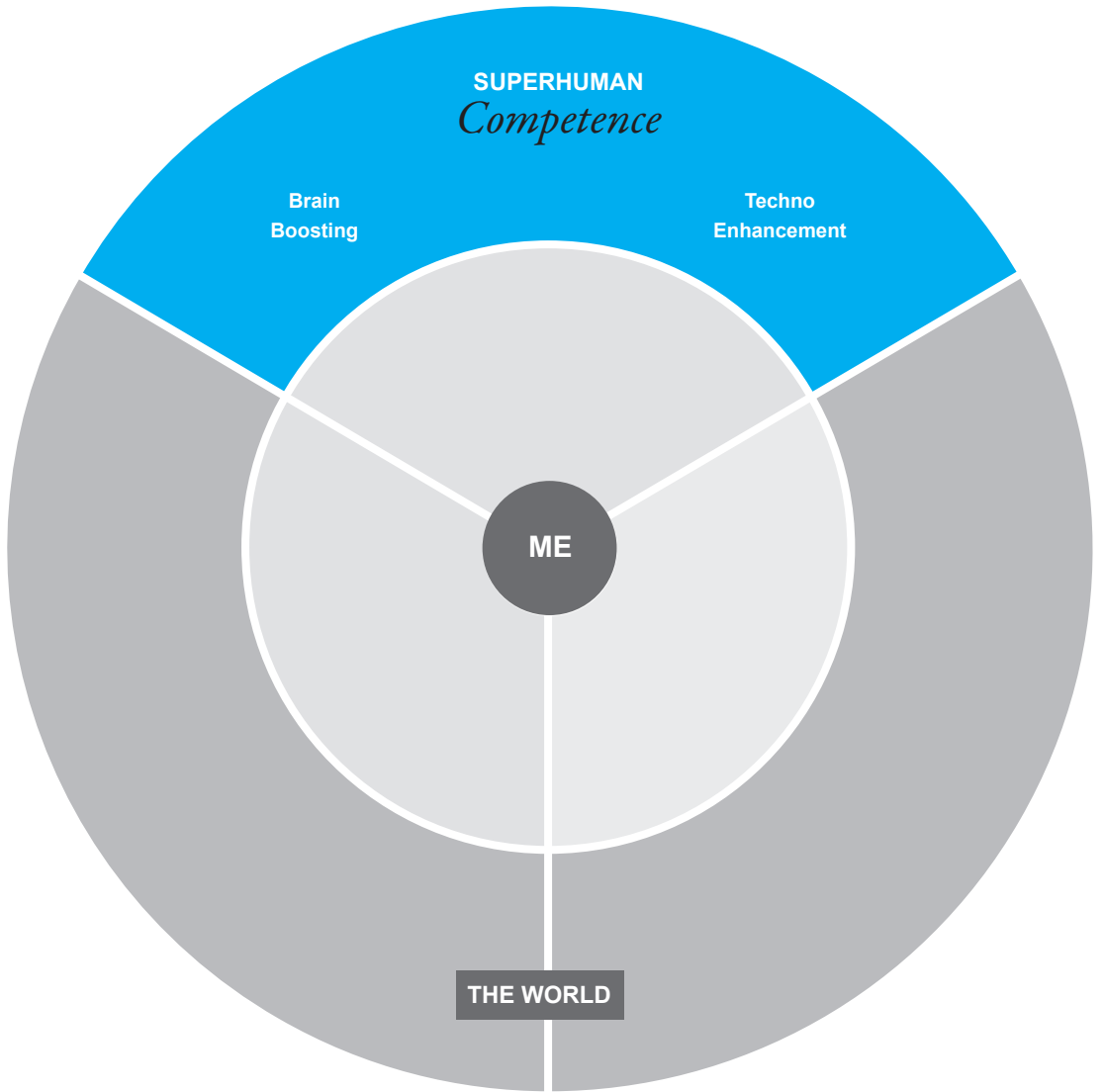


SUPERHUMAN

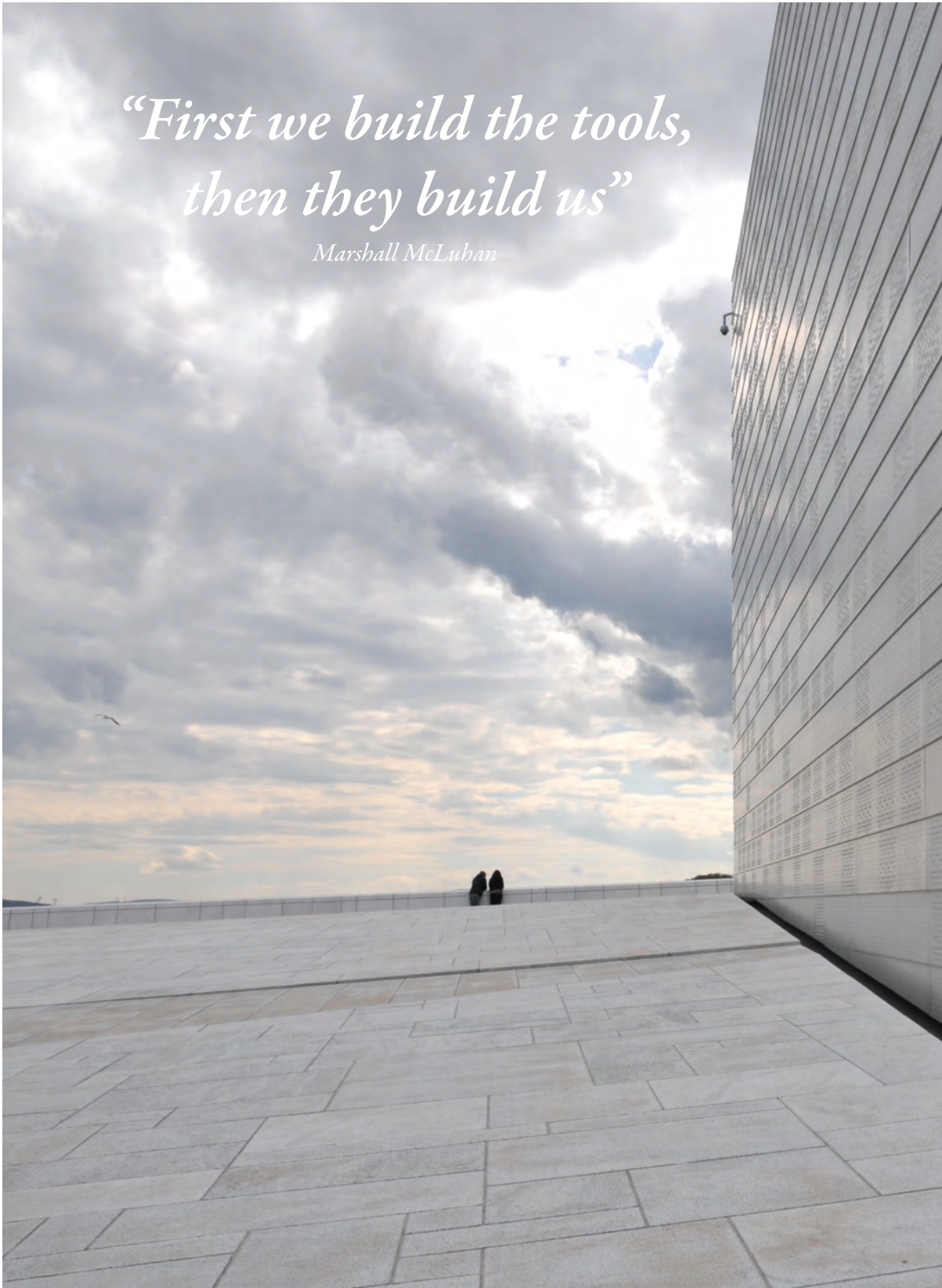


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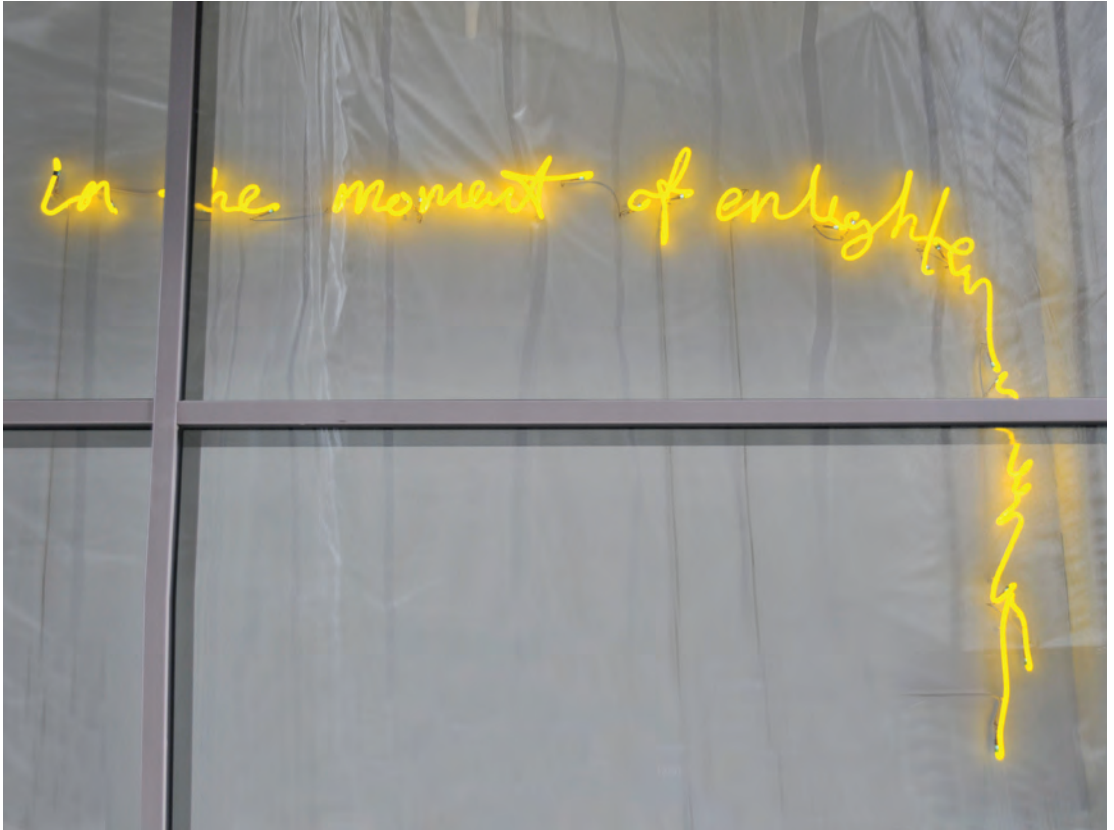
*“First we build the tools,
then they build us”*

Marshall McLuhan





Oslo Opera House 2009 - Photo: Harald Brekke



EMOTIONAL DRIVER: COMPETENCE

Competence is a moving target, requiring people to learn and develop new skills and ways of thinking in order to realise their true potential. People constantly update their mental capabilities by mastering technology seamlessly.

DEFINITION: SUPERHUMAN

In a world where global competition is a given, where kids become billionaires overnight, there is in parallel a lack of a job security, dwindling pensions, and the breakdown of financial systems. People need to display creativity and grow their competence to become self-reliant and be ahead of the game.

Achieving self-reliance is a challenge in the current climate. Individuals who want to thrive in a world of insecurity know it's not enough to be good at something – they have to be great. Through excellence in a chosen specialism, they build on their 'uniqueness' and can truly shine.

To compete and excel, the **Superhuman** trend is about people turning to **Brain Boosting** to develop their capabilities. Beyond skills, passion provides the USP needed to stand out in the creative society, so they work at not just knowing everything there is to know about their chosen specialism, but promoting it to a wider world. Being niche within the macro system reinforces independence.

Society is just beginning to grasp the potential that new technology offers in the quest for self-reliance, but this group is ahead of the game. Drawing on **Techno-Enhancement** aids to improve personal and working lives, they are creating bottom-up systems and technologies that adapt and learn in order to enhance or address the needs of their maker's personality.

Brain Boosting and **Techno-Enhancement** reflect people's need to realise their full potential in order to seize the opportunities and stand out from the crowd in a globally connected society.

“Through excellence in a chosen specialism, they build on their ‘uniqueness’ and can truly shine.”



INSIGHTS

GENERATION D(IGITAL): “Students today are all ‘native speakers’ of the digital language of computers, video games and the internet,” says Prensky. *Future:Poll 2010*

THE GOOGLE GENERATION: “In a do-it-yourself world the Google Generation are all librarians, publishers and journalists. They don’t expect to be fed information from anyone – they just hit the net.” *Professor David Nicholas, University College London (UCL), 2010*

VIDEO CASTING: “Sometimes I use YouTube to help with homework. I had to do a project on Edgar Allen Poe in 7th grade and I found a video of one of his poems on YouTube. I’d rather watch a video of a poem than read it.” *Anthony Perez, 15, San Francisco - LS:N Global 2010*

INFINITE HISTORY: This project is the result of several years’ work in collecting interviews from distinguished individuals whose work has shaped and been shaped by the institution. The interviews are accompanied by an interactive media player that incorporates text transcripts of the talks; hyperlinked to allow the viewer to jump directly to the appropriate portion of the video when any of the words are clicked. *MIT 150, Infinite History 2010*

DIGITAL ID: The Obama administration is looking into a new cybersecurity system that involves giving unique online identities to all its citizens. This trusted, digital identity will be different in nature to a national ID card and aims at increasing the online security and privacy of people. *Commerce Secretary Gary Locke, Stanford Institute for Economic Policy Research 2010*

SMART GAMING: Researchers from UK-based Teachers Investigating Educational Multimedia found that playing videogames improves the development of mathematics, spelling, and reading skills. *Teachers Investigating Multimedia 2010*

AUGMENTED RETAIL: Since Generation Ds ‘essentially live through a screen’, AR will be the ultimate way to blend virtual and real worlds, and hence communicate with Generation Ds. *Richard Watson, Future Files: A Brief History of the Next 50 Years*

‘THOUGHT-PAD’ REVOLUTION: Touchpads are so last year. A new study suggests that ‘thought-pads’ could be in our future. This all might seem very sci-fi, but it’s a realm of science that has been brewing for years. Brain-computer interfaces, or BCIs, as they’re called, are becoming an increasingly common feature of the medical landscape, as neurological researchers seek to help paralytics escape the prison of their immobile bodies. We may not be in the realm of Avatar quite yet, but we’re getting there. *David Zax, Fast Company - November 2010*

TIME ZONES

ZONE 1: 2010-2015

ZONE 2: 2015-2020

ZONE 3: 2020-2025

ZONE 4: 2025-2035

ZONE 5: 2035-2050

Notes on time travel

This map is a broad representation of some of the trends and technologies currently visible. Improvement works are carried out at weekends and travellers should check to see whether lines are still operable before commencing any journey. Helpful suggestions concerning new routes and seasons are always welcome.

If you wish to travel outside of Zone 1 you are advised to bring sturdy shoes and a camera. Travelers are also advised to bring their own supplies of food and water although weapons are unnecessary if you keep to well-trodden paths. Also note that travel into Zone 6 is not available for people aged over 75 years of age.

A3 and A5 Prints of this map

Full colour prints of this map are available to anyone that asks nicely. A small charge is needed to cover print and postage costs only. Contact: info@nowandnext.com stating whether you'd like A3 or A5 size and saying which country the map is to be delivered to. Delivery is available to anywhere in the world. Alternatively, just print this out yourself (A3 inhouse recommended)

Sourced

Material for this map has been sourced from a number of publications including Future Files and What's Next



www.futuretrendsbook.com

What's Next
www.nowandnext.com

Acknowledgements

This map was conceived and created by Richard Watson at Nowandnext.com with some help from Benjamin Fraser at Soap. Also thanks to Oliver Freeman, Mike Jackson and Scott Martin.



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TRENDS & TECHNOLOGY TIMELINE 2010+

A roadmap for the exploration of current & future trends (+ some predictions to stir things up. More at nowandnext.com)



Global risks*

*Low probability/high impact events that could destabilise or slow down our position:

- ▲ Commodity price spikes
- ▲ Raw materials shortages
- ▲ Mass migration of population
- ▲ Nuclear terrorism
- ▲ Internet brownouts
- ▲ Electricity shortages
- ▲ Rapid increase in cyber crime
- ▲ Critical infrastructure attack
- ▲ Rogue stakeholder
- ▲ WMD Proliferation
- ▲ Green energy bubble
- ▲ Genetic terrorism
- ▲ Collapse of US debt
- ▲ Global supply chain
- ▲ Terrorist attack on



LEGEND

1. Society & Culture
2. Geopolitics
3. Energy & raw materials
4. Science & technology
5. Healthcare & Medicine
6. Retail & leisure
7. The Economy
8. Financial services
9. Environment & Climate
10. Food & drink
11. Transport
12. Travel & tourism
13. Home & family
14. IT & telecomms
15. News & Media
16. Work & Business

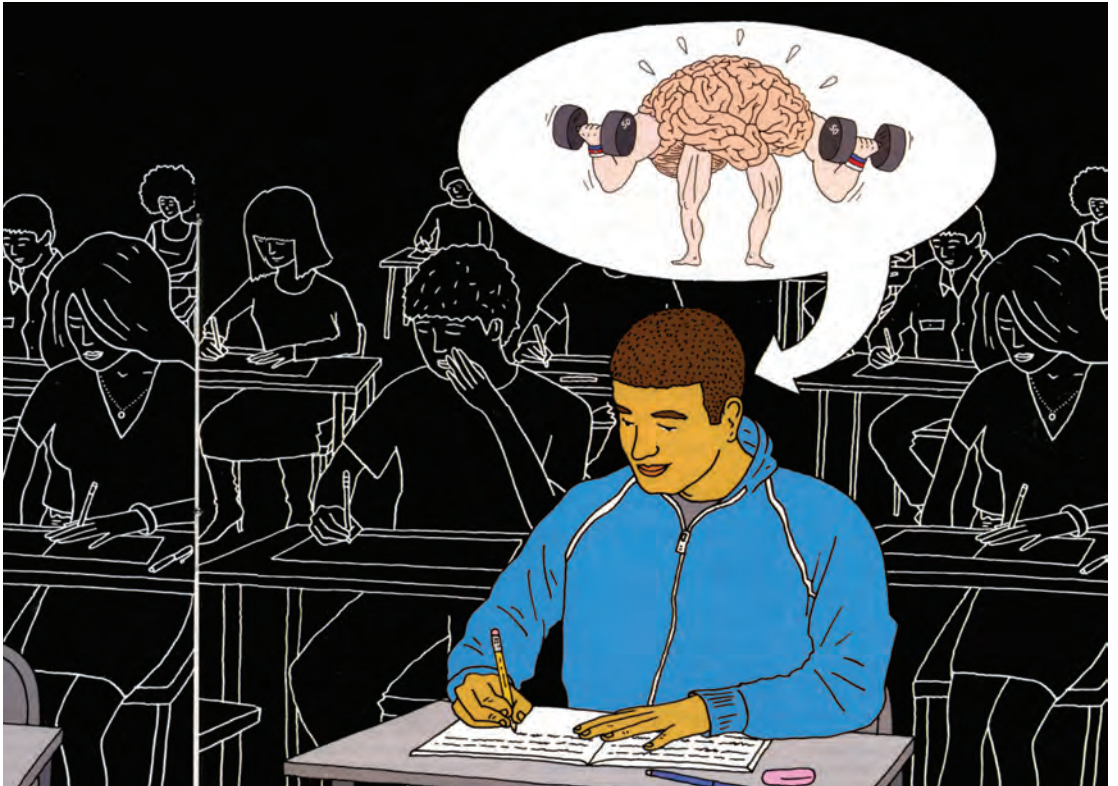
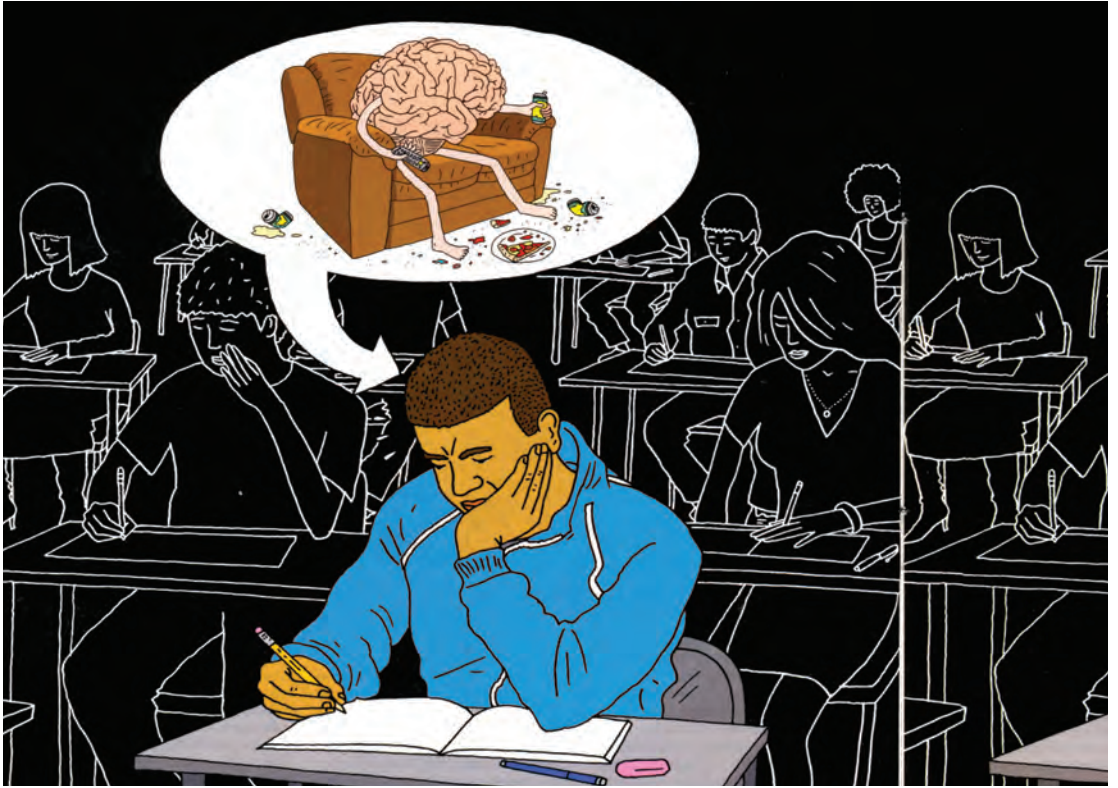
- Mega trend
- Trend
- Prediction
- ~~~~~ Dangerous currents
- 🔍 Poor visibility
- - - High-speed link
- 🚗💥 Partial ruin

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> ▲ US/China conflict ▲ Israel/Iran conflict ▲ Biophysical A link to cancer ▲ Geographical expansion of Russia ▲ Major earthquake in mega city | <ul style="list-style-type: none"> ▲ Global pandemic ▲ Conflict with North Korea ▲ Political disintegration of Saudi Arabia ▲ Systemic failure of financial system ▲ Fundamentalist takeover in Pakistan | <ul style="list-style-type: none"> ▲ Middle class revolution ▲ Collapse of China ▲ Mobile phone link to cancer ▲ Credit Default Swaps ▲ Rogue asteroid | <ul style="list-style-type: none"> ▲ Major nano-tech accident ▲ Space weather disruption to comms ▲ Aliens visit earth ▲ Return of the Messiah ▲ People taking trend maps too seriously |
|--|---|---|--|



FACTS & FIGURES

- Teens pack nearly 11 hours of entertainment media into 7.5 hours. *Kaiser Family Foundation 2010*
- Close to one in two (47%) of 8 to 15 year-olds could not imagine their world without computers and technology. *Future:Poll 2010*
- Almost a quarter (22%) of mobile users regularly use multiple screens, including mobiles, TVs and computers, to access different content at the same time. *Future:Poll 2010*
- 12 to 17-year olds in the EU spend 11.7 hours a week gaming, ahead of the 10.3 hours they spend watching TV and 9.1 hours surfing the Internet. Small wonder that worldwide spend on video games is expected to reach a value of \$49bn (£32bn) in 2011. *Forrester 2009*
- There are now 1.75bn Internet users, and they send 247bn emails each day. *Internet 2010 in Numbers - Pingdom 2010*
- By 2020, 450 billion Internet transactions will be generated every day. *IDC 2010*
- Mobile advertising rocketed by 32% year-on-year in 2009 to £37.6m, with entertainment, media and telecoms brands propelling growth. *Internet Advertising Bureau - April 2010*
- Online retail spend continues to grow, with 42.6% of UK consumers now buying online at least once a week, and an average online spend each of £71 per month. *Marketing with a Digital Heartbeat, Paul Kennedy 2010*
- Apps market set to be worth over £23 billion in 2015 according to Forrester Research. *TechRadar March 2011*
- Every day, 300,000 new users join Twitter. *TechRadar 2011*
- 50m tweets are sent each day. *Mashable February 2010*



SUB TREND: BRAIN BOOSTING

Self-taught experts are responding to the challenges of hyper-connectivity and the steady stream of new digital-era technologies by stretching themselves. Using online educational platforms and tapping into coaching from both specialists and from forum buddies, they devote themselves to mastering new skills and fine-tuning specialisms in order to achieve cognitive enhancement.

They see that this is nothing less than a revolution in the way we live and do business, and by increasing their mental capacity they can become experts to gain financial and personal rewards. They know too that they cannot afford to stand still in a creative society, and they constantly build their strengths because they expect multiple careers during their working life. But a love of this mind-expanding universe is what truly drives them. Indeed, when fully immersed in a task, playing to their strengths, using existing talents – or developing new ones – they experience real happiness.

For them, their job is both a reflection of who they really are and an extension of their personalities, a **Labour of Love**. Developing specialisms, then, becomes a means to achieve greater fulfilment. Their status is unchallenged because their work is so closely linked to their identity and authentic selves.

Brain Boosting reflects people's need for constant learning to achieve excellence, reach their full potential and make a contribution to the future shape of society.

“They devote themselves to mastering new skills and fine-tuning specialisms in order to achieve cognitive enhancement.”



INSIGHTS

MEMORY: London's cabdrivers who memorise that city's insanely confusing streets (25,000 of them) have a larger posterior hippocampus, the region that files spatial memories, than the average Londoner...if we offload our navigational ability onto GPS, we'll lose it. *Newsweek - January 2011*

MY BEAUTIFUL GENOME: Lone Frank, the science journalist, wrote a personal, bittersweet and extremely informative book about her voyage through the genetic tests of this world. She has a PhD in neurobiology and is an advocate of making genetic information available to everyone. And she is not always "nice". On the other hand, she is honest. Blisteringly honest. *My Beautiful Genome by Lone Frank - September 2010*

MINDFULNESS-BASED MIND-FITNESS TRAINING: Meditation is great for mental training and has shown success in enhancing mental agility and attention by changing brain structure and function so that brain processes are more efficient, the quality associated with higher intelligence. *Amishi Jha of University of Miami - 2011*

DAY-DREAMING MAKES YOU SMARTER: An active idle state of mind activates long-range neural connections in the brain that are linked with high performance in IQ tests and better thought processes and intelligence. Teaching yourself how to daydream effectively, might encourage the sort of connections in the brain that make us smart. *Susan Whitfield-Gabrieli and John Gabrieli of MIT*

FACTS & FIGURES

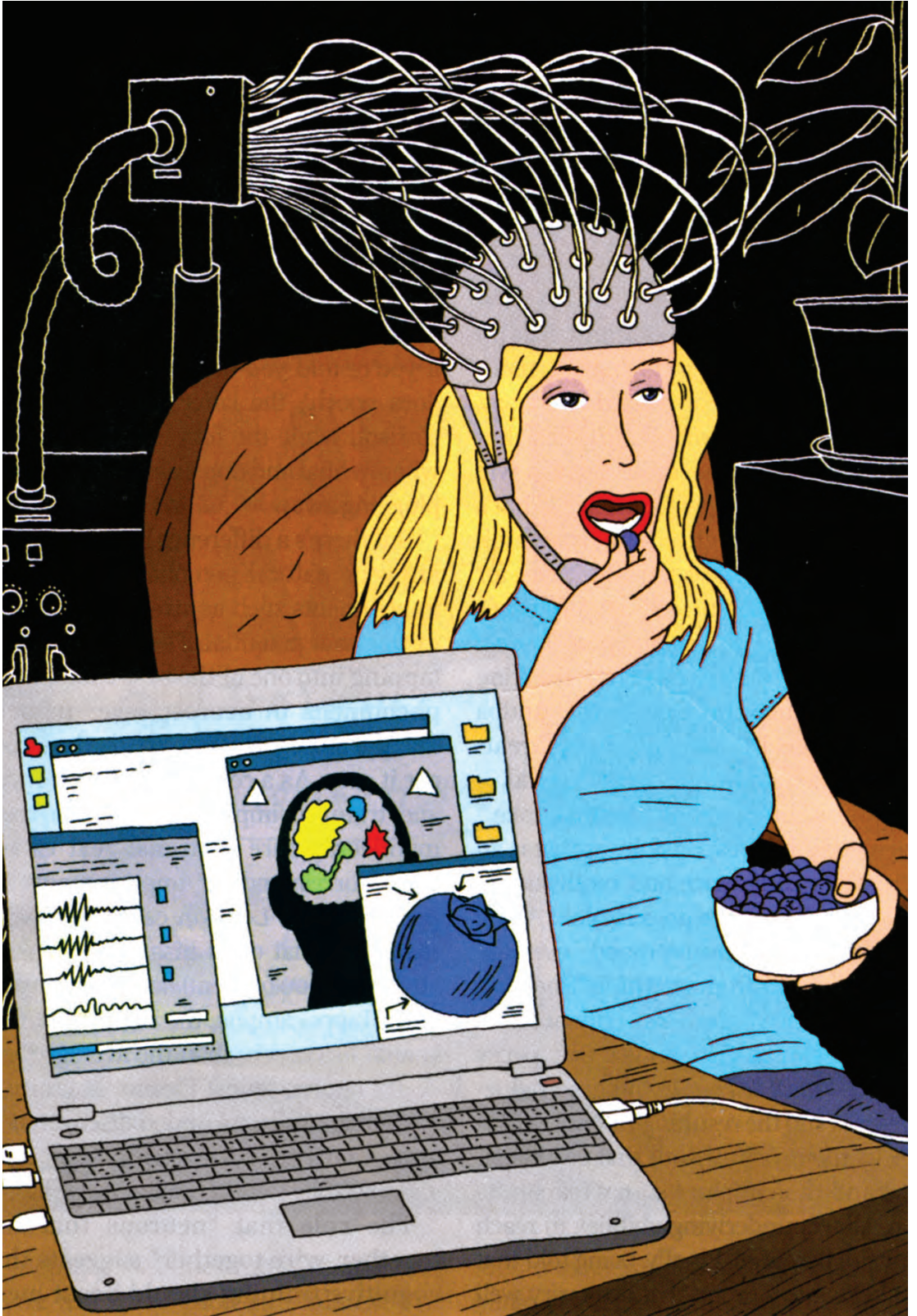
- Educational textbooks are worth around \$8bn (£5bn) a year in the US alone. *'Online education disrupting traditional academic models' Kabir Chibber BBC - November 2010*
- A year of exercise can give a 70-year-old brain the connectivity of a 30-year-old, improving memory, planning, dealing with ambiguity and multi-tasking. *Newsweek - January 2011*
- Olympiad in informatics is a 5-hour competition in programming for young people up to age 18. Inventing and coding their own ad hoc algorithms on the spot. In 2010, of the 315 competitors, 269 received a perfect score. *Monocle 2011*
- More than 13,000 people have completed the highly successful Mindfulness-Based Stress Reduction Program, founded by Dr. Jon Kabat-Zinn, at the University of Massachusetts Medical School. The program was featured on the documentary, Healing and the Mind, with Bill Moyers, and on NBC Dateline. *mindbodystressreduction.com*

1

Artbooks - Photo: Kjaer Global 2010

2

Memory Gaming at Apple - Photo: Kjaer Global 2010



SUB-TREND: TECHNO-ENHANCEMENT

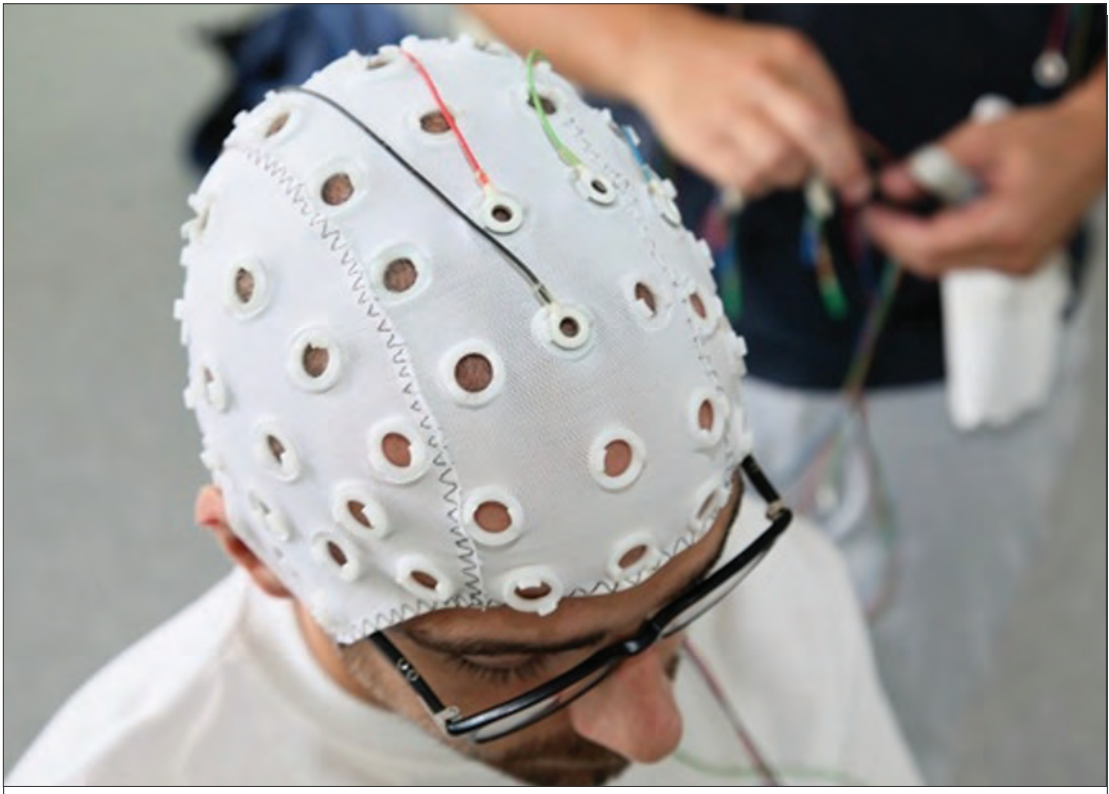
Technology is the backbone of modern life. In order to cope with the increased demands for **human improvement** and better health, we see a movement towards self-enhancement, using **technology to boost capabilities** and directing individuals towards what is important or enriching to them.

Already we see recognition engines suggesting content based on past behaviour or geo-tagging service recommendations based on location. The idea of **tech-enabled self-enhancement**, self-diagnostic and self-treatment becomes intriguing when we think about the future potential of technology for intuitive 'user behaviour' identification and analytics.

There is a call for technology to become more reactive: adapting to people's emotional state and needs. **Techno-Enhancement** products understand and identify moods in order to improve life, performance or state of mind. Technology that learns from the owner or user's behaviour will enable people to reach new goals, achieve more and have increased pleasure in what they are doing.

Within the context of **Techno-Enhancement**, accurately analysing individuals' data will be key. This means tech platforms must adopt a transparent, secure and honest approach to data management in order for people to entrust them with personal data.

“The idea of tech-enabled self-enhancement... becomes intriguing when we think about the future potential of technology for intuitive ‘user behaviour’ identification and analytics”



INSIGHTS

DATA IS AN ECONOMIC INPUT: Data is now seen as an economic input alongside capital and labour. *The Economist - February 2010*

BIO-SOCIAL NETWORKING: This technology is developed to replicate human senses. The intention is to offer physical contact in order to engender better trust online. As we lead more mobile, digital lives, we form networks unbound by location or face-to-face contacts. Bio-Social networking might just bring back the trust that would have developed through a physical meeting in the past. *Scientist Tracy Hammond, Sketch Recognition Lab, Texas A&M University*

THE THINKING PHONE: Nokia has introduced a cellphone app that could usher in a new wave of “thinking” phones: Nokia Situations essentially transforms a phone depending on the situation or location of its user. It aims to “define how you want your phone to behave in different situations.” *Nokia Beta Labs: “Nokia Situations – tell your device how you want it to behave”*

PSYCHOACTIVE MUSIC: Ever had goosebumps or felt euphoric chills when listening to a piece of music? If so, your brain is reacting in the same way as it would to some delicious food or a psychoactive drug according to scientists. *The Guardian - January 2011*

MENTAL AGILITY GAMES: Some videogames might improve general mental agility... the strategy-heavy videogame Rise of Nations improves executive-control functions such as task switching, working memory, visual short-term memory, and reasoning in older adults. *Newsweek - January 2011*

FACTS & FIGURES

- AR technology will be worth \$714m by 2014. *Juniper Research*
- The amount of ‘data in the digital universe’ in 2010 is 1.2 zettabytes and 70% of this will be generated by users. *The Guardian - June 2010*
- An estimated 500 million people worldwide are expected to be using mobile healthcare applications by 2015. *Research2Guidance - November 2010*
- More than 200 million mHealth (mobile Healthcare) applications are in use today, and that number is expected to increase threefold by 2012. About 70% of people worldwide are interested in having access to at least one mHealth application, and they’re willing to pay for it. *Report: 600 M MHealth Apps By 2012 - mobilehealthcareday.com - January 2011*

1

“Thought-Pad” Revolution, Fast Company November 2010 - Photo: Moran Cerf and Itzhak Fried

2

Another angle on the Swiss wheelchair experiment, Fast Company November 2010 - Photo: EPFL



CASE STUDY: OLYMPIAD IN INFORMATICS

Teen athletes do battle at Algorithm Olympics. Competitors at the 2010 international Olympiad in Informatics held in August at the University of Waterloo in Ontario, Canada tackled 8 programming problems in two days of competition.

A 5-hour competition in programming for young people up to age 18. Inventing and coding their own ad hoc algorithms on the spot. In 2010, of the 315 competitors, 269 received a perfect score. wired.com/magazine/2010/11/mf_algorithmolympics/all/1?pid=3895&viewall=true

“Five hour competition in programming for teenagers... inventing and coding their own ad hoc algorithms on the spot.”



Contestant - Photo: Michael Schmelling

Contestant Rafael Schimassek, Portugal - Photo: Michael Schmelling



Olympiad in Informatics Ontario, Canada 2010 - Photo: Michael Schmelling



CASE STUDY: KINEO-ANDROID TABLET FOR SCHOOL

How do you make a tablet safe for school? You take out all the fun stuff. The Kineo, by Brainchild, is the first Android tablet e-reader designed specifically with students in mind. It is stripped of texting capabilities, has no built-in camera and can only access websites approved by the teacher.

The idea behind Kineo is that it tries to capture a student's attention in the way a computer would. The tablets will connect to Brainchild's Achiever!, a web-based assessment and standards-based instruction program. Achiever! evaluates performance and then delivers tutorials and retests students to determine progress on state standards in mathematics, language, arts and science. brainchild.com/Kineo.html

“...evaluates performance and then delivers tutorials and retests students to determine progress on state standards in mathematics, language arts and science.”

1

Designed for the classroom and secure for students - Photo: brainchild.com/Kineo.html

2

The Kineo – Android tablet for students by Brainchild - Photo: blazomania.com

Quest to Learn

- ▶ About Q2L
- ▶ Our Learning Model
- ▶ Learning in Action
- ▶ Join Us
- ▶ Tune In
- Downloads
- Contact Us

PARENT KIT

MEDIA KIT

CURRICULUM

GALLERY



WHAT'S GOING ON?

Quest to Learn is a school for digital kids. It is a community where students learn to see the world as composed of many different kinds of systems. It is a place to play, invent, grow, and explore.

For weekly updates, check out the [Q2L Relay!](#)



CASE STUDY: QUEST TO LEARN

Quest to Learn is a school for digital kids. We believe that kids learn best when curricular content is presented in an inquiry-based format... We do this by creating immersive game-like learning environments. Students learn standards-based content within classes called domains, with disciplinary knowledge organised around big ideas that require expertise in two or more traditional subjects. Quest aims to educate children for 21st Century success – preparing them for a world that is in increasingly networked, collaborative, global and systems oriented. q2l.org

“Quest to Learn aims to educate children... for a world that is increasingly networked, collaborative, global and systems oriented.”



CASE STUDY: MULTISENSORY 4D PHONES

The physicality of telecommunications will be very important in the future. This “four-dimensional” Intimate Phone experience will allow people to send a kiss over their mobiles instead of a text message. Imagine that, making out with a piece of machinery instead of a real person. dvice.com - December 2010

At TED X in Berlin, design researcher, Fabian Hemmert showed off 3 cellphone prototypes that would put the “touch” back in “keeping in touch.” Your iPhone might have a lot of apps, but there aren’t any apps for these features. [Video: fabianhemmert.de/video/intimate_mobiles.mp4](http://fabianhemmert.de/video/intimate_mobiles.mp4)

“This ‘four-dimensional’ experience will allow people to send a kiss over their mobiles instead of a text message.”

1

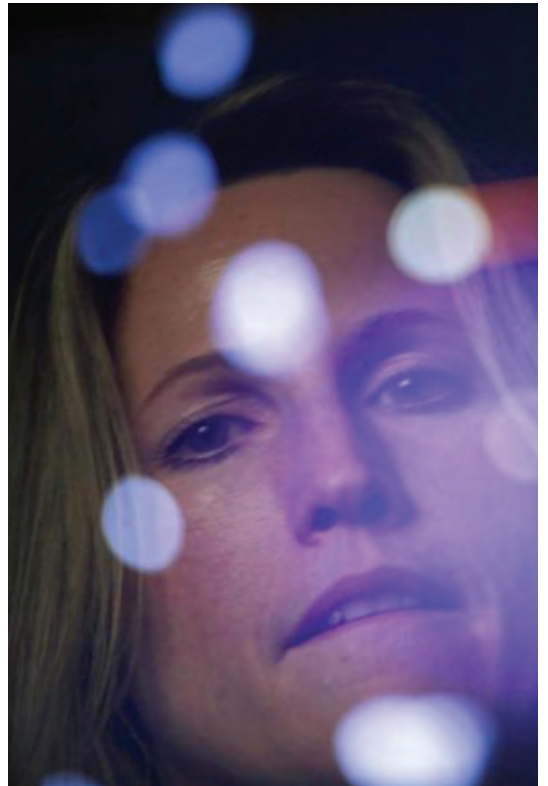
Tightness: The ‘grasping mobile’ - Photo: fabianhemmert.com

2

Moisture: The ‘crying’ or kissing phone - Photo: fabianhemmert.com

3

Airflow: The ‘whispering phone’ - Photo: fabianhemmert.com



CASE STUDY: EYE TRACKING MOVES THE MOUSE

Ever wish your eyes were lasers? A laptop prototype brings that wish closer to reality, if a new eye tracking technology from Tobii works as advertised. They have developed a laptop with eye tracking tech that turns your eyeballs into the mouse. The current laptop is a prototype platform to demonstrate the technology, and commercial versions of the system should arrive in about 2 years. [boston.com - March 2011](#)

“This laptop with eye tracking tech turns your eyeballs into the mouse.”

1

Tobii Technology prototype laptop - February 2011 - Photo: Seth Wenig

2 3

Barbara Barclay of Tobii Technology, Inc. demonstrates a prototype laptop that tracks and can be controlled by the eye movements of the user - February 2011 - Photo: Seth Wenig



Google Translate

English ↔ Spanish

hello

hola

Dictionary

hello

interjection:

- ¡hola
- ¡caramba
- ¡aló
- ¡diga
- ¡oiga

Enter Conversation Mode Alpha

Google Translate ?

hola

hola como estas

hello how are you

Speak more English

I am fine thank you

Estoy bien gracias

Responder en español

CASE STUDY: GOOGLE CONVERSATION MODE

Allows you to speak in one language into your phone and the app will read it aloud translated into the language of the person you're speaking to. Your conversation partner can then respond in their language, and you'll hear the translation spoken back to you.

The new option is experimental and it only works for English and Spanish, so it's more like an early preview. Conversation mode is a fancy name for making it easy to have a conversation in two different languages. googlesystem.blogspot.com - January 2011

“...speak in one language into your phone and the app will read it aloud translated into the language of the person you're speaking to”

1

Photos: googlesystem.blogspot.com

2



INSPIRATIONAL SOURCES

GHOSTLY DISCOVERY: Free to download app. You choose the colour of your mood and the app selects the appropriate artist/music. ghostly.com

ROBOT CAR THAT ENHANCES DRIVING: Affective Intelligent Driving Agent (AIDA). sensible.mit.edu/aida

URBAN CODEMAKERS: Virtual-physical game world. Rezoning a city through play. IDEOTAGs as a platform for urban proposals. <http://urbancodemakers.net/blog/>

INTEL ROCKSTAR: Campaign featuring passionate engineers subverting their sterile, life-squelching IT environment. *Video:* www.youtube.com/watch?v=qjQHr2n3j3k

HUMAN ENHANCEMENT: Nick Bostrom & Julian Savulescu (Ed.) nickbostrom.com

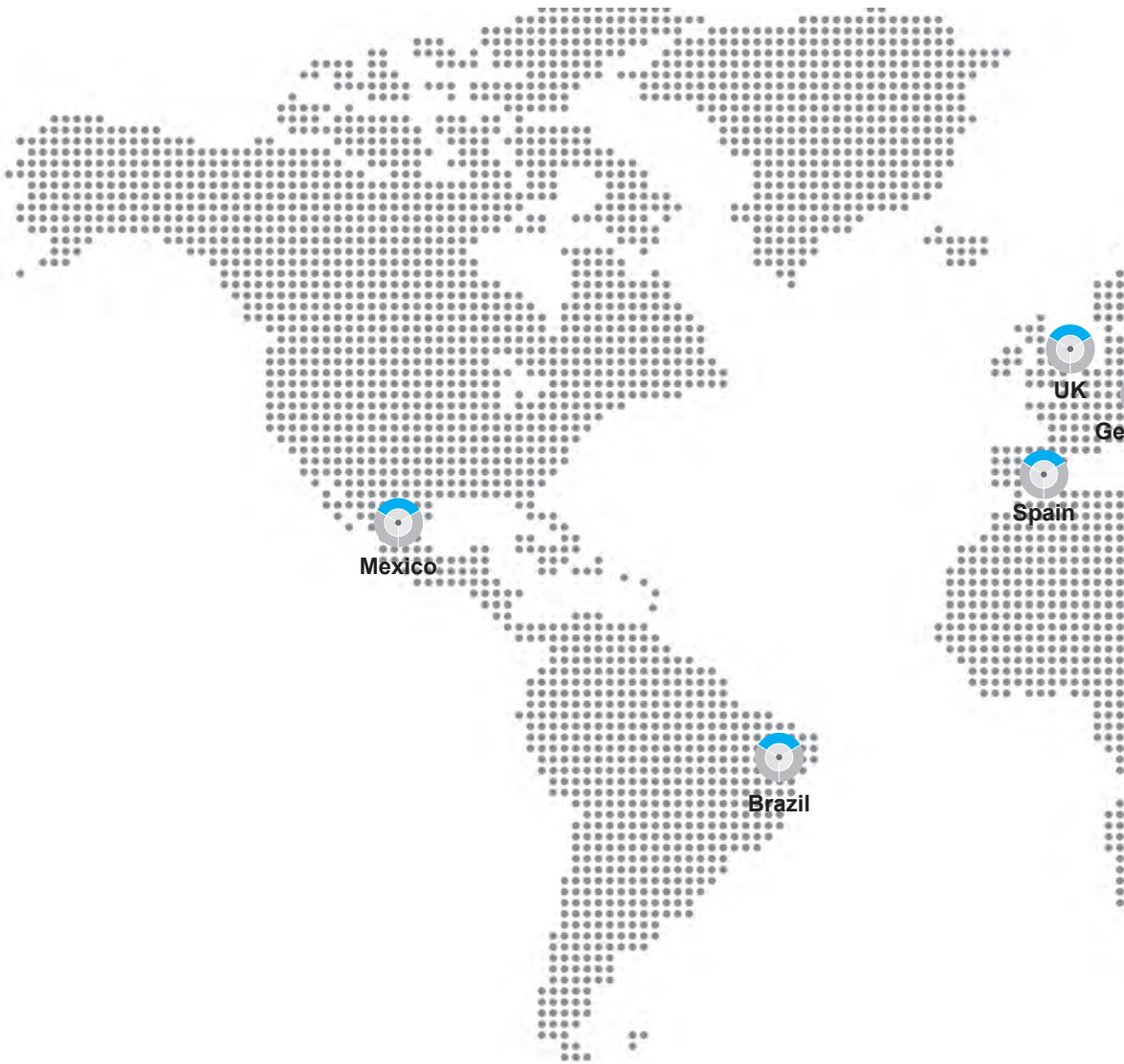
TURNING INTO GODS: This is a time of Communication, Connection and Creative Collaboration. The new feature length documentary exploring mankind's journey to 'play jazz with the universe'... is a story of our ultimate potential, the reach of our intelligence, the scope of our scientific and engineering abilities and the transcendent quality of our heroic and noble calling. *Video:* <http://vimeo.com/10939144>

1

Eye tracking technology - Photo: Tobii Technology

2

Turning Into Gods - Photo: from a film by Jason Silva



LATAM: (Brazil and Mexico)

SUPERHUMAN: KEY MARKETS



EUROPE: (UK, Spain and Germany)



IMPLICATIONS

“Be not afraid of greatness: some are born great, some achieve greatness, and some have greatness thrust upon them.” William Shakespeare

To survive and succeed in a globally connected society, people need to show their greatness and become **Superhuman**. They seek to constantly improve their skillset and knowledge in order to achieve self-reliance.

Governments and institutions are spending less on funding public services such as education, and are instead putting investment behind technology initiatives such as **Connected Britain** and **Avanza Infrastructures** in Spain and the **South West Broadband Programme** in Ireland. We are seeing a democratisation of knowledge, culture and creativity, making people more self-reliant as they can access the right information by themselves. Technology is becoming a key enabler for people to acquire new skills, regardless of their social status. Developing niche competences in a macro system reinforces this independence.

“Computers are here to make us happier,” said Eric Schmidt, the founder of Google. He might have added that they are also here to meet our desire to be smarter, because the need for people to achieve self-reliance through lifelong learning, is dramatically increasing demands on technology. Although the pace of change is growing, established institutions and systems are not moving fast enough to answer the evolving needs of people to update their skills. Trust in experts has, according to the Edelman Barometer, increased to a staggering 70% (Edelman Barometer, 2011). This is at an all time high and it signals a desire for authority and accountability in the current climate of economic and political uncertainty.

This represents a sizeable opportunity for an organisation like ours, as it enables us to provide the products and services required to become **Superhuman**, establishing ourselves as a trusted and expert guide and enabling people to constantly improve their ability to thrive in a globally connected - and ultimately more democratic and open - society.

Intuitive technology that learns from user-behaviour can enhance people’s mental, professional, personal and physical performance. We can help people get through their day in a more efficient manner. We also have the opportunity to deliver learning tools to people in a convenient and portable manner, tailoring our products to suit their needs and the changing demands of the economic and technology landscape.

Developing tools for self-improvement and on-the-move learning is a way to create value and meaning for customers, enable them to excel in their chosen areas of expertise and ultimately help them achieve the self-reliance they crave.



SUPERHUMAN: UK

The UK government is cutting funding for public education and job opportunities are becoming scarcer every day. The government's spending cuts and the rise in VAT to 20% in January will result in more than 1.6 million job losses across the public and private sectors by 2016, research by the CIPD (2010) suggests. England's universities will have their budgets slashed by nearly £1bn over the next academic year (Hefce, 2011).

This increases pressure on families to ensure their children have access to a good level of education, and on individuals who need to acquire new skills to keep up with changes in the employment market. With the UK government objective to connect everyone to broadband by 2012, technology is helping make knowledge, learning and creativity accessible to everyone regardless of their social status.

O2 Learn is Telefónica O2 UK's first attempt to democratise education by providing a platform from which everybody can freely learn. Teachers from a wide range of schools, including the prestigious Eton, have 'donated' virtual classes to enable students to revisit subjects they did not understand at school or subjects that were not taught in their school. This platform could be developed to include mobile and location-based services such as locating a library or an interesting talk/conference. This would ensure O2 Learn becomes a dynamic learning platform.

In addition, O2 Learn could offer classes in areas that are particularly badly affected by the current round of spending cuts. Universities Minister David Willetts told the House of Commons Business Committee in October 2010 that the teaching grant for subjects in bands C and D (arts, humanities and social sciences) will lose 100 per cent of their funding at university level. In addition, the cut to Art Council England's budget is 30% (Charlotte Higgins, the Guardian). By offering classes in areas such as art and music, O2 Learn could also leverage existing relationships with the entertainment industry.

From a business perspective, O2 UK has already launched a series of breakfast meetings for SMEs to learn and network. This well-received initiative could be taken online and on mobile to create a community of constant learning and sharing between SMEs. Additionally, we could leverage our internal know-how and engage employees to share their knowledge with our SME customers.

The other aspect of the **Superhuman** trend that O2 UK could capitalise on is **Techno-Enhancement**. We have the most sophisticated CRM capability in Europe and we should ensure that all the data we capture about our customers is used to enhance their abilities. This is crucial to ensure we become a true aggregator of experiences and deliver value to consumers during challenging economic times.



SUPERHUMAN: SPAIN

Spain was hit very hard by the recession and has a clear need for increased self-reliance. With the highest unemployment rates, 20.4% compared to 9.9% in the rest of Europe, a record 4.6m Spanish workers (or 1 in 5) are now out of work. (Eurasia, 2011). Even though the international situation is looking brighter and industry employment should benefit from export orders, a weak outlook for domestic demand points to sluggish job creation in other sectors (European Commission, 2011).

Almost half (47%) of small businesses in Spain express fear that their domestic economy is declining significantly. However, there is some optimism among Spanish businesses when it comes to the global economy, with 40% feeling optimistic about a slight recovery in 2011 (Sage Business Index, 2011).

It is important that Telefónica continuously embraces Spain's desire for connectivity by helping small businesses tap in to global opportunities - especially since a recent survey reports that 60% of respondents wanted to increase the use of technology to help make their business more efficient (Sage Business Index, 2011). Telefónica has the opportunity to develop learning platforms for people to be able to tap into global opportunities. An innovative and opportunistic mindset will lead people out of the economic crisis, encouraging them to develop skills and products to be able to succeed outside their own country. Interestingly, Google Conversation Mode was first launched in Spanish, revealing the need for people to access tools that enable them to communicate with the world.

Despite its current economic troubles, Spain is emerging as a pre-eminent champion of product innovation, with 41% of small businesses looking to launch new products in 2011 (Sage Business Index, 2011). The country seems to understand that to succeed in a global economy, people need to become **Superhuman** and develop a core expertise. People need the ability to connect worldwide and will use this to become more **Autonomous**. Since its launch, the Spanish version of Twitter has grown 736% in Latin America and Spain (Twitter blog, November 2010). *"To take just one example, Spain invested over €300 million in future internet initiatives in the past year,"* says Professor Fionn Murtagh of Science Foundation Ireland. Spain ranks 16th within the EU-27 for innovation. This position is in part due to strong growth in private credit (12.7%), broadband access by firms (15.3%) and non-R&D innovation expenditures (13.4%).

Telefónica can become the partner of choice to enable people and businesses to succeed in the global economy by providing them with the tools to become **Superhuman** and compete in an international scale

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UNStudio's design for the Urban Library of the Future and Centre for New Media in Ghent



SUPERHUMAN: GERMANY

Germany's unemployment has dropped below the 3 million mark for the first time since 1992, and a new study claims that it needs to reduce skilled labour gaps by increasing immigration and hiring more women. The number of potential workers in Germany is predicted to fall by 6.5 million to 38 million, resulting in severe skills shortages and negative consequences for the economy.

Telefónica O2 Germany could provide the learning capabilities that are needed to increase skills within the country. Indeed, following the O2 Learn initiative in the UK, we could create open education platforms in Germany to enable people to learn new skills.. It seems likely that open-education platforms would appeal to this market because Germans are very active in social media, Germany ranks 7th worldwide for Facebook penetration (Socialbakers, 2011) and 4th when it comes to Twitter penetration (Website monitoring, 2010).

An interesting aside is that 75% of tweets in Germany come from 3rd party applications or mobiles (Website monitoring, 2010). This shows the importance of creating platforms that work across devices to enable people to learn the skills they need to become **Superhuman**. Everyone can learn, as long as the experience is accessible and convenient for them. The idea of the 10-minute class, pioneered in O2 Learn, could be replicated on the mobile, enabling consumers to get access to education on the go. Additionally, we could encourage people to participate and add their own classes, feedback or recommendations for learning.

The advantage of using mobile for learning and skills development is that we can track customers' behaviour, the frequency of the content they chose to view, how often, for how long and when. We can then use intuitive technology to tailor the learning programme to the user, depending on individual preferences and abilities. Germany is already seeing the emergence of responsive devices. Mobile phones that are 'emotionally aware' are now in the prototype stage. German designer Fabian Hammart has created a device called the "intimate mobile" with three different emotional responses to match the user's mood. Even expressive robots that can read people's needs are in the prototype stage. This clearly shows that the market for emotional products is maturing and Germany might well take a lead.

We should capitalise on the potential within Germany, both for upskilling and for responsiveness to new ideas. Creating a platform for education 3.0 would offer mobile, dynamic, open and intuitive learning to enable our customers to become **Superhuman** and thrive in a globally connected society.



SUPERHUMAN: LATAM

Brazil and Mexico are benefiting from economic growth, and individuals in these markets are increasingly looking to develop new skills to enable them to get access to newly created executive roles.

However, education lacks sufficient public funding and Telco can fill this gap by providing easy and convenient access to learning platforms that people can use on their own terms. Only 39% of Brazilians aged 25-64 have successfully completed upper secondary education, (compared to 70% for the UK). According to UNDP (2010), education in Brazil remains under-funded, inefficiently run and disproportionately benefits the wealthy, with average illiteracy levels of 12%. Due to low educational standards and lack of investment in public schools, 14% of Brazilian children attend private schools.

The World Bank warned in 2008: ‘unfortunately, in an era of global competition, the current state of education in Brazil means it is likely to fall behind other developing economies in the search for new investment and economic growth opportunities’.

Telefónica could create an aggregated learning content platform, by leveraging existing relationships with prestigious universities (such as MIT) and by building new education relationships. We could also utilise internal know-how and expertise by encouraging employee involvement. This would be beneficial to our customers and would also encourage Telefónica employees to participate in knowledge exchange and in developing their own competencies.

Alongside higher education, we could create an educational platform that works across PC and mobile to teach younger children, making the learning experience engaging and fun. It is clear that Brazilians are responsive to online platforms. A new study published this month by comScore, a digital marketing firm, found that 23% of Internet users in Brazil — compared with 11.9% in the U.S. — visited Twitter this past August, the highest rate of participation by any country in the world. *“Brazilians have just been voracious,”* says Katie Stanton, Twitter’s vice president of international sales and marketing.

Facebook, too, is taking off in Brazil. In just one year, Facebook saw a growth of 479% in Brazilian membership, leaping from 1 million to 9.5 million. It’s a phenomenon that’s planting deep roots. *“My sister is 10 years old. My grandmother is 82,”* says Simas of MTV Brazil. *“And they both have Twitter.”* (Times, 2010).

Such online and mobile dynamic educational platforms could be linked to our bigger initiatives such as Proniño - providing the tools for children to learn, and in this way, improving their lives and future opportunities.

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BIG Architects unveil plans for a sustainable library in Kazakhstan

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OPPORTUNITIES: COACHING & TRAINING

As people realise they need to update their skills and competences in order to thrive in a globally connected society, we see an increase in coaching and training. The personal wellness industry is showing a 20% year on year growth, with 50,000+ searches monthly on Google in the UK alone from people looking for a life coach (Personal Alchemy 2010). *“The total number of new coaches graduating from Coaching Academies in the world is doubling every 2 to 3 years.”* (Rajiv Vij, life & executive coach, Personal Alchemy 2010).

This is partly due to people’s need to succeed in the workplace, and also to the fact that they are increasingly having multiple careers. But we are also experiencing a societal paradigm shift where it has become crucial to reconsider our priorities. Companies must engage with people to inspire and empower their lives and help them to become **Superhuman**. “Thinking from the outside in and feeling from the inside out” will be a key business mantra in the next decade. Coaches can influence this process and even change lives by helping to shape an emotionally sustainable future for both corporations and individuals.

Happy people are 12% more productive - positive emotions appear to invigorate them, while negative emotions have the opposite effect. Economists have long debated how productivity can be raised through improved skills and the education of workers, or the introduction of new technology. This research has opened up a new line of inquiry: an important but often overlooked ingredient – that of human emotion (Warwick University 2010).

Assisting in the coaching process – and enabling people to develop both their skills and their sense of fulfilment – is something particularly important for O2 to embrace internally as a global brand. We need to ensure that our people develop the right skills to grow as individuals and employees. In his book ‘Bringing the Global Mindset to Leadership’, Mansour Javidan states: *“Global Mindset Leaders are more likely to succeed in working with people from other cultures. They build trusting relationships. A Global Mindset requires: Intellectual, Social, Emotional and Spiritual Capital.”*

We should also explore opportunities to include coaching through our education platform - offering online and mobile services. We could target this to specific customers such as SMEs, who often struggle to find the necessary funding – and time – to access training. This would be a competitive advantage, as well as promoting us as an organisation that helps people to embrace change and seize fresh opportunities.

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How the iPad 2 will revolutionise education, coaching and training - Photo:fastcompany.com



OPPORTUNITIES: BUILDING ON O2 LEARN

The key to becoming a major player in the educational field is to develop a long tail of subjects people are interested in learning about. Many companies are already championing educational projects – for instance Google’s sponsorship of YouTube professors.

The opportunity for us is to distribute educational content in a way that is convenient for people. For instance, in the UK, O2 Learn is an open-education platform that offers free online classes. Currently, the platform is web-based only, but it could include a mobile platform so that students can learn on the move. Additionally, we could encourage interactivity and community by including recommendations on other lessons and sources to check, plus user forums and support groups. Using intelligent technology, the platform could monitor how well a student has learnt a topic and then adapt the educational content accordingly. AR and location-based services could also be added to provide context-relevant educational content and support the idea of learning anytime and anywhere.

Such platforms could be developed on a global scale across all markets to encourage more cross sharing and learning between students and enable them not only to become **Superhuman** but also **Citizens of The World**.



OPPORTUNITIES: BUILDING ON GURUS

The success of the Guru initiative in the UK could be developed further. We could open up our Guru resources on mobile and online platforms, so that people who are interested in mobile technology could learn more about it, on their own terms.

Technology is all about helping people get through their day in a better way, becoming more efficient so that they have more time to spend on the things they like doing. The Gurus trained through our initiative could become a source of information for others, enabling people to find out about specific mobile related issues, apps and the latest technology (we could 'invite' guest speakers from TiD, MIT, etc to show what might happen in the future) – ensuring our customers get the most from their phones.

We could also create a Guru Academy and this initiative would promote our technology and innovation expertise, as well as helping to make technology cool.

Orange launched a 'Phone Trainer' service and 'academy' in 2003 under Orange 'learn'. They also have a 'personal trainer' service that comes with a small cost (£15 approx) and is only available to selected customers.

Another interesting initiative is from South African telecommunications service provider Nashua Mobile. It has launched the 'Get Smart Now' campaign with the goal of helping customers to understand the benefits that smartphones offer, also providing the information they need to choose the right devices for them.



OPPORTUNITIES: EMOTION & MOOD TRACKING INNOVATIONS

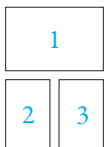
We already capture a lot of data about our users. The next step is to ensure this data is properly analysed so that we can create intuitive technology platforms that adapt to the user's needs. Nokia has already made a first step in this field, with the launch of Nokia Situations, which transforms the phone depending on the situation and location of the user.

For our efforts to succeed, it is crucial that we demonstrate to our customers the benefits of sharing their data with us. To win their trust, we must prove that we understand them on a personal level and are the best equipped to respond to their specific needs. According to the Edelman 8095 global liaison network: *"A good brand is one that reads my mind - one that talks to me personally, caters to my likes and dislikes. A bad brand is here today, gone tomorrow."*

CRM is key to ensure we create truly cognitive and intelligent technological platforms that learn from past user behaviours in order to recommend relevant content to our customers.

Trials in the LATAM markets have resulted in establishing convincing ways to identify people's specific mood and psychological profile based on their communication patterns and location. This enables us to push the right content to our customers at the right time and place to enhance their performance.

Becoming a trusted partner in delivering appropriate content, will enable us to assist our customers in their quest to be truly **Superhuman**. It will also cement our status as a must-have 'partner' in their day-to-day lives.



Elfoid, the Smartphone Pocket Robot - Concept/ Photo: Advanced Telecommunications

10%
Microsoft
Windows
Mobile

7% - HTC
2% - Samsung
1% - Motorola
1% - HP
1% - Other



5%
HP (Palm/
Web OS)

4% - HP
1% - HTC



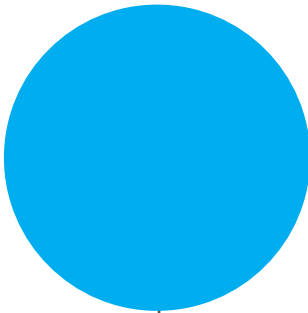
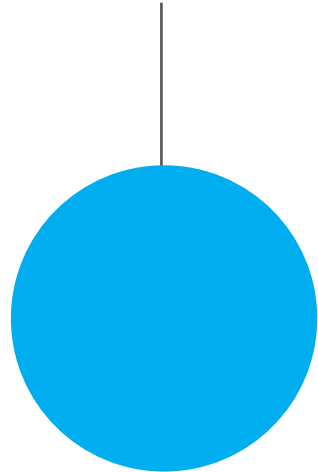
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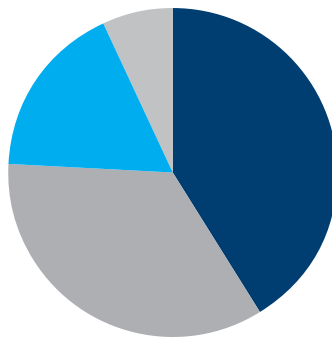
27%
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27% - RIM
BlackBerry



27%
Apple

27% - Apple
iPhone OS



29%
Android

12% - HTC
10% - Motorola
5% - Samsung
2% - Other

OPPORTUNITIES: MOBILE

The mobile is the device that aggregates all the content **Superhumans** need to be able to thrive in a globally connected society. It's personable and constantly updated to the needs of the individual through apps, videos, podcasts, etc.

The opportunity here for the O2 brand is to bring all this content together, in a way that is more personalised to the user. As technology becomes more intuitive and responsive to past behaviours, there is a need for companies to manage permission to develop integrated enhancing technology and manage people's need to switch on and off and move between networks and systems seamlessly.

We can learn from people's behaviour to understand what to prioritise and how to help people get access to the information that is relevant at a particular time (for instance, via systems such as Google's Priority Inbox).

We could also enable people to track and measure their mobile activity and suggest new ways for them to improve their performance. We already see this in the wellness/health industry with the rise of apps such as fitbit, Yoga Trainer Lite, RunKeeper, and Pzizz Relax. This is something that could be applied to all kinds of categories. We could use a similar method of recommendations as Amazon for, instance, whereby past behaviour is used to highlight future content, experiences, products or services that could be relevant and appealing to the user. This is something we talk about in **Smarter Together** (please see New Kinship implications).

Technology platforms will need to adopt a clear and transparent approach to data management so that people feel safe sharing their identity and behaviours in order to fully benefit from technology - especially for mood/psychological recognition.

As an organisation, if we can demonstrate to people the benefit of sharing their information with us, by enhancing their mobile experience and enabling them to improve their performance, we will build more trust and emotional engagement and deliver the **content that assists customers excel** at work and at play.



OPPORTUNITIES: HEALTH

Technological enhancement can help improve people's health – and their Superhuman potential – by monitoring their status/performance in real-time and offering answers to healthcare issues. As people become more proactive about their health, due to increased medical costs, the mobile becomes a key device for accessing information and advice.

Indeed, mobile technology is a catalyst for change as the mobile phone and connected tablet computer are facilitating distribution of a broad range of medical and support services (PSFK Health, 2010). Self-monitoring has boomed, and there is also increased access to and sharing of health information.

These networks are allowing professionals, health workers and individuals to connect and disseminate knowledge quickly (PSFK Health, 2010). There were already nearly 17,000 health apps available in major app stores in November 2010, with 57% being aimed at consumers rather than health care professionals (Research2Guidance, November 2010). It is interesting to note, that the heaviest use of apps doesn't necessarily come from senior users as young adults (18-29) account for 15% of the consumption of those apps. Google also recently reported that 3 to 4% of their user searches are health related. This indicates that the appetite for accurate health information in real-time and on the go is growing. It is already estimated that 500 million people worldwide will be using mobile healthcare by 2015 (Research2Guidance, November 2010).

We also see an increase in users connecting through 'self-help' platforms such as patientslikeme.com, where different patients share their experiences with each other. Founded in 2004 by three MIT engineers, PatientsLikeMe is a privately funded company dedicated to making a difference in the lives of patients diagnosed with life-changing diseases (Patients Like me, 2010).

Telefónica could become a global mobile health partner – helping consumers access health information on an everyday basis.

We could add a gaming component to our health platform to positively encourage people to live more healthily (apps such as You Booze You Looze are early examples of this fun approach to health awareness). We have the opportunity to harness the power of location-based technology to direct consumers to the most relevant information for them, partnering with health content providers, practitioners and authorities to ensure the information provided is accurate and reliable. This would enable us to create further engagement with consumers on a global scale.



OPPORTUNITIES: SENIORS

By 2030, there will be 3 million people over 85 in the UK and 15 million over 65. The baby-boomer generation is hitting 65 from this year onwards and a healthy life expectancy has never been a greater possibility (WRVS Report 2011). LATAM citizens born in the 1960s will begin to pass into their 60s by 2020. The number of Latin Americans age 65 or older is projected to more than double between 2000 and 2025 and to double again by 2050 (The Population Reference Bureau)

Looking globally, by 2050, the number of people ages 65+ will total just under 1.5 billion or 16 percent of the planet, as compared to 5 percent in 1950.

Research shows that most communications sent to 50+ about brands and services is either irrelevant or insulting to them (The Ageing Well Network). Add to this the fact that these generations are becoming ever more tech savvy - with a rise in interest-based forums for seniors, such as Eldergadget, grandparents.com and Saga Zone - and we can see very real opportunities to reach out in an **authoritative and appealing** way.

This sector generally has greater resources and spending power – and therefore a requirement for tools such as money/investment management – all of which can be facilitated through online and mobile platforms.

Lifelong learning is a key element to staying healthy, and with later retirement becoming common, our ageing population needs to **stay sharp and informed in order to be Superhuman**. Besides providing learning possibilities and areas such as brain training, we could design new platforms for entertainment to appeal specifically to older users. For instance, this sector already leads in ownership of electronic reading devices (PEW research). Amazon’s Kindle and the Sony reader 700 are especially popular with the oldest (80+) group (Silver poll March 2011).

Technology for this group is also strongly connected with safety and wellbeing. We see strong new offerings in freedom enabling devices, such as health monitoring and mobile personal response systems. There are no reasons why personal security functions shouldn’t be offered through the mobile phone (Lifecomm.com & Wellcore.com).

By adding trusted health information research tools (the third most popular online activity for the most senior age group in PEW Generations Online Study), we could create a comprehensive package and make a positive difference in our older customers’ lives, facilitating both **increased life expectancy and enhanced life quality**.

- 1 2 *Ingmari Lamy for Rodeo Magazine*
- 3 *Sean Connery for Louis Vuitton*

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SUPERHUMAN