native experts to gather an understanding of lifestyle, values and use of and attitudes towards technologies. The second stage included more than 2,800 respondents to a survey across all regions.

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DIGITAL NATIVES

Digital Natives, a self-confident new group of employees, are entering the workplace. Although they have many of the same needs as previous generations, they are different in how they approach work, communicate, and integrate technology into their daily lives.

Companies will need to create a balanced working environment that attracts Digital Natives, without excluding other generations. The key to this will be to find the right blend of technologies and keep working processes simple.

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Executive Summary-Digital Natives: Same, same but different

Key results:

• **73.6% 'agree' to 'completely agree' that new technologies are addictive**

• **32.6% feel inefficient and cannot keep up with the pace of life without technologies**

• **60.8% also feel cut off from their friends and miss out on a large part of their life without technologies**

• **35.7% 'disagree' to 'strongly disagree' that new technologies put them under pressure and intimidate them**

• **55.1% 'agree' to 'strongly agree' that without technologies they cannot keep up with life**

• **59.8% of the respondents are 'satisfied' to 'completely satisfied' with their current workplace provisions**

• **77.3% report that advanced technologies in their workplace is important to very important**

Digital Natives are the generation born during or after the general introduction of digital technology. While individuals from elder generations recall organizing, planning and interacting with each other without mobile devices, computers or the internet, Digital Natives have been using these technologies since their early years.

The Digital Natives tell us they are the 'same, same but different' from previous generations. But Digital Natives are a tech-savvy generation at the forefront of technological progress. From early childhood, Digital Natives have naturally developed the skills needed to interact with new technologies. They desire to be connected whenever they wish, from wherever they are. Now graduated from secondary education, the first generation of Digital Natives is entering the workplace and is transforming it at an incredible pace. This report highlights how the workplace industry needs to embrace these changes.

Digital Natives have developed an innate understanding of digital and computer technologies, which have become essential parts of their daily lives.

Technologies and the internet have permeated all spheres of their life and are omnipresent. Digital Natives refer to the internet as 'the backbone of their life' and describe technology as 'essential in their life', 'addictive' and an 'extension to their bodies'.

The need for mobile data traffic is significant and Digital Natives feel the need to 'always be on'. Their ability to multitask enables them to search, access, exchange data wherever they are. This, combined with the ability to communicate fast and efficiently across a network, make them ideal networkers. While being information junkies, they also have the capability to deal with large volumes of information simultaneously and are able to dip in and out of it rapidly. They are typified by a team approach towards collective intelligence which support the mindset that all information is out there.

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Executive Summary-Digital Natives: Same, same but different

Digital Native behaviour within a working environment brings a new layer of complexity to the workplace. By being globally connected, always on, flexible and continuously in collaborative mode, they are at the core of the knowledge pool. Organizations have an opportunity to leverage this level of knowledge by encouraging Digital Natives to share it with older co-workers.

Digital Natives often criticize the low standard of general basic technological equipment which negatively impacts their productivity at work. As Digital Natives enter the workforce, they will infuse companies with a new culture, conducive to a generation more adept at incorporating technology into their personal and professional lives than previous generations.

However, one preference that Digital Natives and elder generations have in common is the need for workspaces that can support teamwork - a commonality that will help the differing age groups easily collaborate in the workplace. This shift to working in virtual teams using a range of technologies is tied to a decrease in the amount of time that office workers expect to spend at their desks, on the phone, or in traditional meeting rooms. Employers need to start to listen and understand the behaviours of the Digital Native generation and adapt their workplace to their needs.

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Introduction

The way business is done is changing. Today's business environment is faster paced than ever before.

The universal availability of the internet, computers and other information and communication technologies has fundamentally changed the way we do business. Also, powerful and readily available consumer technologies are changing the way that people interact in their daily lives.

A NEW GENERATION is entering the workplace. Digital Natives were born after the general implementation of advanced technologies. They have FULLY ADOPTED TECHNOLOGY into every sphere of their private lives and they are the first generation whose educational achievements were achieved with information and communication technologies. They never experienced learning and working patterns without the use of technologies. That's what makes them different to previous generations. Not so much in what they do, but how they do it.

DEMOGRAPHIC CHANGES empower the decreasing number of younger people entering the workplace. A WAR FOR TALENT forces companies to think about ways to attract this generation.

Digital Natives will displace the baby boomers, who will start to retire within the next few years, and will inject a new working culture into companies.

Digital Natives are GLOBALLY CONNECTED, FLEXIBLE, COLLABORATIVE and have developed different communication styles due to advanced technologies, the internet and social media platforms like Twitter and Facebook.

In their private lives Digital Natives use tools and technologies to make daily activities more efficient, easy and entertaining. Companies need to be prepared for the CULTURAL CHANGE that Digital Natives will bring into the workplace and think about the opportunities that this new generation provides.

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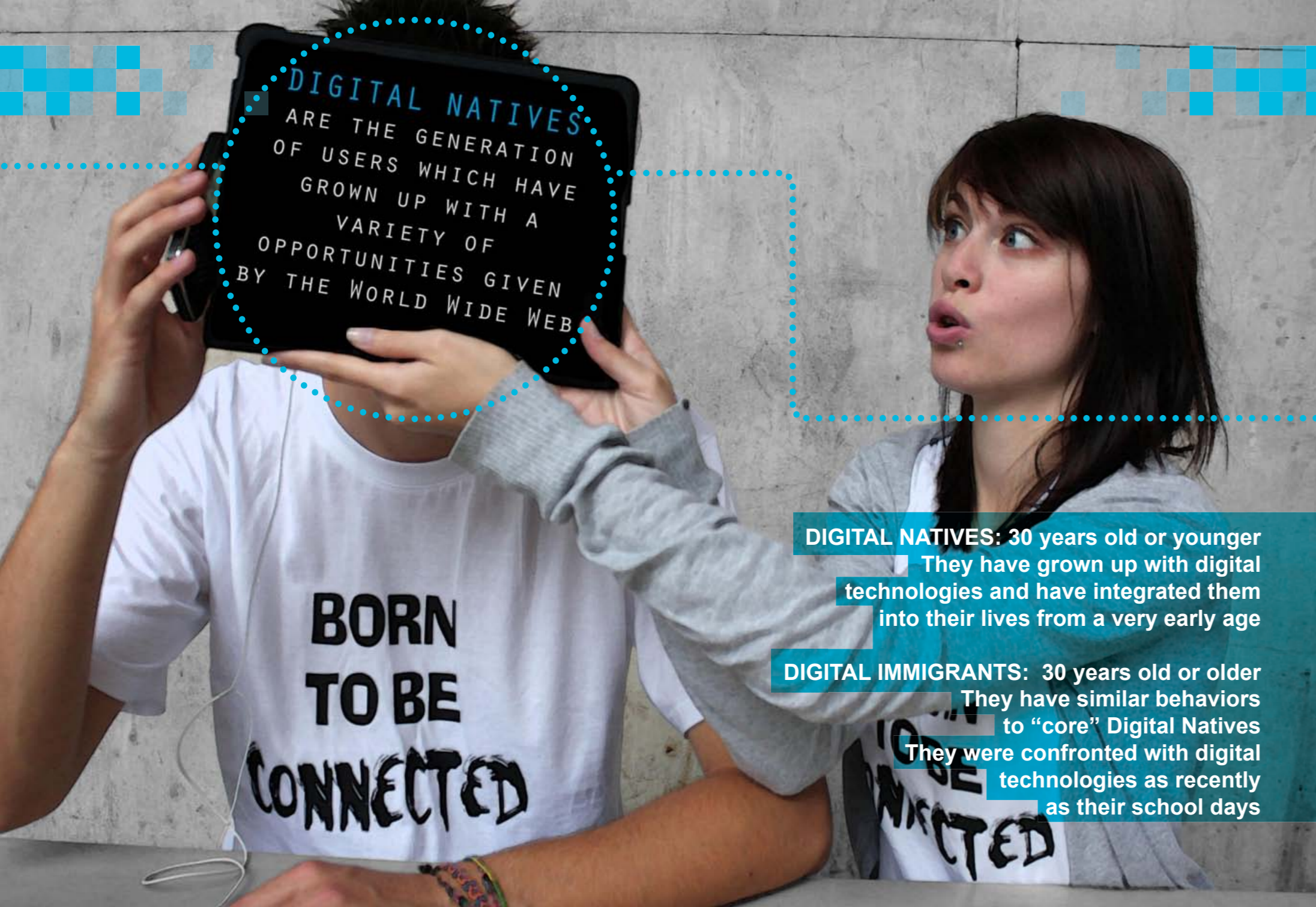
DIGITAL NATIVES ARE THE GENERATION OF USERS WHICH HAVE GROWN UP WITH A VARIETY OF OPPORTUNITIES GIVEN BY THE World Wide Web

DIGITAL NATIVES: 30 years old or younger
They have grown up with digital technologies and have integrated them into their lives from a very early age

DIGITAL IMMIGRANTS: 30 years old or older
They have similar behaviors to "core" Digital Natives
They were confronted with digital technologies as recently as their school days

BORN TO BE CONNECTED

The Digital Natives: Who are they and what do they do?

Since early childhood, Digital Natives have integrated technologies into their lives and developed skills to naturally adapt to them. They have evolved to make digital technologies an integral part of their daily lives.

The internet is the key 'backbone' technology that connects the various spheres of life such as work, social networking, education etc. Smartphones with internet access support the need to always be connected and up-to-date with instant access. The internet evolved from being a source of information and data, to something that enables the sharing of updates and experiences with friends and family in blogs, forums or social platforms. Its main purpose for Digital Native is social networking, followed by business and entertainment purposes.

The majority of Digital Natives spend between two-to-four hours per day on the internet. However, a quarter of Digital Natives are on the internet from four-to-six hours a day. They are masters of filtering the flood of information they receive every day. As a result of this massive investment of time using digital media, this generation has become masters of navigating and filtering the flood of information they receive, skilled at multitasking, and must be able to access the virtual world at all times.

Generations @ Work

- Lost Generation
- Silent Generation
- Veterans
- Grey Generation
- Granny Generation

- Beat Generation
- ... BB...X...Y...Z
- Digital Natives... Born with Technologies
- Millennial
- Alpha

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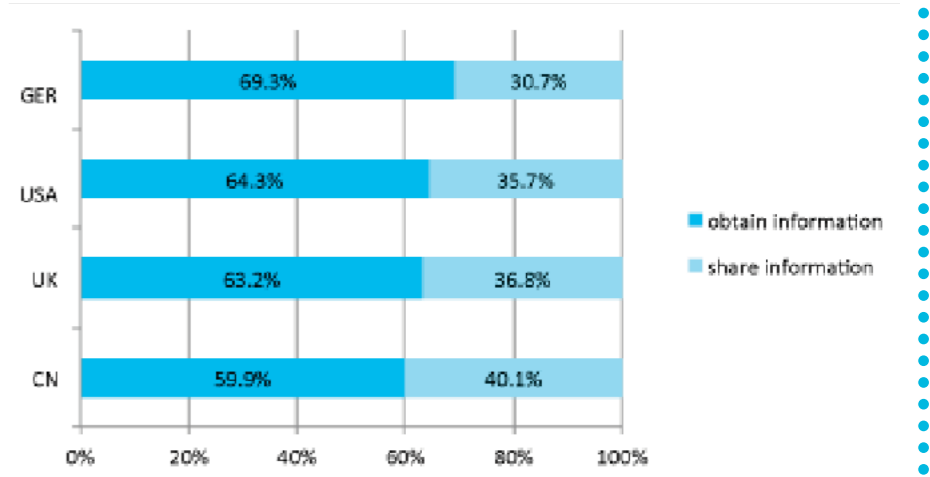**56.6% download up to 30 Apps per month**
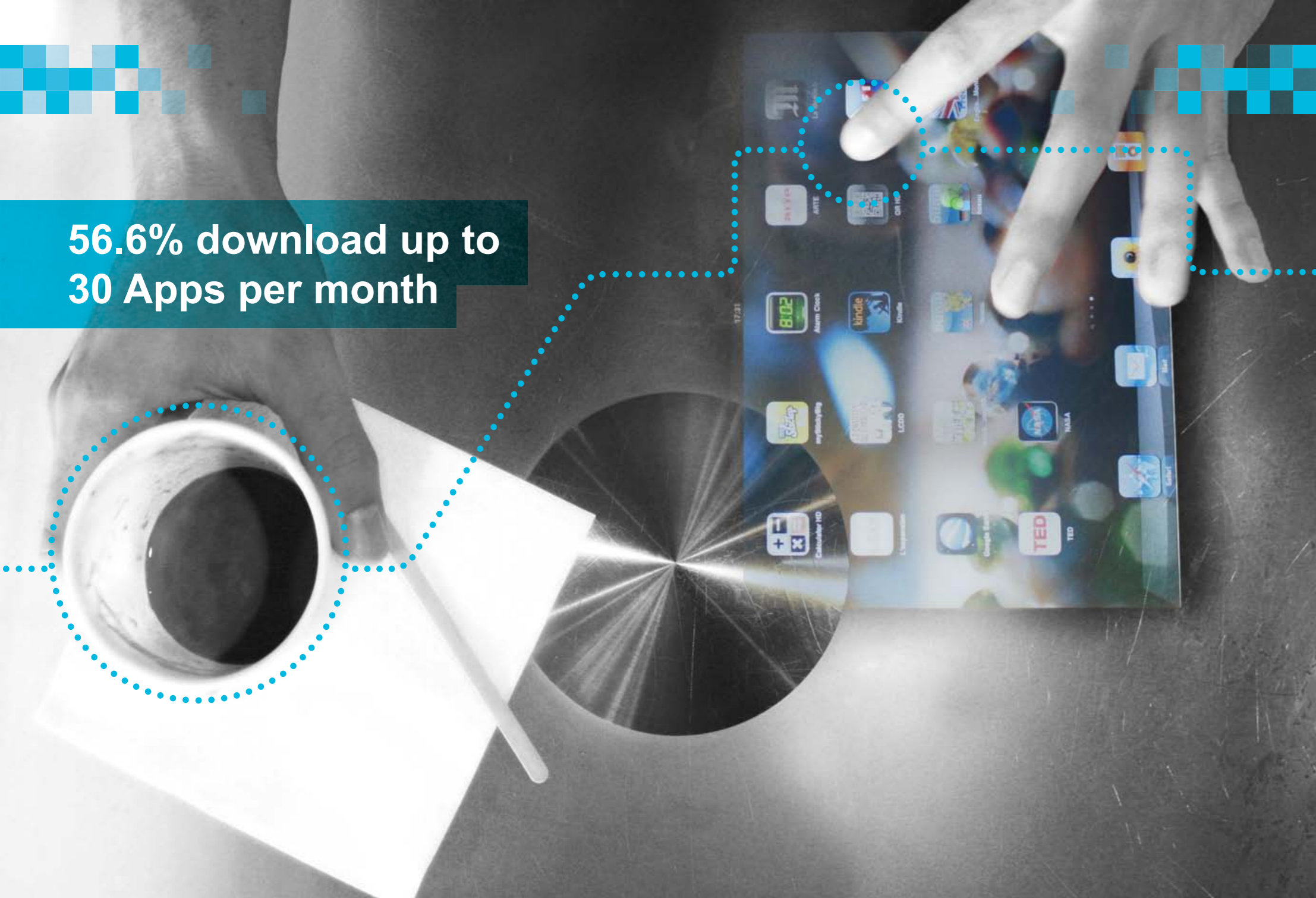
New ways of communication

The internet is shifting from a static web towards a DYNAMIC and INTERACTIVE flow of exchanging information.

Before the advancement of digital technology and social networks, people typically communicated with the same few groups of peers. As connectivity continues to increase, people have become more self-reliant and resourceful while interacting with one another on a broader scale in the virtual world. For Digital Natives, the intensity and diversity of interactions with virtual like-minded people has increased considerably, as they share ideas and collaborate with peers on a global level. This greater level of experience, knowledge and information is also reflected in purchasing behaviors, as an empowered and better educated consumer.

When asked to define itself, the Digital Native generation responded with, "We are Apple and we do Facebook." To this generation, Facebook is an indispensible social link to family, friends and groups, and Apple embodies technological progress, innovation and creativity.

The development of REAL TIME data transfer affects not only the communication but also the interaction in the www. Within seconds user can share information which also supports the change from static towards and interactive web and SPEEDS UP enormously the INFORMATION and COMMUNICATION FLOW.

What do you use the internet for?

	obtain information	share information
GER	69.3%	30.7%
USA	64.3%	35.7%
UK	63.2%	36.8%
CN	59.9%	40.1%

0%   20%   40%   60%   80%   100%

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77.3% report that advanced technologies in their workplace is important to very important

The Chinese have reported a high level of satisfaction with current provisions, followed by the German, then the Americans and finally the British

Why consider Digital Natives for the working environment?

The global demographic change empowers the decreasing number of younger people entering the workplace. They will displace the retiring baby boomers and will infuse a new working culture into companies.

Not only are more processes now supported by technology in the workplace, but Digital Natives are more adept at incorporating it into their personal and professional lives than previous generations. Companies can leverage this experience and knowledge about technologies, tools and applications to improve processes, efficiency and motivation.

While the majority of Digital Natives are satisfied, there are several areas in need of improvement in the workplace, specifically in terms of technology:

- Greater access to technology in the workplace

- Cloud computing for easier updating and distribution of information

- Internal knowledge management to support collaboration

- A more comfortable working environment, as the lines between work and private life blur

- A sustainable working environment

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Our respondents report that they primarily use fixed technologies (laptop, PC) rather than mobile technologies (tablets, cellphones): (65.6% fixed against 34.5% mobile)

Communication Styles

With increasing mobility people have started to become more independent and individualized – they also belong to many different communities based on their specific interests and tastes.

With development of technologies and especially the extended use of the internet people started to connect with each other within the virtual world but on a much broader scale than they ever have face-to-face. Both, the intensity and diversity of interactions with real-life contacts and virtual like-minded people increased globally.

This means people communicate with people they want to interact with, people they share similarities with and they feel connected to, either on a one-to-one basis or with virtual communities. The Digital Native generation push this way of social interaction to the extreme.

This increased sharing of experience, knowledge and information can also link back to their purchase behavior. They are empowered and better educated consumer as a result.

> "The Digital Native generation push this way of social interaction to the extreme."

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Generation characteristics of their lifestyle

Future trends in new technologies and applications

User patterns and behavior regarding products and particularly technology

Sense of belonging with technology

Methodology: Objectives of the research

The objective of this project was to develop an in-depth understanding of the Digital Native generation today and assess its significance. The study focuses on Digital Natives' lifestyle and how technologies influence and impact on the way they work and live.

The study, which was conducted in Germany, the United Kingdom, the United States, and China, aimed to uncover the changes that need to be made to the workplace to accommodate this generation. During the first phase of the project, qualitative interviews were conducted with Digital Natives and Digital Native experts to develop an understanding of lifestyle, values and technology usage behavior and habits. Interviewees were screened and selected on the basis of being high users of technology and opinion leaders in their peer groups. The second stage included a survey of 2,800 respondents to validate the findings of the in-depth interview.

Aims:

- Identify the key characteristics of the Digital Native generation

- Assess future trends perceived by Digital Natives in the domain of new technologies and applications

- Assess their usage behavior in relation to products and particularly technology

- Understand how they would cope without digital media and technologies or compensate the deprivation

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In the UK, China, US and Germany

8 Opinion Leader interviews

More than 2,800 respondents

2 Digital Natives Experts

Trend Analysis

Methodology

Phase 1 **Eight Opinion Leader interviews**

• To understand the lifestyle of Digital Natives, between the age of 15 and 30. The interviewees were screened and considered to be OPINION LEADERS within their peer groups

Phase 2 **2800+ respondents**

• To deepen and validate the findings, and gather information about similarities and differences between GERMANY, UK, USA and CHINA. A sample size of 2,854 gives the research a solid basis

Phase 3 **Two Digital Natives Experts**

• To interpret the results

• To gain foresight thinking

Phase 4 **Trends analysis**

• To monitor trends on consumerism, society, markets, work, workplace and technology

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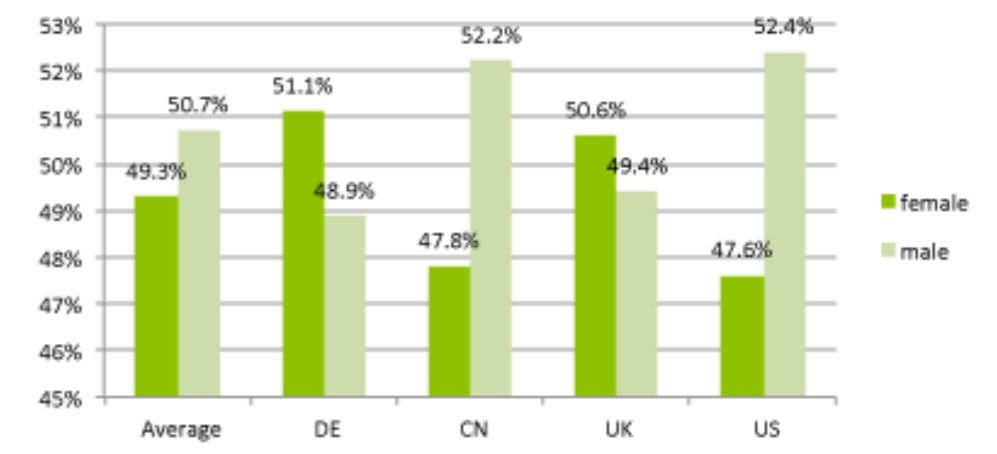
Finding 1: Same, Same but Different

Digital Natives DO NOT CONSIDER their lifestyles to be much DIFFERENT when compared to older generations (for example their parents).

However, DIFFERENCES DO EXIST – less with regard to "what they do" but rather "HOW they do it".

" How they do it "

39.6% disagree to completely disagree that without technologies they feel free and relieved

New technologies...... add "spice" to my life and make it exciting

Legend: Disagree completely, 2, 3, 4, Completely agree
Countries: USA, UK, CHINA, GERMANY

Without technologies...... I feel free and relieved

Legend: Disagree completely, 2, 3, 4, Completely agree
Countries: USA, UK, CHINA, GERMANY

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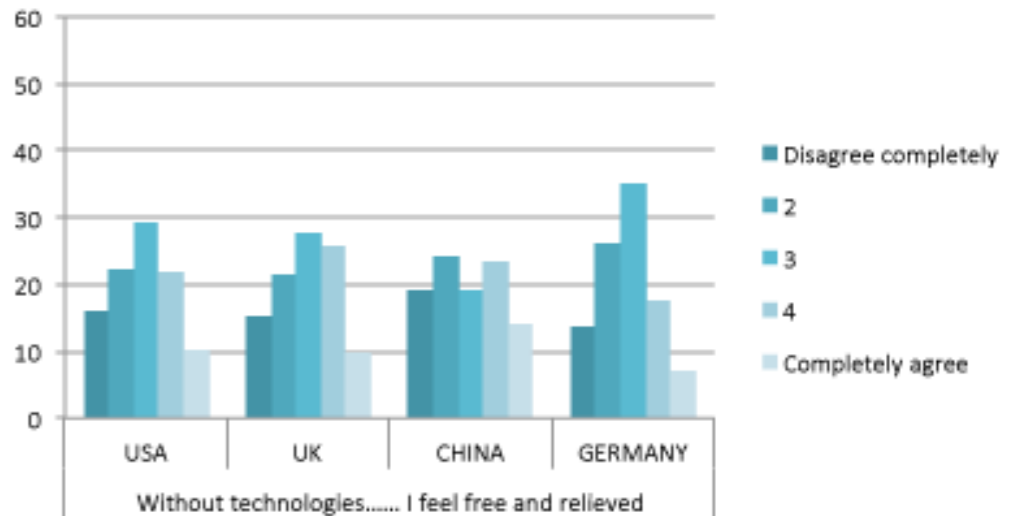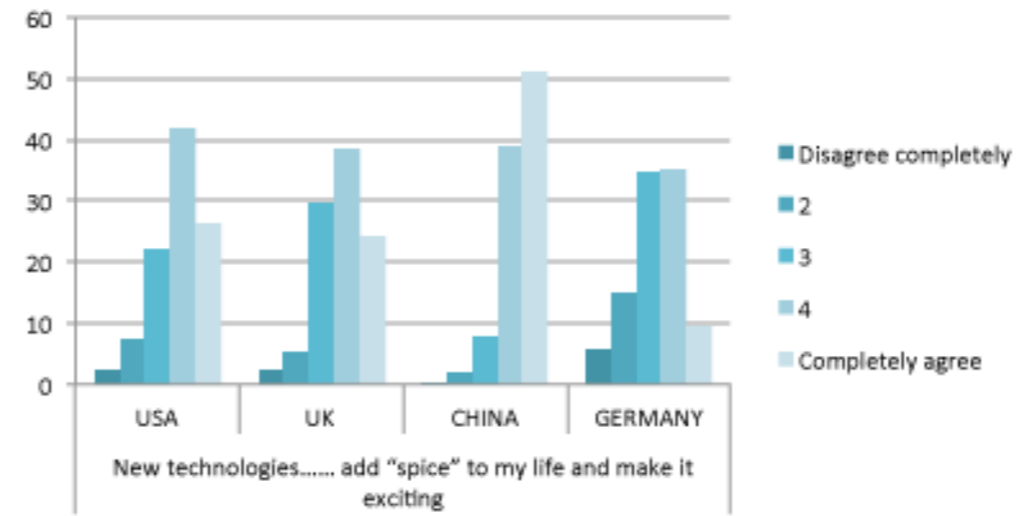
Finding 2: We are Apple & we do Facebook

This is what the generation claims about themselves when asked how they would define themselves. These two companies revolutionized their markets and how people interact and communicate with each other.

Apple, with the iPhone, iPad and the App services as latest innovations, embodies technological progress, innovation and creativity. Digital Natives strongly associate these qualities with their lifestyle. Facebook is considered THE social link to family, friends and groups. It reflects and underlines the importance of internet-enabled, 'always-on' social relationships.

Legend:
- Disagree completely
- 2
- 3
- 4
- Completely agree

Chart categories: USA, UK, CHINA, GERMANY (Y-axis: 0–60)

Without technologies...... I feel "cut-off" from my friends and miss large parts of my social life
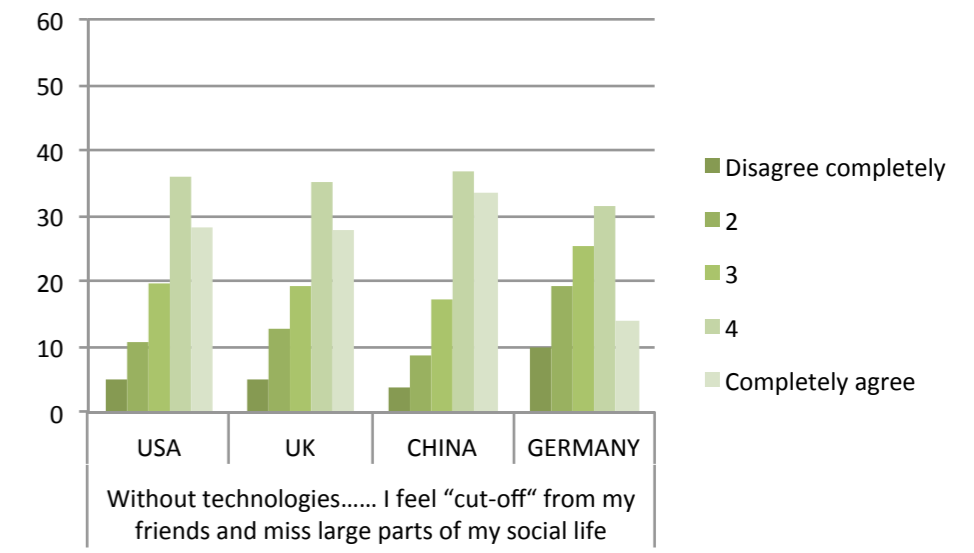
> **Those who are connected with me on Facebook are always up-to-date with my life and the others gradually alienate. Those who are not online miss the boat.**

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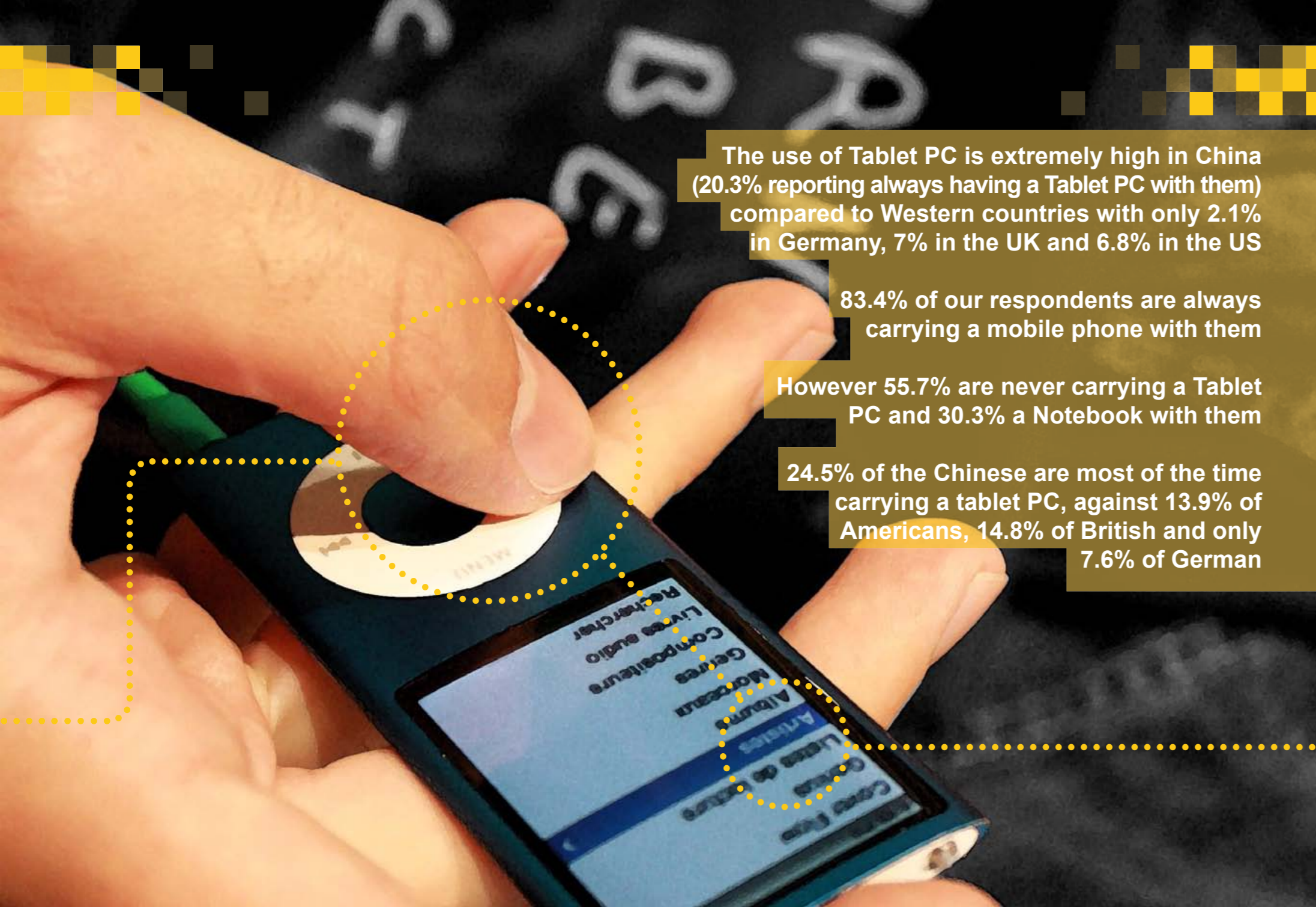
The use of Tablet PC is extremely high in China (20.3% reporting always having a Tablet PC with them) compared to Western countries with only 2.1% in Germany, 7% in the UK and 6.8% in the US

83.4% of our respondents are always carrying a mobile phone with them

However 55.7% are never carrying a Tablet PC and 30.3% a Notebook with them

24.5% of the Chinese are most of the time carrying a tablet PC, against 13.9% of Americans, 14.8% of British and only 7.6% of German

Finding 3: Always on Lifestyle

The need for mobile data traffic is increasing significantly. Digital Natives take this need to an extreme with their demand to be CONNECTED 24/7, WHENEVER and WHEREVER they are. Smartphones in particular enable an "ALWAYS-ON", mobile lifestyle, which allows a high level of flexibility and spontaneity with less forward planning.

Technologies have permeated ALL SPHERES of the Digital Natives' lives and they are OMNIPRESENT. But with the integration of all sorts of technologies into their lives from early childhood and abilities for MULTITASKING and FAST COMMUNICATION STYLES, they have developed and shaped their daily behavior.

- Digital Natives demand to be CONNECTED 24/7, WHENEVER and WHEREVER
- "ALWAYS-ON" LIFESTYLE
- Mobile lifestyle driven by an "ON THE FLYNESS" MENTALITY
- Flexibility and spontaneity with less planning

> "I'm an information junkie. I need to be online to know what's going on, be it current events or what's happening in my circle of friends."

*What devices do you normally carry around?

Legend:
- Video camera (not integrated in cell phone)
- Camera (not integrated in cell phone)
- Notebook
- Tablet PC
- Music player
- Cell phone

(Categories: CN, UK, USA, GER)

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Finding 4: Riding the technology wave

Digital Natives want to RIDE THE TECHNOLOGY WAVE and be AHEAD of their peers. 91% of the Chinese respondents report they want to be at the forefront of progress using the latest technologies, against 84% in the US, 81% in the UK, but interestingly only 67% in Germany.

Digital Natives are GLOBALLY CONNECTED, FLEXIBLE, COLLABORATIVE

32.6% feel inefficient and cannot keep up with the pace of life without technologies

60.8% also feel cut off from their friends and miss out on a large part of their life without technologies

> " Being at the forefront of technological development is a good feeling - like riding the technology wave. [...] Being at the leading edge conveys the feeling of being able to have an impact. "

Bar chart legend:
- Disagree completely
- 2
- 3
- 4
- Completely agree

Categories: USA, UK, CHINA, GERMANY

New technologies...... allow me to be at the forefront of progress

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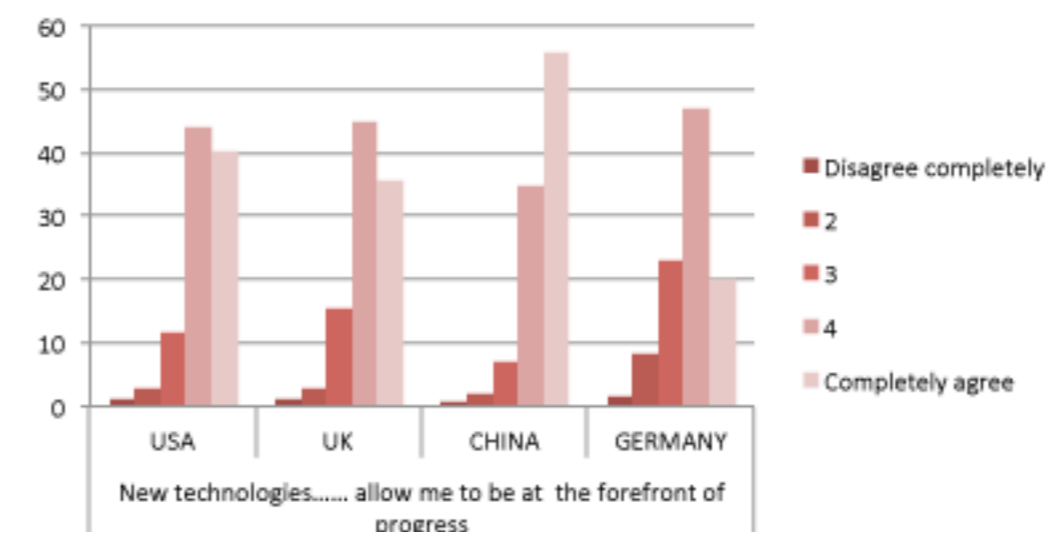
35.7% DISagree to strongly DISagree that new technologies put them under pressure and intimidate them

FINDING 5: DIGITAL DIET

POSITIVE associations towards the identification with NEW TECHNOLOGIES are rated in China the highest followed by UK, US and finally Germany. 90% of the Chinese respondents, followed by the US and UK with 68% and 63%, agree technologies ADD SPICE to their lives and are EXCITING.

Although 86% of American respondents claim that they get ADDICTED to the latest technologies, NEGATIVE FEELINGS are rarely associated with having the latest technology. Only between 10% (Germany) to 23% (UK) of Digital Natives claimed that technologies PUT PRESSURE on them or are INTIMIDATING. Nevertheless, experts observe that, due to the increased pressure of always being updated and connected, more and more people have the need to find REFUGE FROM TODAY'S INFORMATION AGE, for example by taking sabbaticals, or simply by having an iPhone-free Sunday.

New technologies...... put me under pressure and intimidate me

Legend: Disagree completely, 2, 3, 4, Completely agree

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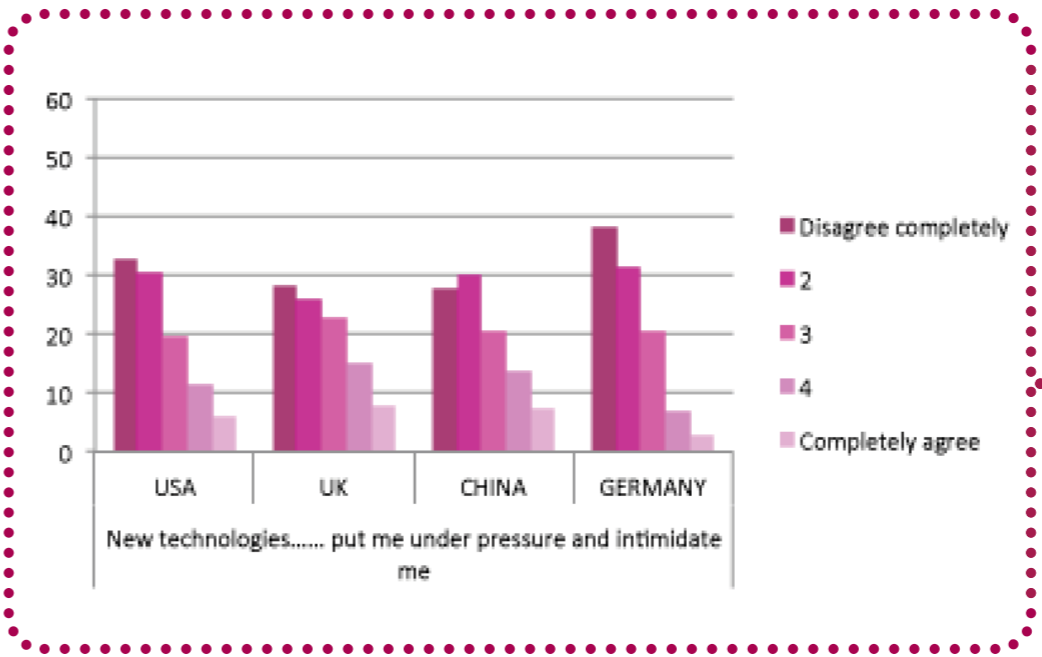
Finding 5: Digital Diet

When they were asked to live WITHOUT technologies, it feels like a PUNISHMENT and being on a DIET:

• EXACT PLANNING BEFOREHAND and STICKING TO THESE PLANS suddenly become a 'must'

• Most Digital Natives expressed a SENSE OF HELPLESSNESS and FELT ISOLATED FROM FRIENDS (70% China, 64% USA, 63% UK, 46% Germany).

• They MISS the outside world of information and the CONTINUOUS FLOW/INPUT OF INFORMATION (69% China, 52% Germany & USA, 48% UK)

• SHORT BORING WAITING PERIODS could not be BRIDGED with "RANDOM" INFORMATION INPUT

> **55.1% AGREE TO STRONGLY AGREE THAT WITHOUT TECHNOLOGIES THEY CANNOT KEEP UP WITH LIFE**

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Technology's become a NEW SORT OF EXTREMITY

FULL ADAPTATION from the very beginning and a very NATURAL and EASY way of HANDLING the variety of technologies
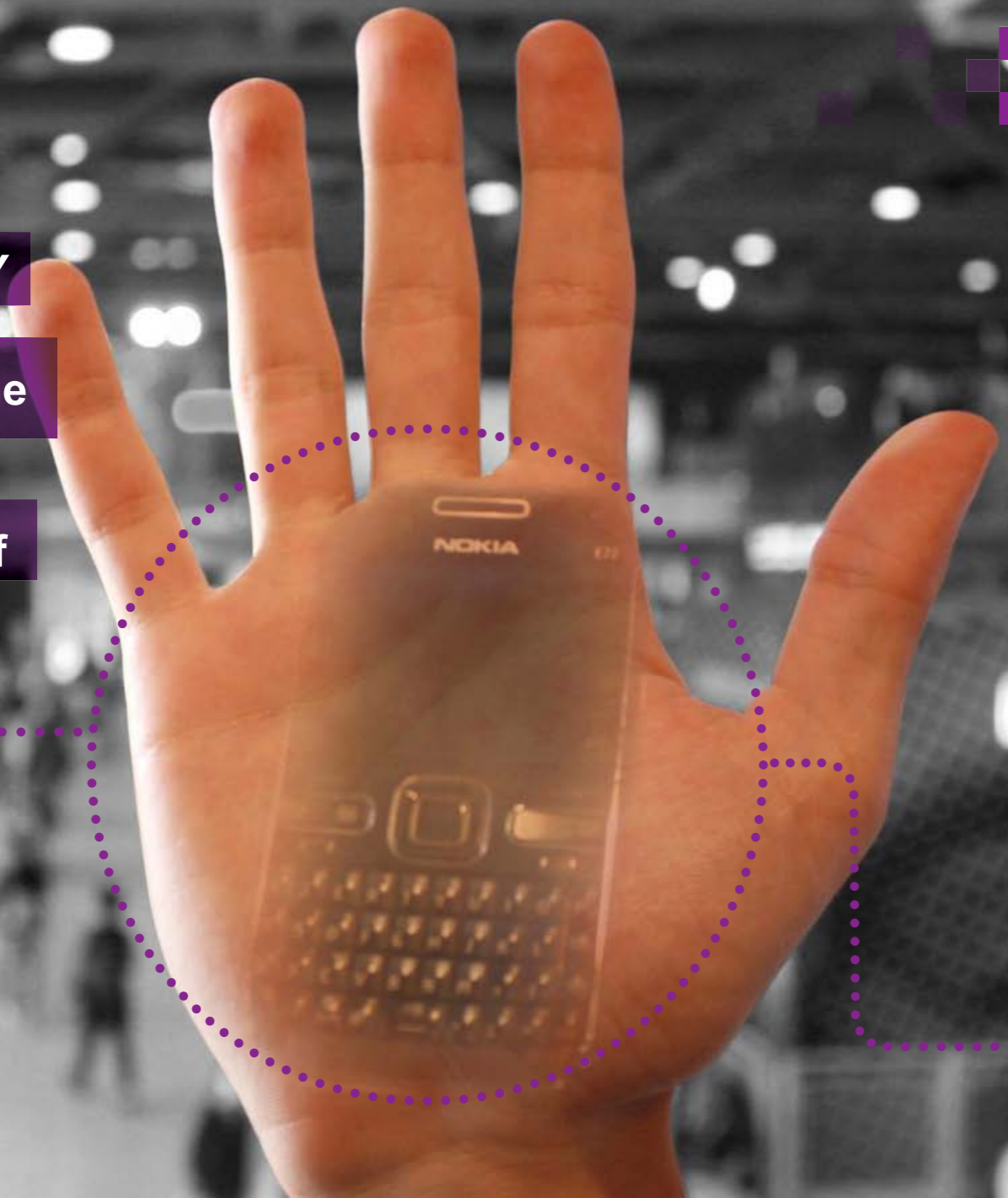
Finding 6: Technology: a continuation of evolution

Digital Natives have grown up with all kinds of breakthrough technologies over the decades, starting with the 'walkman' in 1979, the CD in 1982, the first mobile phone in 1983, the internet, which became popular around 1993, and more recently the introduction of portable devices like MP3 players and smartphones However, with the availability of a multitude of "apps", technology and has become tailored to individual needs. The result is that technology has been fully integrated into the lives of Digital Natives. They have developed an innate understanding of digital and computer technologies, which have evolved into essential parts of their daily lives.

Technology has become a NEW SORT OF EXTREMITY. Without technologies, Digital Natives feel like an essential part of their body has been cut away. Therefore, technology has now become more than a useful tool - it is an essential part of the life.
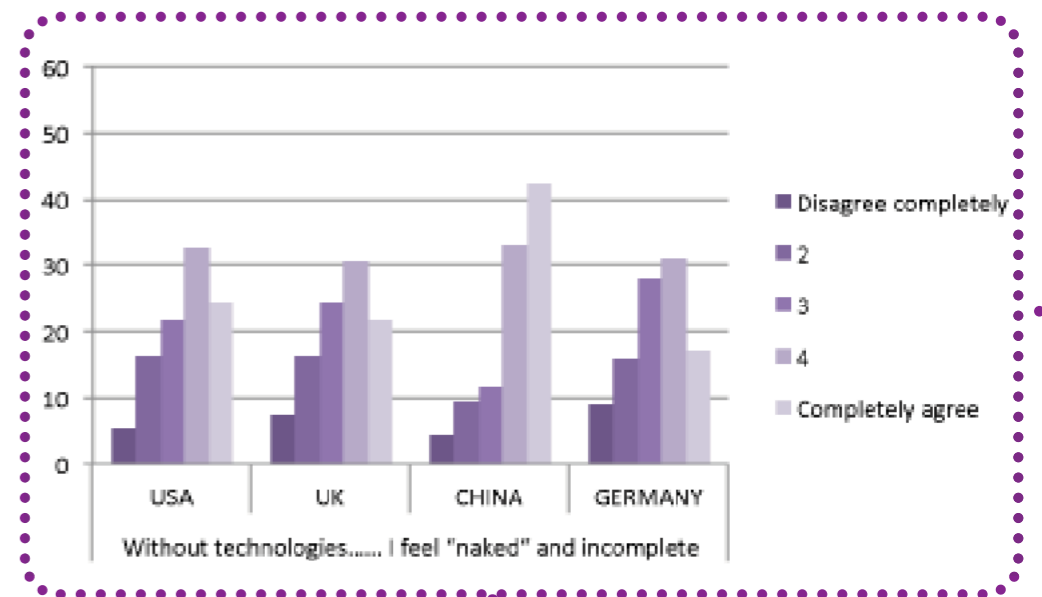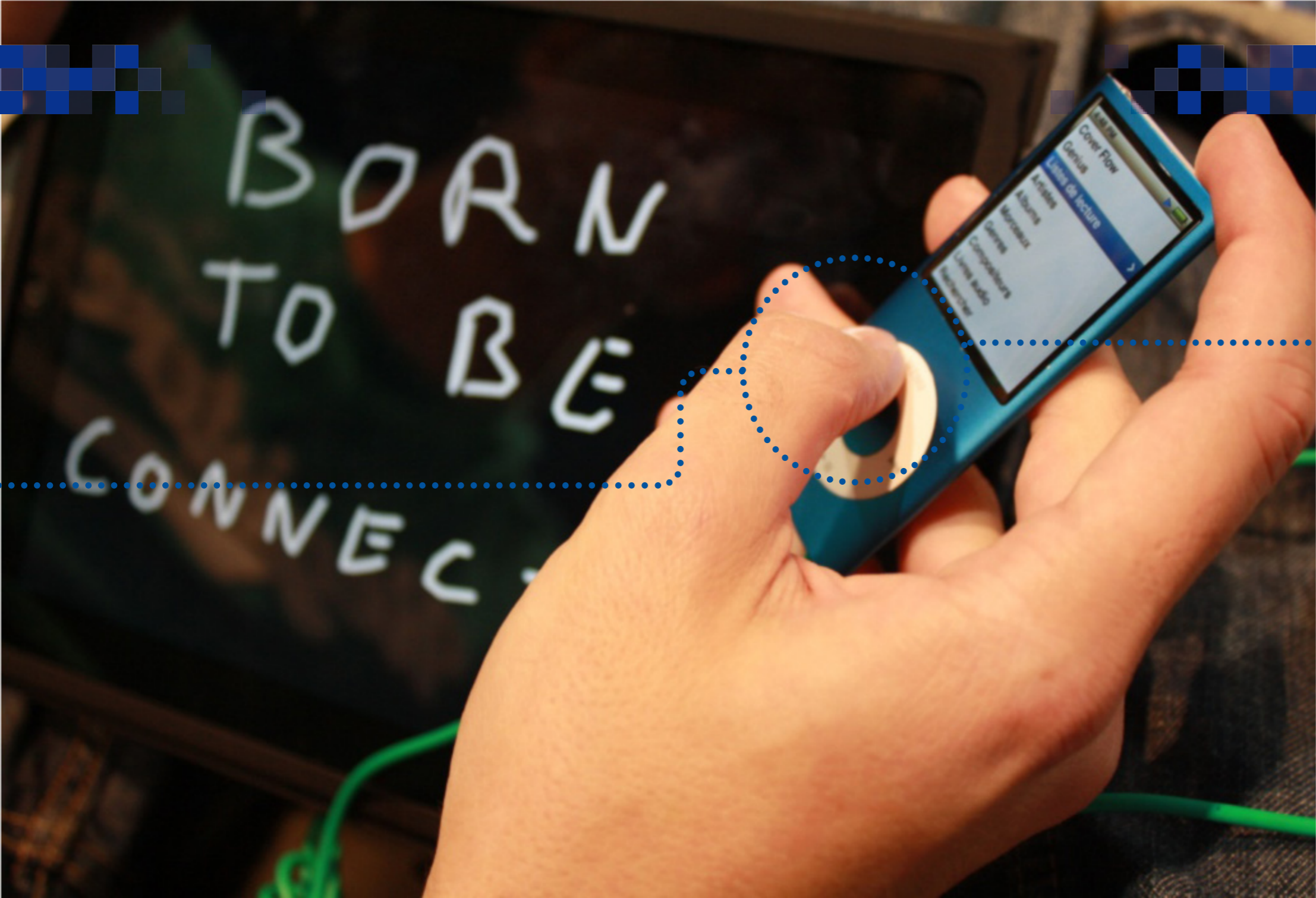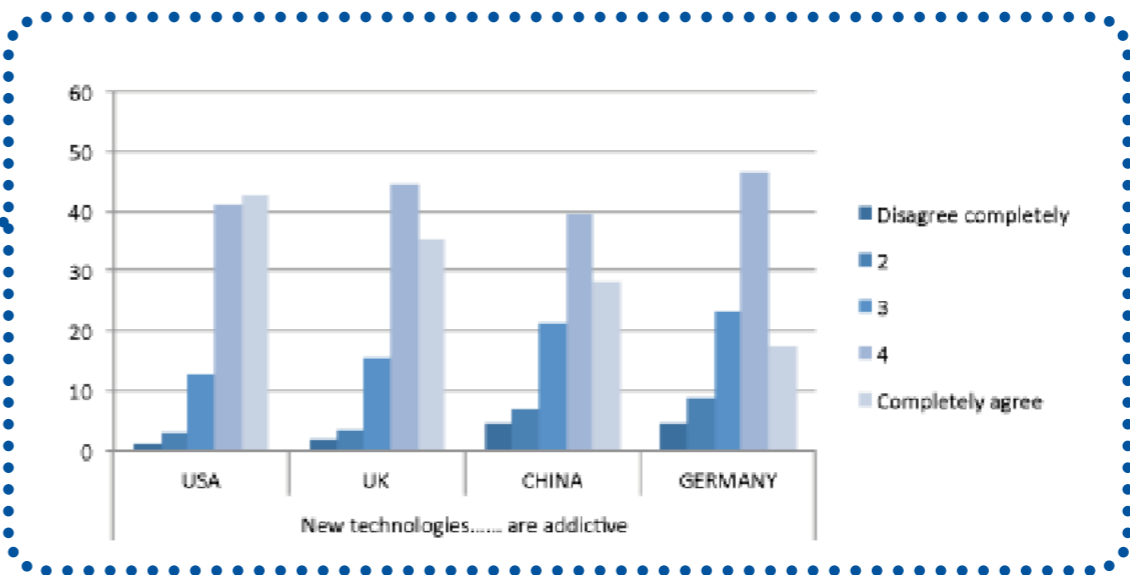
Without technologies....... I feel "naked" and incomplete

Legend:
- Disagree completely
- 2
- 3
- 4
- Completely agree

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Finding 7: Addiction to technologies

73.6% agree to completely agree that new technologies are addictive

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Finding 7: Addiction to technologies

US

For 84% of the American respondents new technologies allow them to be at the forefront of progress.

	Completely agree	4	3	2	Disagree completely
New technologies are addictive.	42%	41%	12%		1%
New technologies allow me to be on the forefront of progress.	40%	44%	12%		1%
New technologies put me under pressure and intimidate me.	6%	12%	19%	30%	33%
New technologies add "spice" to my life and make it exciting.	26%	42%	22%	7%	2%
Without technologies I feel "naked" and incomplete.	24%	32%	22%	16%	5%
Without technologies I feel "cut-off" from my friends.	28%	36%	20%	11%	5%
Without technologies I am inefficient and cannot keep up with the speed of life.	20%	32%	24%	14%	9%
Without technologies I feel free and relieved.	10%	22%	29%	22%	16%

Finding 7: Addiction to technologies

UK

For 63% of the British respondents without technologies they feel cut off from their friends.

	Completely agree	4	3	2	Disagree completely
New technologies are addictive.	35%	44%	15%		3%
New technologies allow me to be on the forefront of progress.	36%	45%	15%		3%
New technologies put me under pressure and intimidate me.	8%	15%	23%	26%	28%
New technologies add "spice" to my life and make it exciting.	24%	39%	30%	5%	2%
Without technologies I feel "naked" and incomplete.	22%	30%	24%	16%	7%
Without technologies I feel "cut-off" from my friends.	28%	35%	19%	13%	5%
Without technologies I am inefficient and cannot keep up with the speed of life.	20%	28%	25%	19%	9%
Without technologies I feel free and relieved.	10%	26%	28%	21%	15%

Finding 7: Addiction to technologies

CH

For 90% of the Chinese respondents new technologies add "spice" to their life

	Completely agree	4	3	2	Disagree completely
New technologies are addictive.	28%	39%	21%	7%	4%
New technologies allow me to be on the forefront of progress.	56%	35%	7%	1%	1%
New technologies put me under pressure and intimidate me.	7%	14%	21%	30%	28%
New technologies add "spice" to my life and make it exciting.	51%	39%	8%	0%	2%
Without technologies I feel "naked" and incomplete.	42%	33%	11%	9%	4%
Without technologies I feel "cut-off" from my friends.	33%	37%	17%	9%	4%
Without technologies I am inefficient and cannot keep up with the speed of life.	35%	34%	15%	9%	8%
Without technologies I feel free and relieved.	14%	24%	19%	24%	19%

Finding 7: Addiction to technologies

DE

For 52% of the German respondents without technologies they feel inefficient and keep up with the speed of life

	Completely agree	4	3	2	Disagree completely
New technologies are addictive.	17%	46%	23%	9%	4%
New technologies allow me to be on the forefront of progress.	20%	47%	23%	8%	2%
New technologies put me under pressure and intimidate me.	3%	7%	21%	31%	38%
New technologies add "spice" to my life and make it exciting.	9%	35%	35%	15%	6%
Without technologies I feel "naked" and incomplete.	17%	31%	28%	16%	9%
Without technologies I feel "cut-off" from my friends.	14%	32%	25%	19%	10%
Without technologies I am inefficient and cannot keep up with the speed of life.	18%	34%	25%	16%	8%
Without technologies I feel free and relieved.	7%	18%	35%	26%	14%

Finding 8: Internet, the backbone of their lives

Digital Natives refer to the INTERNET as the KEY technology supporting their lifestyle

The internet is a backbone of their life. They spend on average 27.3% of the communicating with friends and 20.1% on their hobbies and special interest sites. 18.7% of their time is spent on business related and educational content and 16.6% on game related activities, leaving 17.3% for on line shopping and consumer related sites.

The internet has become a major driver of change within today's developed societies and Digital Natives regard the INTERNET as the KEY technology supporting their lifestyle. The internet is the very "BACKBONE" that connects the various aspects and spheres of life (from online dating, lectures, and data storage to online shopping). SMARTPHONES, supported by the internet and wireless connectivity, provide access the internet 24/7.

The differences are not so much what the Digital Natives do with the internet, but HOW they do it. Digital TECHNOLOGIES and the INTERNET are LINKED and communicate with each other. SHARING UPDATES, INFORMATION and COMMUNICATION are shifting from personal towards MASS COMMUNICATION.

> **The internet is the "BACKBONE" that connects the various aspects and spheres of life**

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Finding 9: Information overflow

Digital Natives are confident that ANY INFORMATION can be found "SOMEWHERE" on the INTERNET. Obtaining information is not considered an issue but WHAT TO DO with it and HOW TO PROCESS it is a challenge. If Digital Natives cannot capture the information right away, they tend to look for another source which is easier or faster to grasp.

INTELLIGENT FILTERS and ALERT SYSTEMS are solutions that will grow in importance and support INTELLIGENT SEARCHING of the internet and bring order to information overload.

> "Access to the internet and filtering capabilities must be fast and reliable"

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Finding 10: Internet: a social connection

Digital Natives state that whenever they use their mobile phone for leisure they inevitably see incoming business mails.

While phones and notebooks have created a FUSION of the BUSINESS and SOCIAL sphere, blurring the boundaries between life and work, social connections remain the main purpose of internet use.

During a normal week, how much of the time you spend with internet-related technologies (stationary and mobile) is related to the following five purposes?					
	GER	USA	UK	CN	Average
social / friends / family	23.6%	29.1%	30.3%	26.0%	27.3%
commerce / shopping / consumption	13.9%	17.1%	17.9%	20.2%	17.3%
hobbies / special interests	19.3%	20.1%	17.8%	23.0%	20.1%
business / education / information	25.7%	15.5%	16.0%	17.6%	18.7%
entertainment / diversion	17.5%	18.1%	17.8%	13.1%	16.6%

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Finding 11: Digital divide

Social technologies, such as social networking sites, create a "DIGITAL DIVIDE" between those who have assimilated new technologies and their friends and acquaintances who do not access them.

As a consequence, people who are NOT using the VIRTUAL WORLD and do not present their profiles in various social networks, will soon MISS THE BOAT and will not be an active member of such online communities. But that does not necessarily mean that they will lose contact. Due to "various channels" of communication Digital Natives cultivate social contacts, but are not willing to compromise FACE-to-FACE CONTACTS.

There is a DIGITAL DIVIDE between those who have assimilated new technologies and those who have not

> "On Facebook I have all friends and acquaintances in one place. [...] My entire life is on Facebook including photo story, text and diary"

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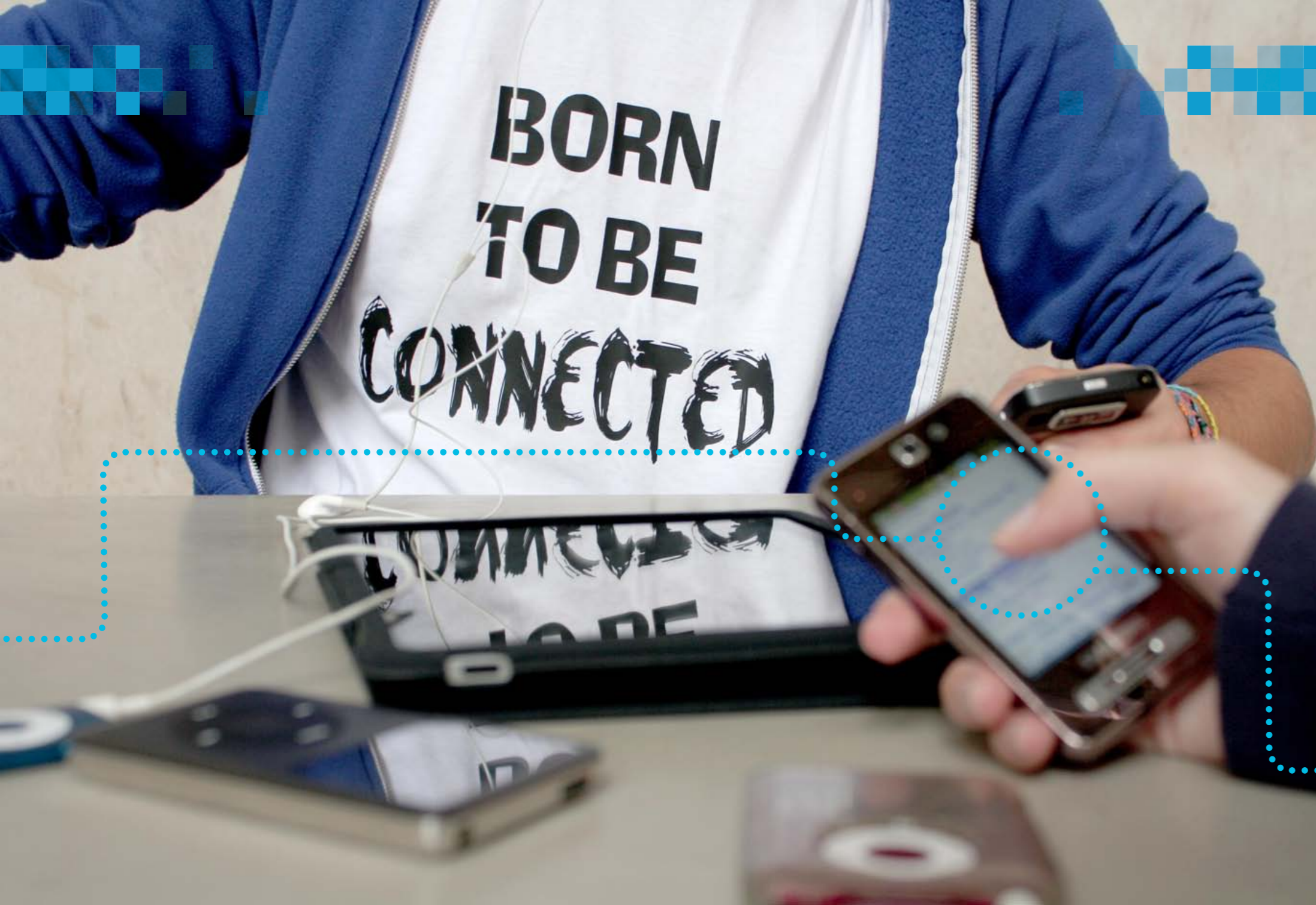
Finding 12: Communities of like-minded people

Digital Natives use the internet as a way to meet LIKE-MINDED people, who they would not find elsewhere to EXCHANGE INFORMATION and EXPERIENCE with.

Within these networks and communities USER-GENERATED CONTENT is shared and can be accessed by every user.

Platforms like WIKIS are kept alive and are regularly frequented by users who create and update content. The principle of user generated content is that it allows others to CRITICISE, ADD, IMPROVE and COMPLETE entries which works as a control mechanism and improves the accuracy of content.

The TEAM APPROACH of COLLECTIVE INTELLIGENCE supports the mindset that all information is out there. Otherwise a quick question into the CROWD will give an immediate answer to all questions.

An excellent and exclusive opportunity to create their network and community of friends

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Finding 13: Educated consumers

Communication tools and platforms, such as blogs, Twitter or Facebook, invite the sharing of opinions, experiences and information on a wider level, with a GLOBAL reach and often in real time. Those tools, along with apps that scan product barcodes to compare prices or ingredients etc. provide a greater level of TRANSPARENCY than ever before. The result is a better EDUCATED and well INFORMED CONSUMER that compares different offers and can get easier access towards detailed product knowledge. Often purchases depend on RECOMMENDATIONS given by other people or product reviews.

Digital Natives master the power of the internet to become intelligent customers

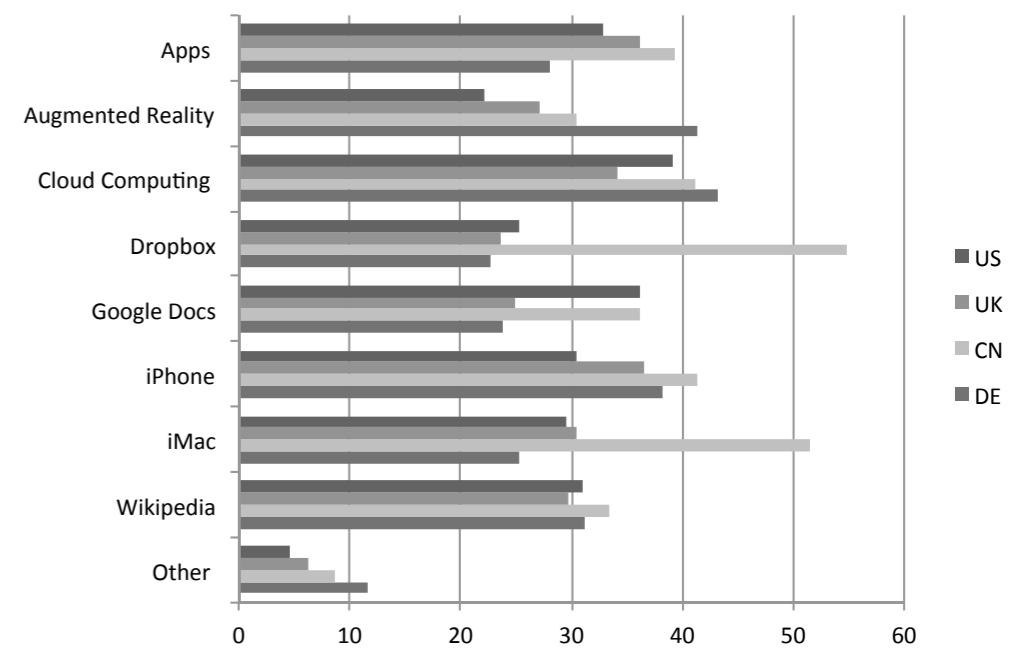www.globalworkplaceinnovation.com

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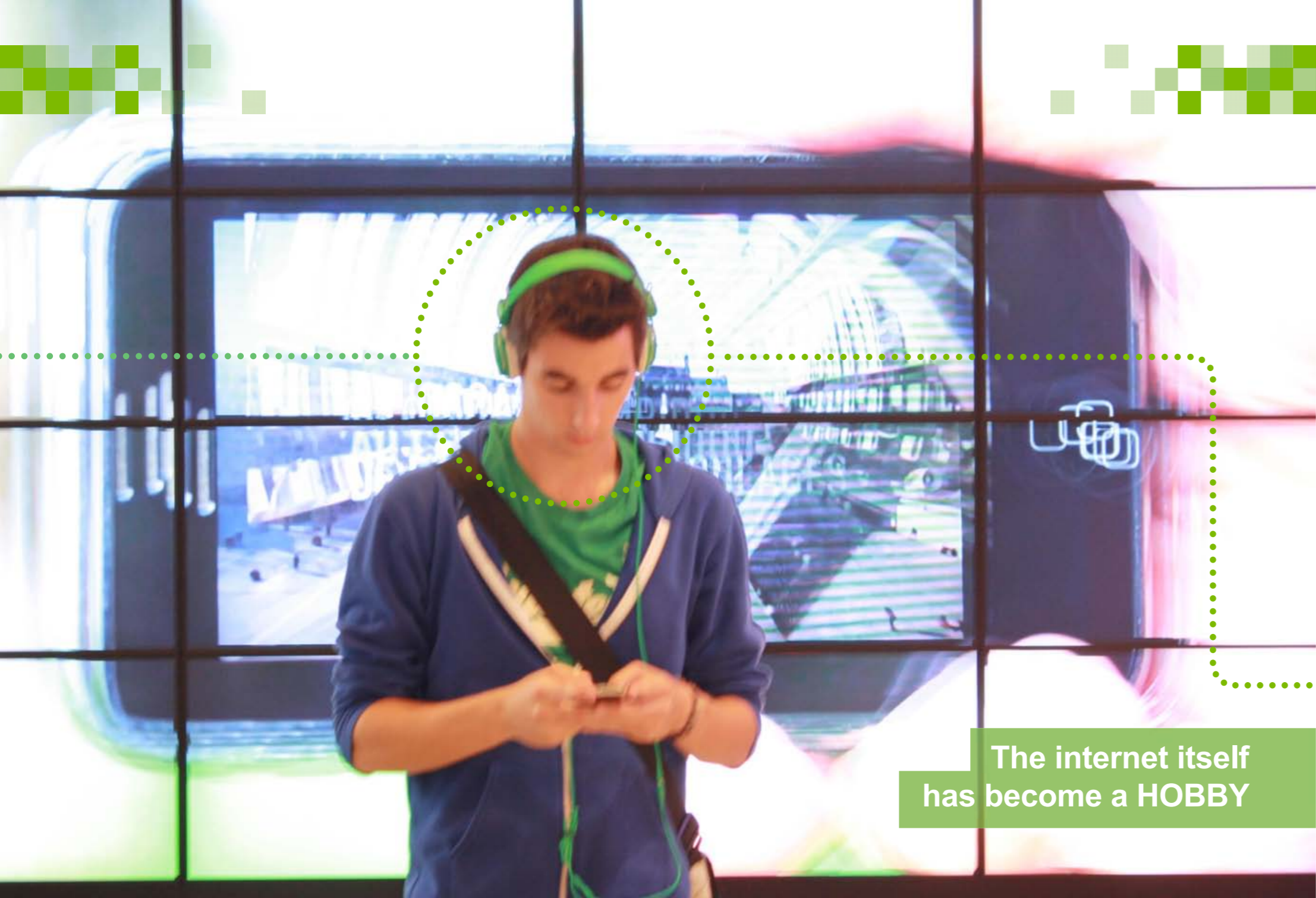
Finding 14: Carpe diem 2.0

The hobbies of Digital Natives generally do not differ from previous generations, but the internet itself has become a HOBBY and parts of their spare time is spent in the VIRTUAL WORLD.

GAMING has taken a more significant role within society. Improvements in technologies has created a VIRTUAL world that is almost identical to the REAL WORLD. These two worlds are increasingly connected. Highly developed virtual worlds reach a level which increasingly connect all HUMAN SENSES when interacting with media and technology. Most downloaded apps: Fun, Game, Entertainment

Games and the virtual world allow people to create DIFFERENT IDENTITIES and experiment beside the real world identity with different profiles and personalities.

The internet itself has become a HOBBY

Which of the following products and technologies could/should designers of workplace learn from?

Apps
Augmented Reality
Cloud Computing
Dropbox
Google Docs
iPhone
iMac
Wikipedia
Other

0 10 20 30 40 50 60

US
UK
CN
DE

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53.5% of our respondents are satisfied to completely satisfied with the advanced technologies they have in the workplace. We found that only 5% are not satisfied

The Chinese respondents are the most satisfied with 67.2% against the American with only 46.7%

59.8% of the respondents are satisfied to completely satisfied with their current workplace provisions.

18.3% of the Americans, 16.1% have reported a low level of satisfaction with their workplace % of the German and 16.2% of the British, demonstrating major weaknesses in the workplace
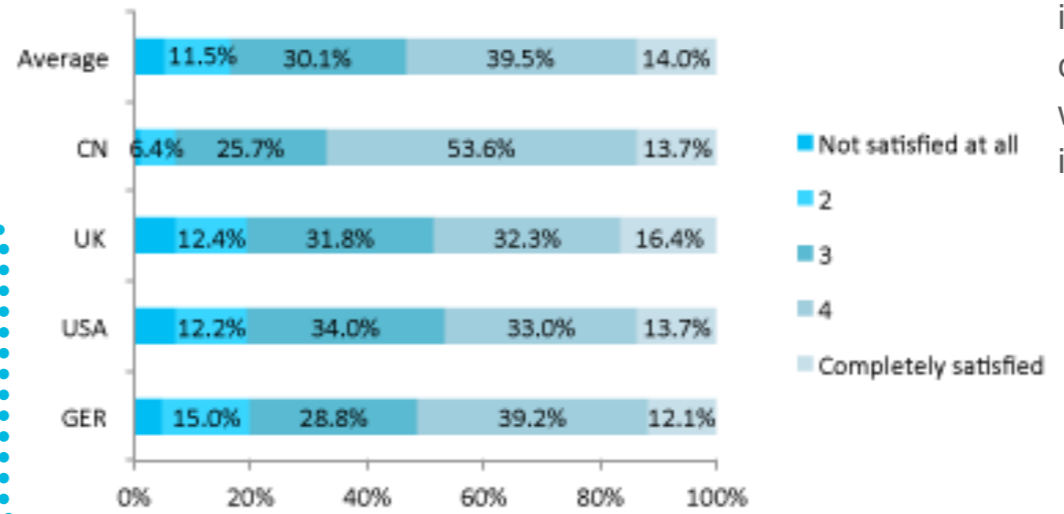
BORN TO BE CONNECTED

Conclusion: Impact on the workplace

In their private lives Digital Natives are used to a high degree of CONNECTIVITY. Digital Natives quite naturally expect any information to be in sync – ANY TIME, ANYWHERE. Quite often the two spheres "SOCIAL" and "BUSINESS" BLUR in Digital Natives' lives, as they often use the same HARDWARE/DEVICE (e.g. iPhone) or SOFTWARE for both work and pleasure.

How satisfied are you with your current workplace in general? Please refer to the place you work, not your job itself.

Digital Natives often criticize the low standard of GENERAL BASIC TECHNOLOGICAL EQUIPMENT at work which negatively impacts their workflow. In particular, faster computers, more frequent software updates and higher internet speeds are asked for. Digital Natives do NOT DOCUMENT but rather tend to search for information. They are confident that the INFORMATION IS SOMEWHERE - on their computer or on the internet so they do not feel the need to meticulously manage it. Within the workspace a lot of work is done offline. TRANSFERRING this DATA from 3D SPACES into 2D digital data formats is a frequently mentioned challenge. Usually, they report that this challenge coincides with a LOSS OF INFORMATION as there is a "spatial" information that is DIFFICULT TO MAP in 2D.

	Not satisfied at all	2	3	4	Completely satisfied
Average	11.5%	30.1%		39.5%	14.0%
CN	6.4%	25.7%		53.6%	13.7%
UK	12.4%	31.8%		32.3%	16.4%
USA	12.2%	34.0%		33.0%	13.7%
GER	15.0%	28.8%		39.2%	12.1%

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Digital Natives: A New Generation Enters the Workplace

1 - **A mixed private and work life:** no boundaries between their professional and private lives

2 - **Cloud dependent:** strong dependency on and addiction to the internet – USE of dropbox, moodles, Google docs, Open Atrium and DENY wikis and webtop applications

3 - **Zoom in and zoom out mode:** MULTITASKING is core to their behavior and with multitasking comes an intensive use of technologies (3 screens or work surfaces) and intensive period of concentration on one screen

4 - **Leading-edge technologies and applications:** strong RELIANCE on the latest technologies to be more efficient

5 - **Synchronization:** rapidity of synchronization is key to their efficiency, as far creating a complete FUSION of their technologies

Digital Natives are the generation born during or after the general introduction of digital technology. While individuals from elder generations recall organizing, planning and interacting with one another without mobile devices, computers or the Internet, Digital Natives have been using these technologies since their early years.

Digital Natives are a tech-savvy generation at the forefront of technological progress. They desire to be connected when they wish, from anywhere. Now graduated from secondary education, the first generation of Digital Natives is entering the workplace – and transforming it forever.

Digital Natives primarily use the Internet for social networking, followed by business and entertainment purposes.

Technology has been integrated into the lives of Digital Natives since early childhood, providing them with the skills to naturally adapt to it from a young age. They have developed an innate understanding of digital and computer technologies, which have evolved into essential parts of their daily lives. The backbone of the digital technology regularly used by Digital Natives is the Internet. It connects the various spheres of the digital realm, such as news and information, social networking and education. Smartphones and mobile devices with Internet access support the Digital Natives' need to always be connected with immediate access to information and social networks, anywhere at anytime.

Over the past two decades, the Internet has evolved from a source of information, to a vehicle for individuals to share knowledge and experiences with peers via email, blogs, forums, or social platforms.

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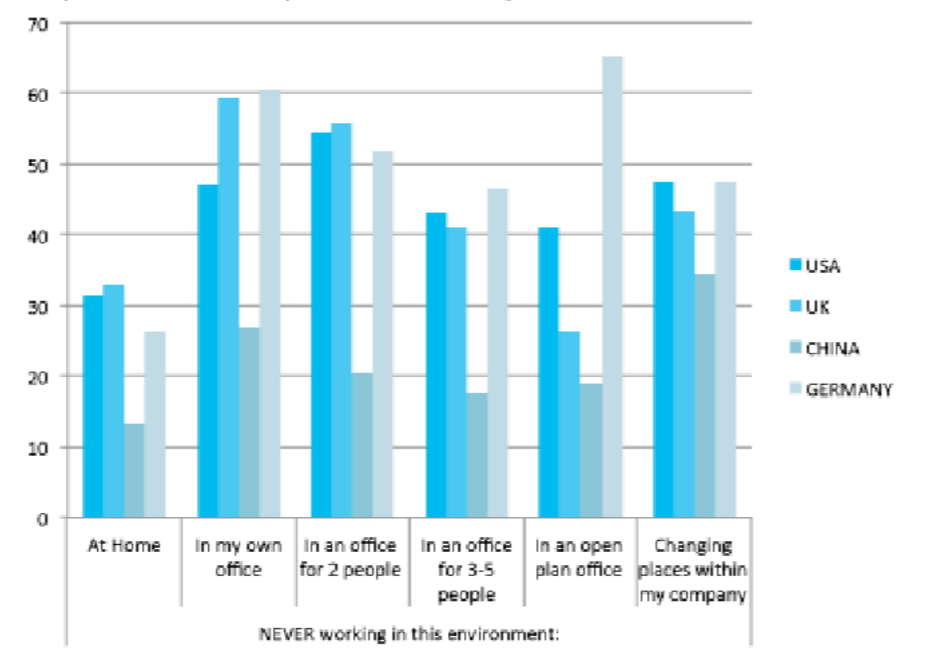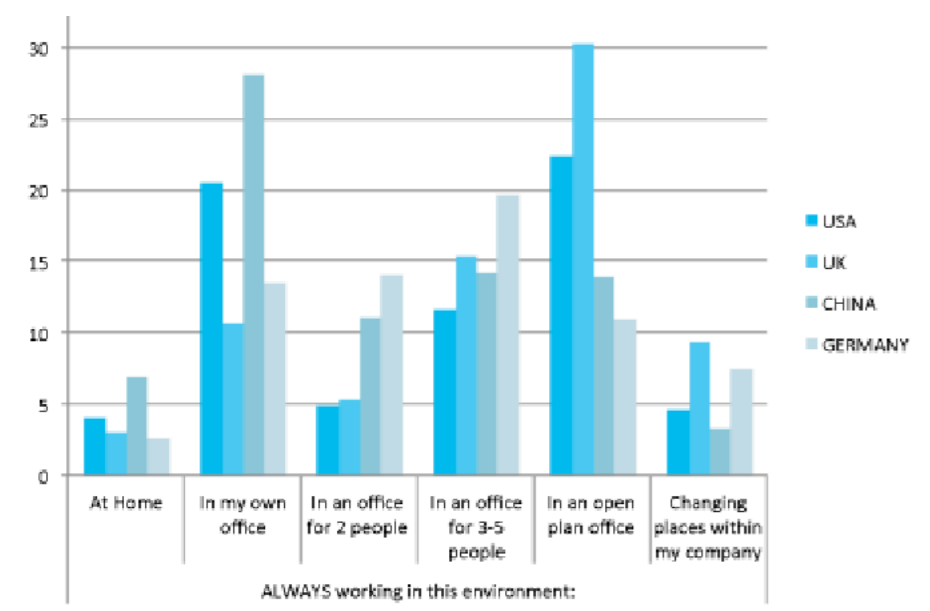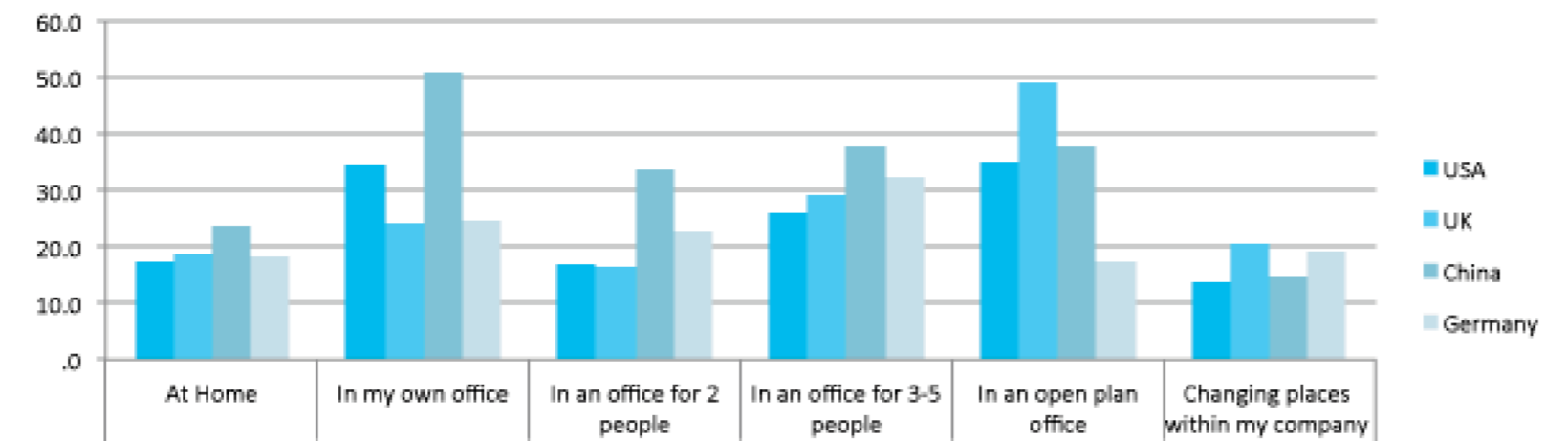# How will Digital Natives change and enhance the workplace?

New ways of communicating: Before the advancement of digital technology and social networks, people typically communicated with the same few groups of peers. As connectivity continues to increase, people have become more self-reliant and resourceful while interacting with one another on a broader scale in the virtual world. For Digital Natives, the intensity and diversity of interactions with virtual like-minded people has increased considerably, as they share ideas and collaborate with peers on a global level.

This higher level of experience, knowledge and information resulting from consistent use of digital media has also impacted purchasing behaviors, as consumers become increasingly educated and empowered. When asked to define itself, the Digital Native generation responded with, "We are Apple and we do Facebook." To this generation, Facebook is an indispensible social link to family, friends and groups, and Apple embodies technological progress, innovation and creativity.

New ways of working: As Digital Natives enter the workforce, they will infuse companies with a new work culture conducive to a generation more adept at incorporating technology into their personal and professional lives than previous generations. Organizations have an opportunity to leverage this level of knowledge by encouraging Digital Natives to share it with elder coworkers. These technological skills can also be harnessed to improve workplace efficiency and significantly increase productivity. While most Digital Natives indicated they are satisfied with their current work environments, the study revealed several areas for improvement of technology in the workplace.

The survey findings uncovered the following needs:

- Increased access to technology;

- Cloud computing for faster, more efficient information sharing with colleagues and peers;

- Internal knowledge management to support collaboration;

- A more comfortable working environment, as the lines between work and private life blur; and

- A more sustainable working environment.

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Where do you work?

60.0 / 50.0 / 40.0 / 30.0 / 20.0 / 10.0 / .0

At Home | In my own office | In an office for 2 people | In an office for 3-5 people | In an open plan office | Changing places within my company

■ USA
■ UK
■ China
■ Germany

ALWAYS working in this environment:

■ USA
■ UK
■ CHINA
■ GERMANY

NEVER working in this environment:

■ USA
■ UK
■ CHINA
■ GERMANY

Digital Natives: Same same, but different

Technology and collaborative spaces

One preference that Digital Natives and elder generations have in common is the need for workspaces that can support teamwork - a commonality that will help the differing age groups easily collaborate in the workplace. This shift to working in virtual teams using a range of technologies is tied to a decrease in the amount of time that office workers expect to spend at their desks, on the phone, or in traditional meeting rooms.

A separate Johnson Controls study of 1,700 respondents (Collaboration 2020: Hype or Competitive Advantage?) revealed that office workers across several generations expect to spend more time working in team environments with collaborative technologies.

Although Digital Natives have many of the same needs as previous generations, they are different in how they approach daily work, communicate and integrate technology into their lives. If addressed correctly, this new generation can help increase productivity by helping colleagues use technology more efficiently and effectively. The technology gap between generations will lessen as elder generations learn to embrace and understand new technologies like their Digital Native peers. Digital Natives' higher level of intuition when it comes to technology, coupled with the fact that new products are easier to use than their predecessors, means that integration with technology will be less of an issue for all generations. Companies are challenged to create a balanced working environment that attracts Digital Natives, without excluding other generations. The key is to find the proper combination of technologies, while keeping working processes simple.

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Digital Natives: Same same, but different

77.3% report that advanced technologies in their workplace is important to very important. The Chinese have reported a high level of satisfaction with current provisions, followed by the German, then the Americans and finally the British.

53.5% of our respondents are satisfied to completely satisfied with the advanced technologies they have in the workplace. We found that only 5% are not satisfied. The Chinese respondents are the most satisfied with 67.2% against the American with only 46.7%.

How much need for improvement do you see for the following aspects at the workplace (Rate from 1 = none to 5 = a lot)

Improvements	GER	USA	UK	CN	Average
Solutions to help me change between real-life work and virtual work (online or at my computer)	3.2	3.0	3.1	3.7	3.2
Technologies enabling convenient mobile working	3.7	3.3	3.2	3.8	3.5
Tools enabling flexible workplaces (for example at home and in the office)	3.7	3.3	3.3	3.8	3.5
Offers at the workplace allowing me to combine social life and business life	3.3	2.9	3.0	3.8	3.2
Easy-to-use internal knowledge management system	3.7	3.2	3.2	3.7	3.4
Workspace for offline collaboration with colleagues and partners (project rooms etc.)	3.7	3.0	3.1	3.7	3.4
Platforms for online collaboration with colleagues and partners (wikis, intranet etc.)	3.5	3.1	3.2	3.7	3.4
Tools to easily enter ideas and thoughts I have during the day	3.5	3.1	3.1	3.7	3.3
Online tools facilitating creativity	3.2	3.0	3.1	3.7	3.3
Offline tools facilitating creativity	3.3	3.0	3.1	3.7	3.3
Automatic information gathering, distribution and classification (automatic workflow management)	3.5	3.1	3.2	3.8	3.4
Easy synchronization of data and information	3.8	3.2	3.2	3.8	3.5
Sustainability at the workplace	3.7	3.2	3.2	3.9	3.5

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Born 2 B Connected

SAME, Same but DIFFERENT!
Digital Natives are the generation born during or after the general introduction of digital technology. While individuals from elder generations recall organizing, planning and interacting with one another without mobile devices, computers or the Internet, Digital Natives have been using these technologies since their early years. They are the same, but different from their previous generations.

While from early childhood onwards, Digital Natives integrated technologies into their lives they developed a skill to naturally deal with technologies. Digital Natives are a tech-savvy generation at the forefront of technological progress. They desire to be connected when they wish, from anywhere. Now graduated from secondary education, the first generation of Digital Natives is entering the workplace – and transforming it at a fast pace. Is the workplace industry ready to embrace change?
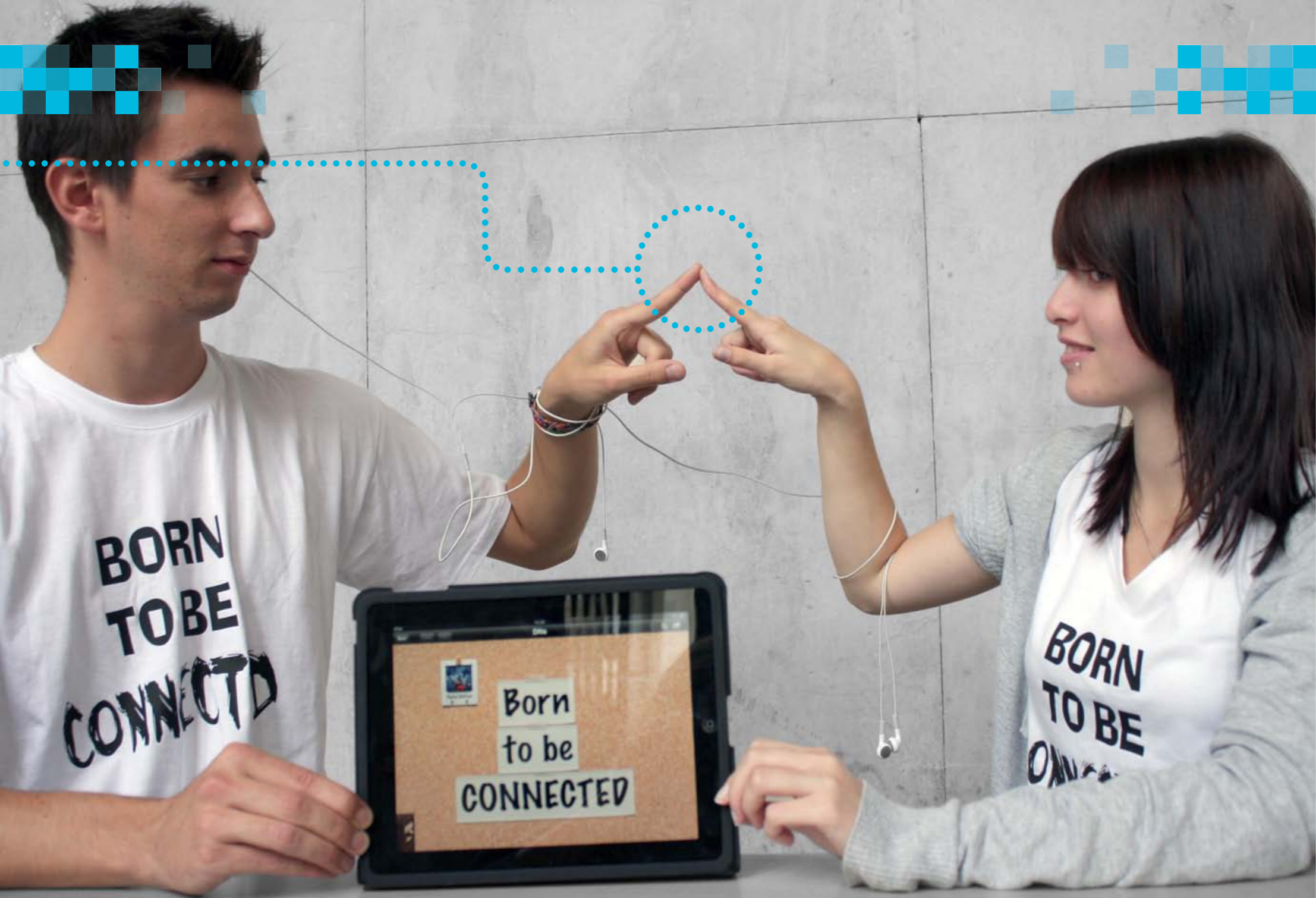
The results showed the Digital Natives did not consider their lifestyles to be much different when compared to previous generations, but that there were differences in how they interacted with technology and were "always on".

Digital Natives, are a self-confident group of employees now entering the workplace. They have basically the same needs as previous generations, but are DIFFERENT in:

•   How they APPROACH DAILY WORK

•   The way the INTEGRATE and USE TECHNOLOGIES and the INTERNET into their lives

•   How they COMMUNICATE and INTERACT with each other

Creating a working environment which both attracts the younger generation and does not scare away previous generations is a big challenge.

The main task for companies is finding the right balance of technology. It should be used as a supportive tool which is useful for ALL employees and GENERATIONS and does not overcomplicate ways of working and processes.

Speed
Efficiency
Transparency
Integration
Ease of use
Precision
Simplicity

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As Digital Natives enter the workplace as a technologically savvy culture, companies can consider the following tips for adapting the workplace to the needs of this new generation of workers

- **BYOT – Bring your own technology:** Digital Natives are comfortable bringing their personal equipment to the office, such as laptops, iPads, and smartphones

- **Always connected:** Promote the use of light portable and mobile technologies to allow for a high level of mobility and efficiency in the workplace

- **No loss of transition from home to work:** The smooth integration of technologies while in the office, such as WiFi access, booking systems, and 3G video conferencing, will allow workers to easily transition work from the office to their homes

- **Consumer technologies in the office:** Where possible, to move away from corporate IT solutions to consumer-friendly ones to take advantage of consumer technologies

- **Social networking-friendly solutions:** Allow workers to build and maintain a social network while at work to share knowledge and foster communities

- **Collaborative solutions:** Provide solutions that allow workers to collaborate with one another wherever they are, at any time

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Hannah is Global WorkPlace Innovation Manager working for Global WorkPlace Solutions. She joined Johnson Controls WorkPlace Innovation in 2010. As part of the research and development team, Hannah is responsible for trend research and roadmapping. The Global WorkPlace Innovation roadmapping project exists to highlight trends from the wider world, such as society, key vertical markets, technologies and the workplace, so that trends can be plotted chronologically in order to help plan for near and long-term threats and opportunities. Hannah has several years of experience in trend research and innovation. In 2006, she joined Johnson Controls, Automotive Experience Research and Innovation and conducted regular trend research project with an internal and global scope. Her focus has been on the translation of end-user needs into product solutions and concepts in collaboration with internal and external networks.

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Dr. Marie Puybaraud has been director of Global WorkPlace Innovation for Johnson Controls since 2004. She is an expert in the field of Workplace Innovation. The leading Global WorkPlace Innovation program she manages aims to make a fundamental contribution to understanding today's and tomorrow's workplace challenges, monitoring trends and sourcing innovative ideas and concepts, as well as systems to improve the way we work and how we collaborate within our workplaces. Marie is leading roughly 15 annual projects and initiatives to successful completion and disseminating the findings both internally across the global business and externally through marketing and communication activities. A regular speaker to the media at both a national and international level, but also to corporate clients, she combines her expertise and corporate experience to transfer knowledge to the audience and the wider community. She is an active member of CoreNet, a member of Property EU, Stars, Strathmore Who is Who, and the Continental Broadcast Network.

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