Visit Arctic Europé – Stronger together, Rovaniemi 21-22/11 2017

The Future belongs to those who prepare for it today!
The Future starts now!

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Interreg Nord
European Regional Development Fund

EUROPEAN UNION

Northern Norway Tourist Board

Swedish Lapland Visitors Board
REGIONAL TOURISM ORGANISATION OF SWEDEN'S NORTHERNMOST DESTINATION

Lapland – The North of Finland

ANALYSIS OF DIGITAL TRENDS IN TOURISM AND CUSTOMER DIGITAL MOBILE BEHAVIOUR

ASSOCIATE PROFESSOR **HANS GELTER** LULEÅ UNIVERSITY OF TECHNOLOGY

"The best way to predict the future is to invent it"
(Alan Kay, Xerox PARC)

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AIM OF THIS STUDY

1. Analysis of digital trends in tourism
2. Analysis of trends in digital mobile behavior
3. To stimulating future digital development of tourism in Arctic Europe

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RESEARCH QUESTION

What do resent research papers and white papers predict about trends in digital tourism and mobile behavior?

THEORETICAL FOUNDATION

Science of Trend Analysis:

- **Quantitative forecasting** (traditional) –using indicators & statistics by predictions and prognosis
- **Qualitative forecasting** – for unpredictable events such as technological steps – based on expert panels, research and development results (white papers)
- **Scenario Planning & TAIDA – model** (Tracking, Analyzing, Imaging, Deciding and Acting)
- **Science Fiction** - speculations

This Report: Qualitative forecasting & TAI (in TAIDA)

METHODOLOGY

- Searched Google Scholar (search engine on scientific papers on the Internet)
- Search period 2013-
- Scanned 1160 scientific papers
- Analysed 215 relevant scientific paper
- Analysed 162 White papers (industry reports)
- Analysed 112 webpages on digital development

METHODOLOGY

Digital trends in tourism was sub-divided into four sub-themes of:

1. General trends in tourism and digital tourism
2. Digital trends in tourism business management
3. Digital trends in travel distribution
4. Digital trends in tourism marketing

Customer digital mobile behaviour was sub-divided according to customers experience-process of travelling into three themes:

1. Pre-consumption digital behaviour
2. During-consumption digital behaviour
3. Post-consumption digital behaviour

BACKGROUND

- **Information technology (IT)** has played a fundamental role in the development and growth of the tourism industry
- IT has become one of the most important communication tools for travellers as well as for tourism enterprises
- Every industry is currently undergoing a digital transformation
- We are entering industry revolution 3.0

RESULTS

DON´T BE:

- **Scared** by the technology (Science Fiction) – be curious!
- **Skeptical** – otherwise you will be overstepped by those adapting
- *Embrace the development and do your best of it!*
- Short summary of the report:

MAIN RESULTS

DISRUPTIVE MEGATRENDS

- Disruptive megatrends in society are changing way of living and doing business

- Paradigm shift towards digitalization, e-business, e-commerce, e-payment, e-tourism and e-traveller and the new digital generations = Digital transformation

- Megatrends in digital transformation will strongly influence tourist behaviors and the tourism industry

MAIN RESULTS

Disruptive hardware and software evolution such as:

- mixed reality (VR, AR)
- artificial intelligence (AI)
- robotization and automatization
- psychometrics micro-targeting
- Digital footprints and big data
- cloud computing
- blockchain technology
- Gamification
- holographic telepresence
- web 4.0
- Internet of Things (IoT)
- Quantum computers, and much more

together with the "experience turn" towards co-creation, customer-centered experience management and user-generated content,
challenges traditional business organizations and business value chains.

GENERAL TRENDS IN DIGITAL TOURISM

MEGATRENDS – IN SOCIETY

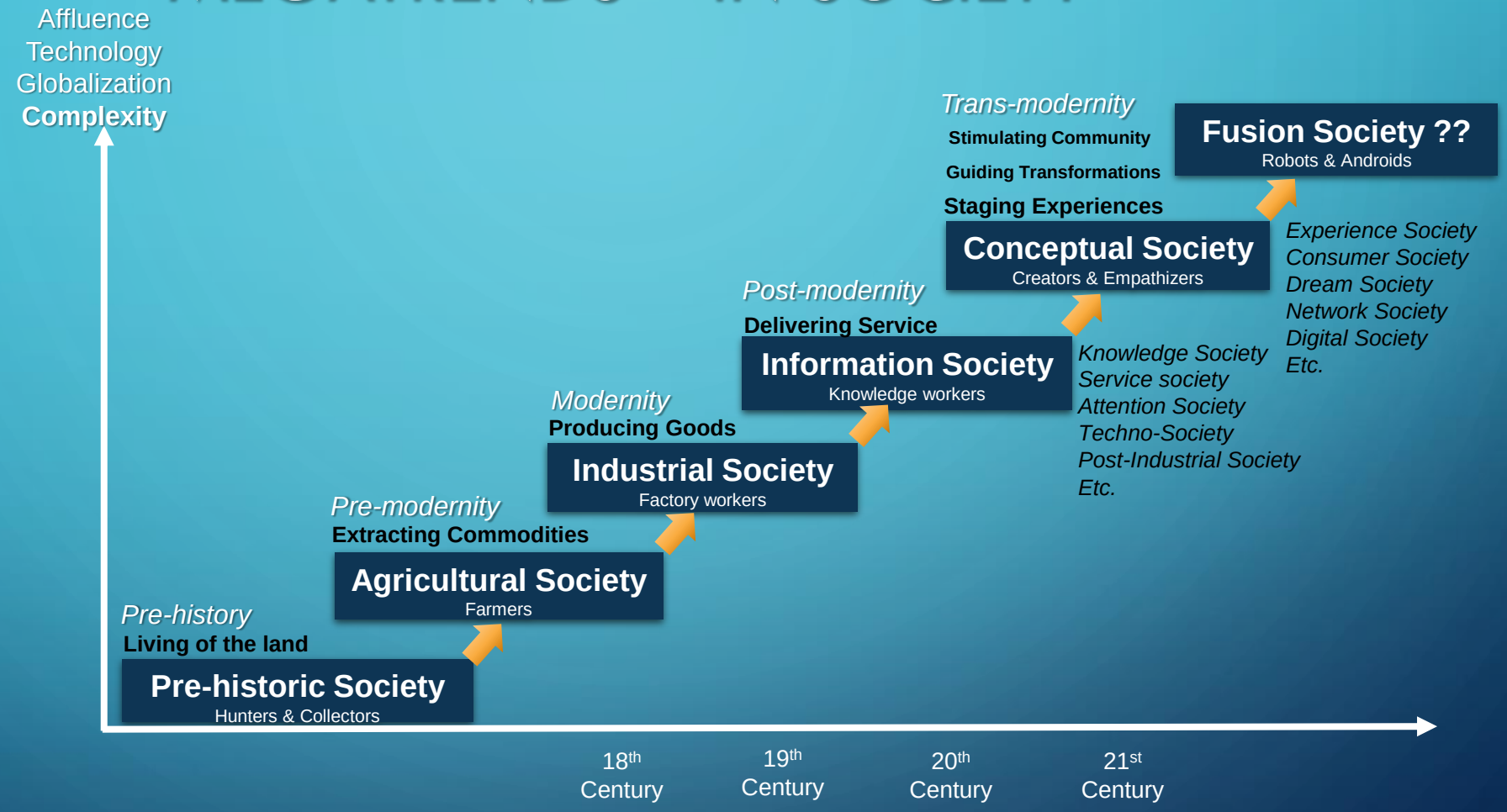

Figure 1. A simplified stage model of progression of society and economical offerings. (modified after Pine & Gilmore 1999, Florida 2002, Luyckx Ghisi, 2006, Pink 2007, and others.)

1 GENERAL TRENDS IN DIGITAL TOURISM MEGATRENDS – IN TOURISM BUSINESS

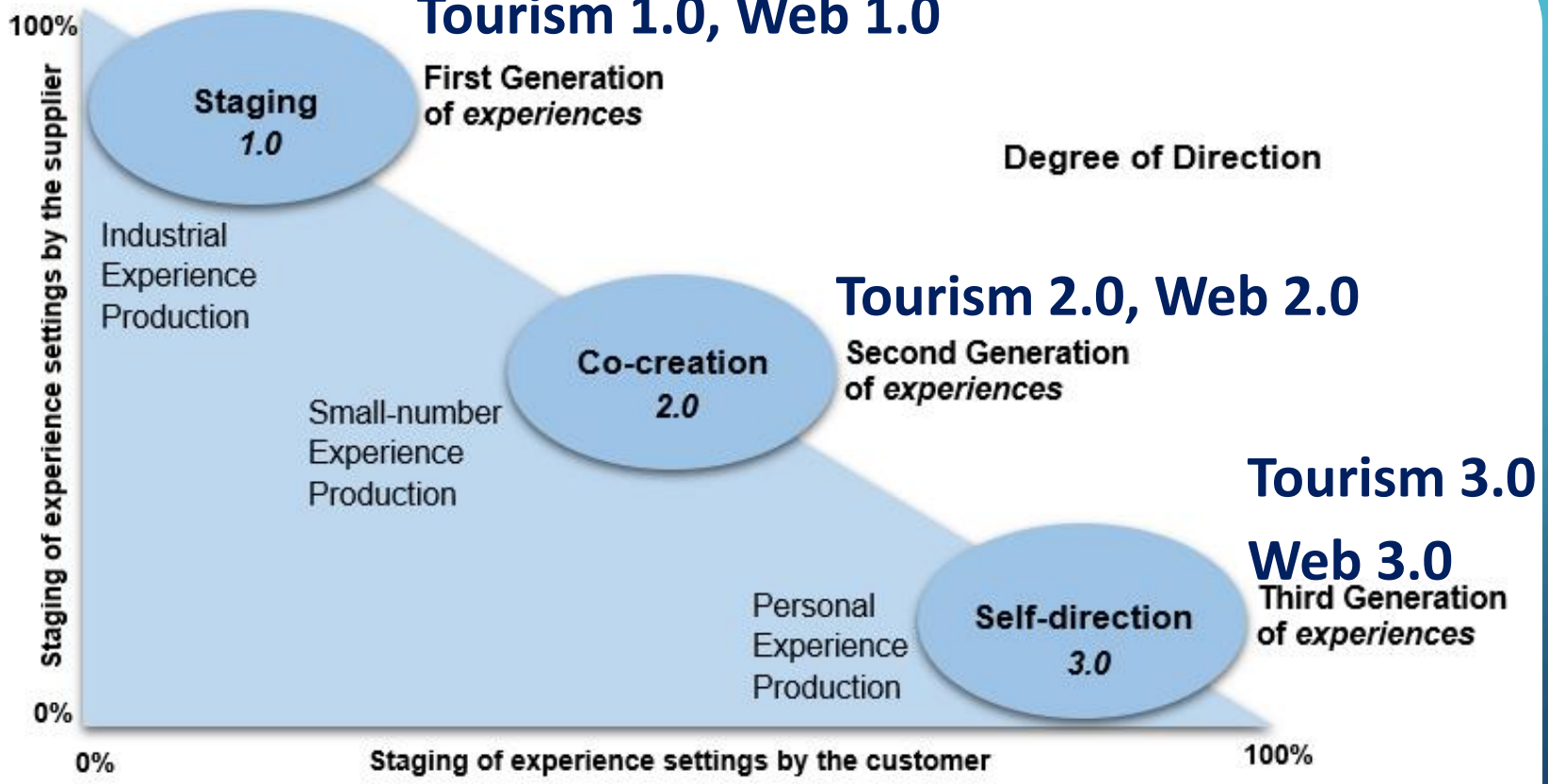

Figure 2. Different generations of experience production as actor-customer relationships in the creation of meaningful experiences. (modified after Boswijk et al 2012, p 11)

TOURISM:

Service industry →

Experience Industry

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GENERAL TRENDS IN DIGITAL TOURISM
MEGATRENDS – WEB EVOLUTION

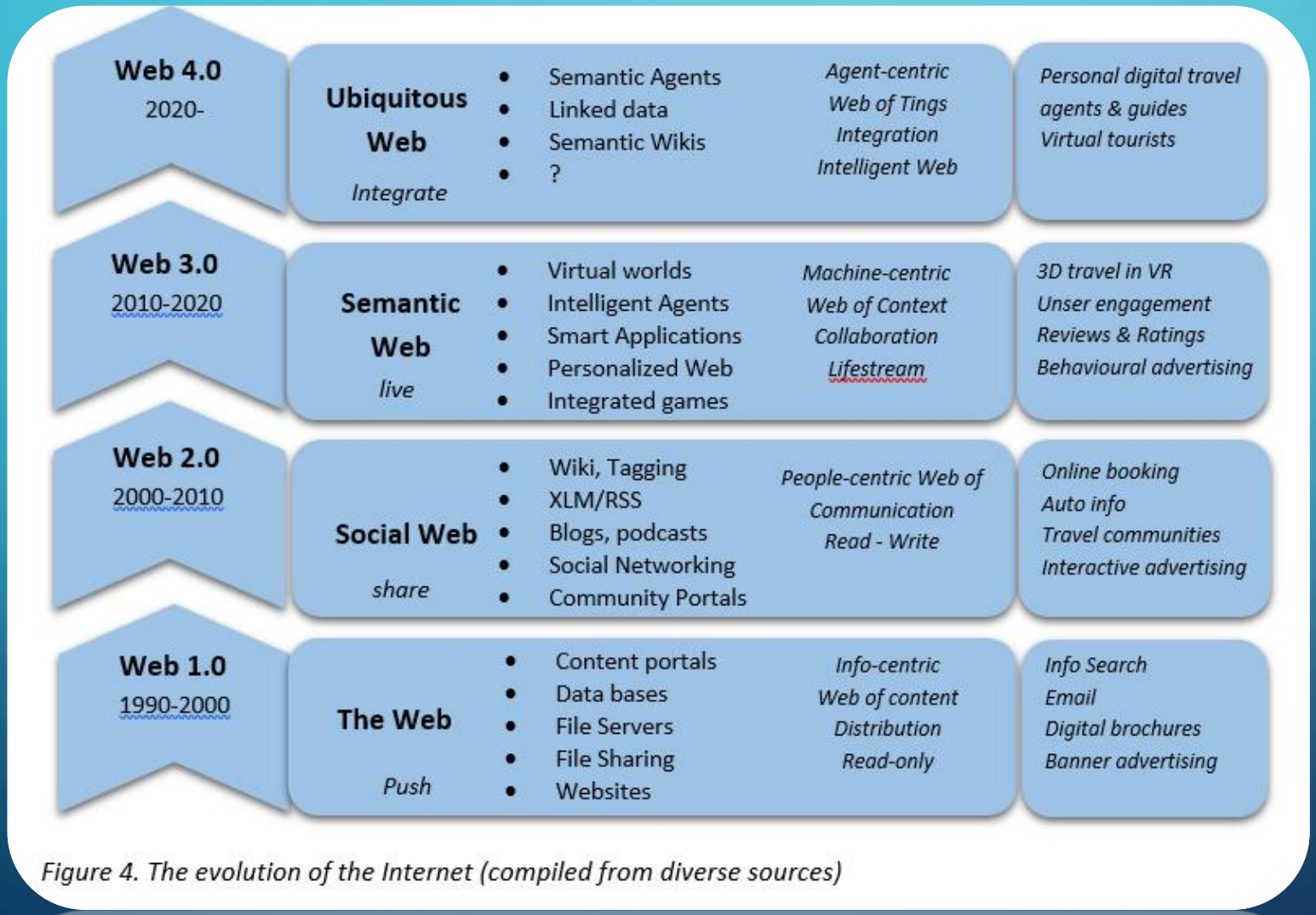

Figure 4. The evolution of the Internet (compiled from diverse sources)

TOURISM:

Posting information (web 1.0)

→ Self-creating experiences

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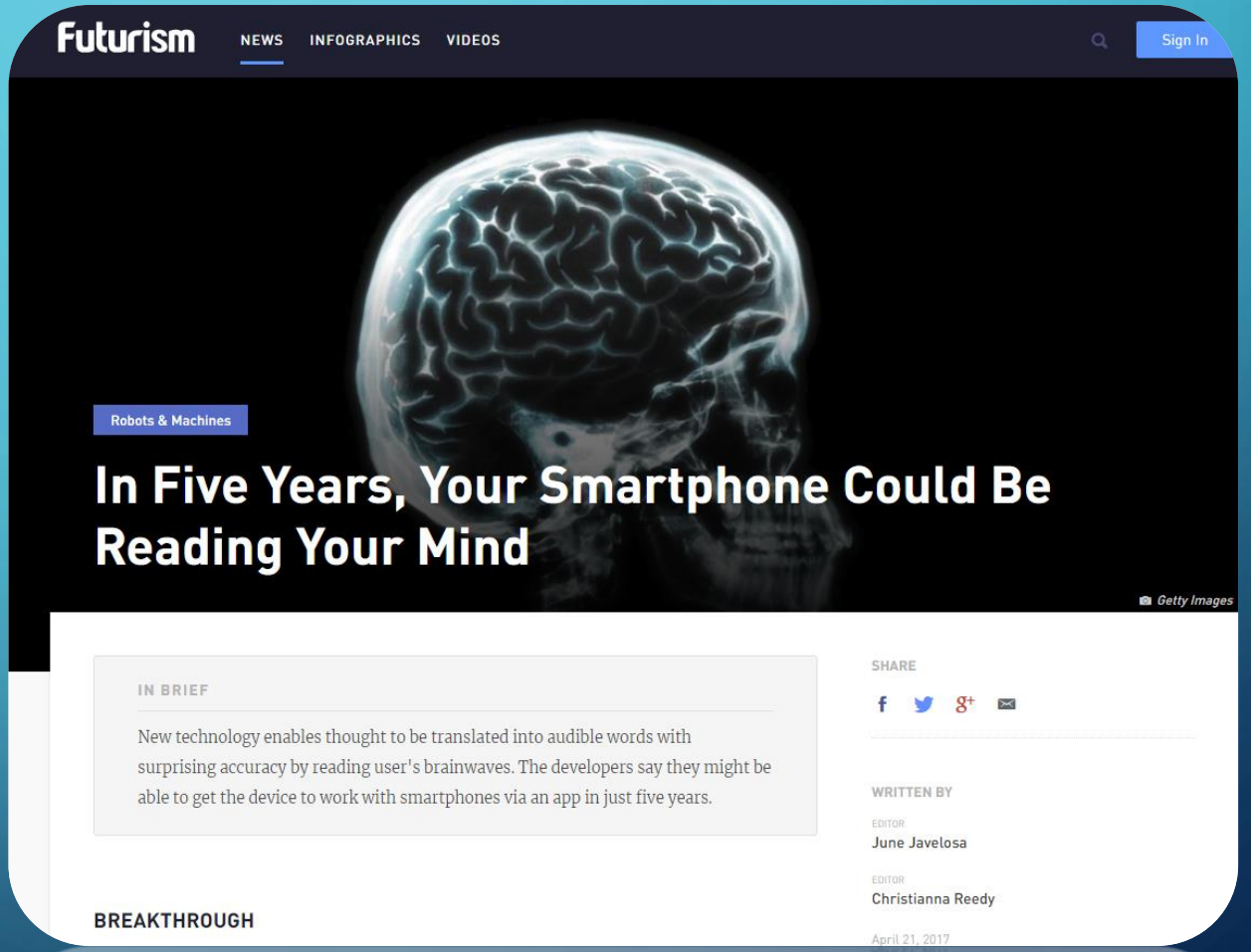
GENERAL TRENDS IN DIGITAL TOURISM
TECHNOLOGICAL MEGATREND – DEAD OF MOBILES

"Mobilen är redan död. Folk har bara inte insett det än" 2/2
Foto: Fotolia

Publicerad 29 sep 2017 17.30

Snart är mobilen borta – det här kommer i stället

I framtiden kan mobiltelefonen och bildskärmar vara ett minne blott. Det nya ska ersätta allt sådant och kräver inte ens någon uppkoppling. – Mobilen är redan död. Folk har bara inte insett det än, säger Alan Kipman.



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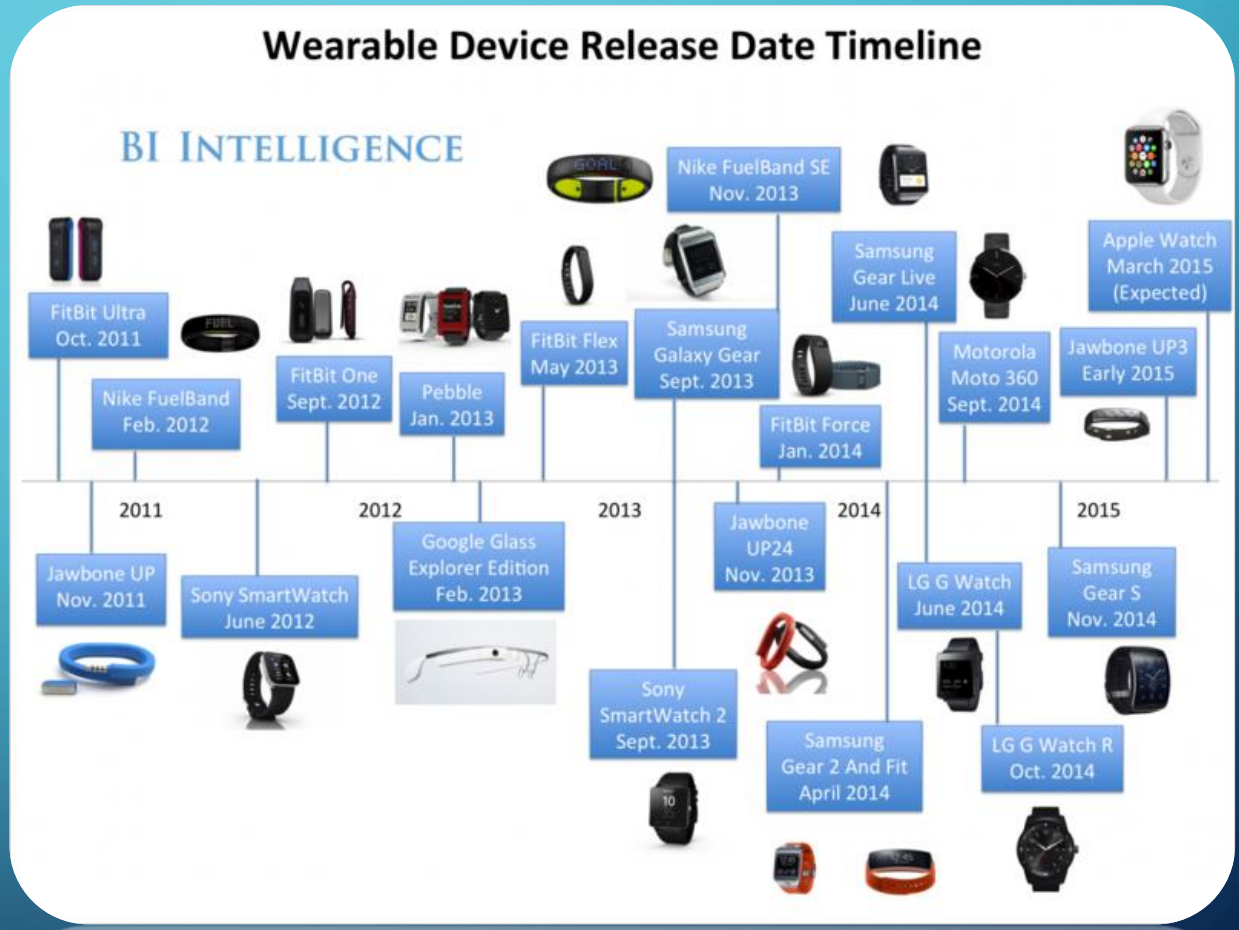
GENERAL TRENDS IN DIGITAL TOURISM
TECHNOLOGICAL MEGATRENDS – WEARABLES….



Quantum computers

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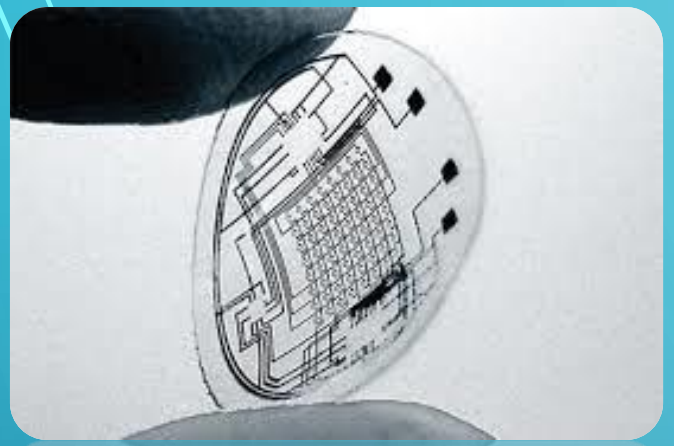
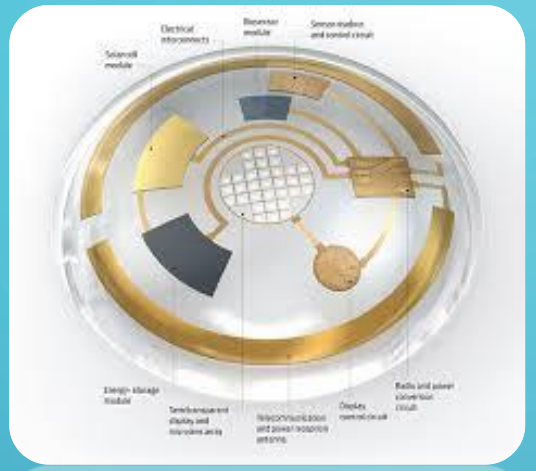
TECHNOLOGICAL MEGATREND – WEARABLES….

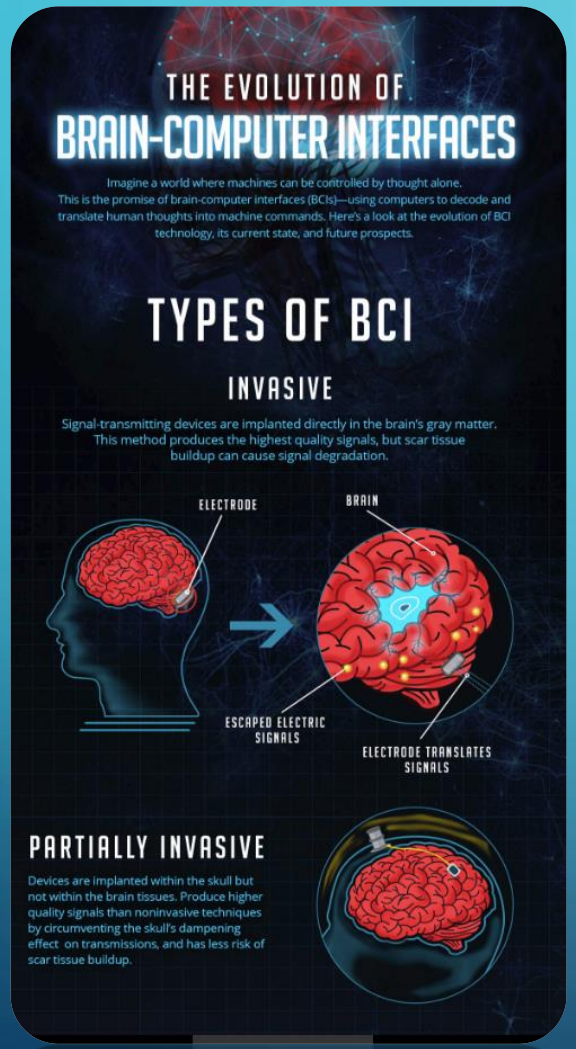




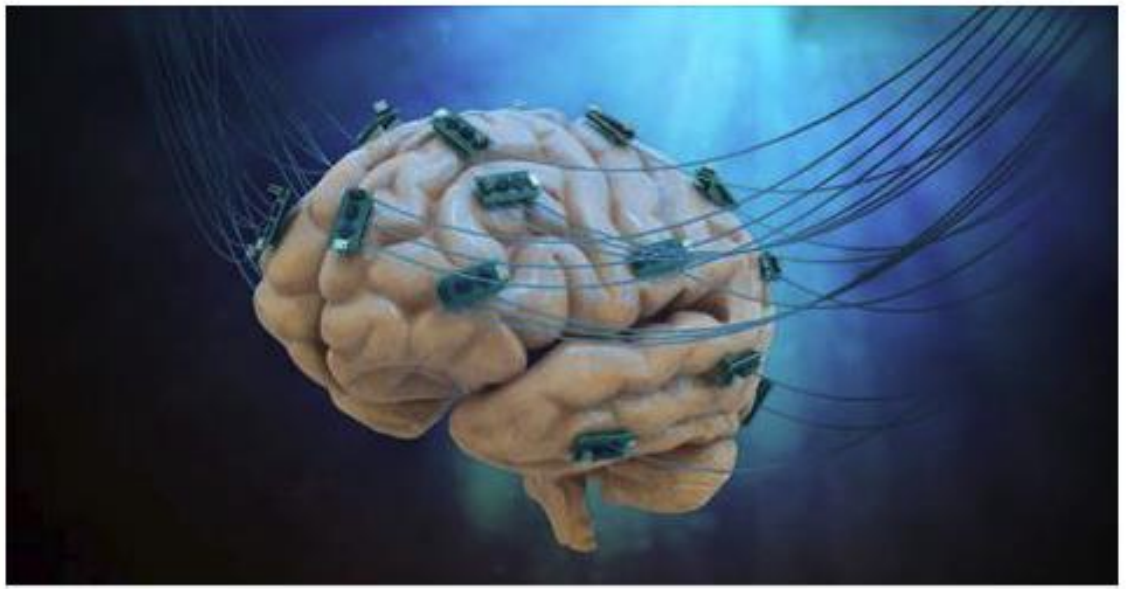
Bionic contact lenses

GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – BRAIN-COMPUTER INTERFACE



Brainternet! here very soon!



Scientists Connect A Human Brain To The Internet For The First Time

Tired of tapping on the screen of your pesky, high-end smartphone to browse the Internet? No fear, because the awkwardly named "Brainternet" is here! A tea

IFLSCIENCE.COM

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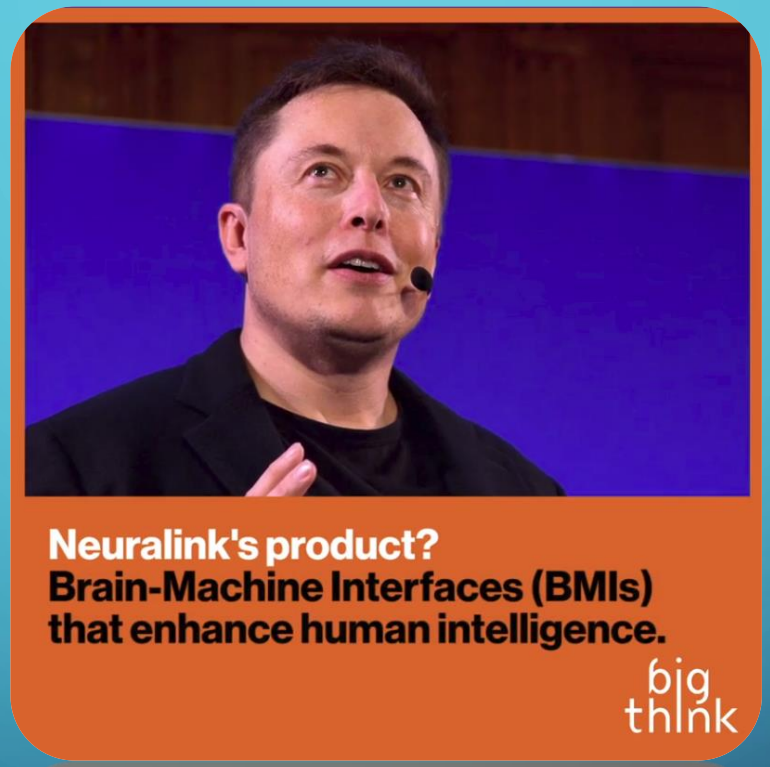
GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – BRAIN-COMPUTER INTERFACE



Should we be scared?

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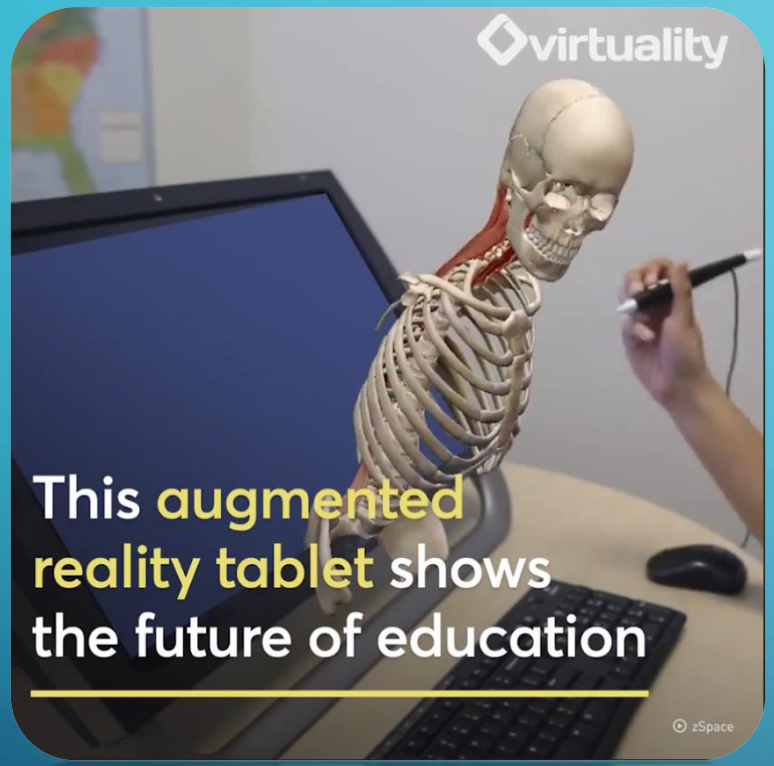
GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – VR, AR, 4D, 5D ….



TOURISM: Old Uppsala AR experience of Vendel time year 550 AD

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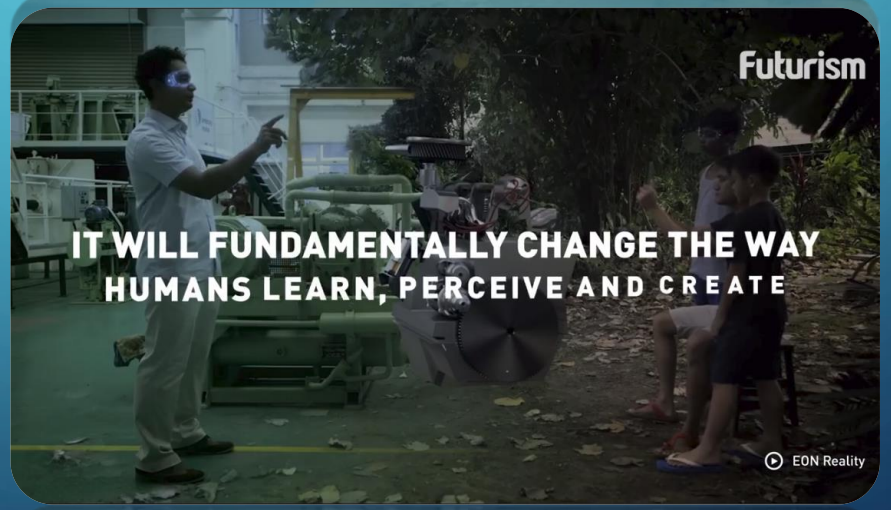
MEGATREND – AUGMENTED REALITY AR



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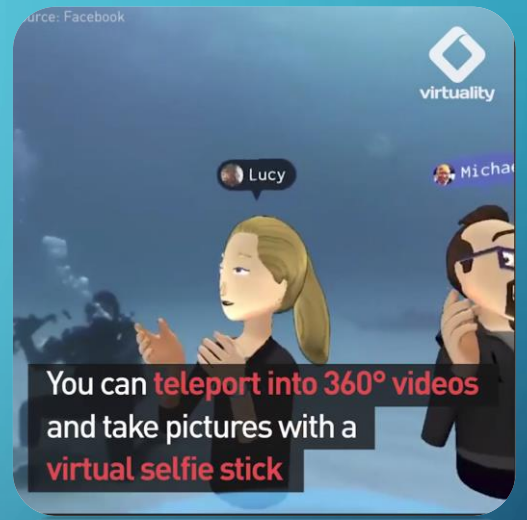
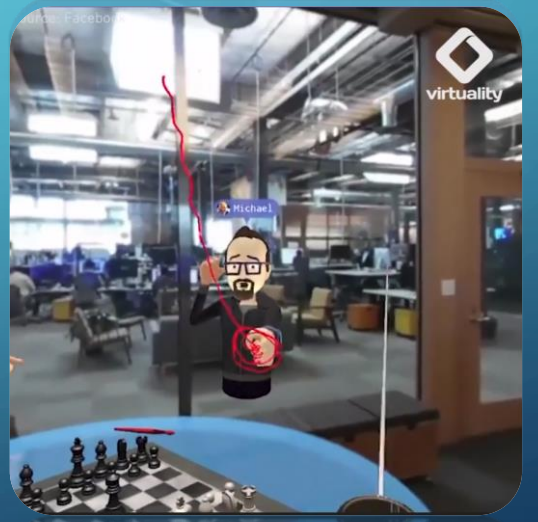
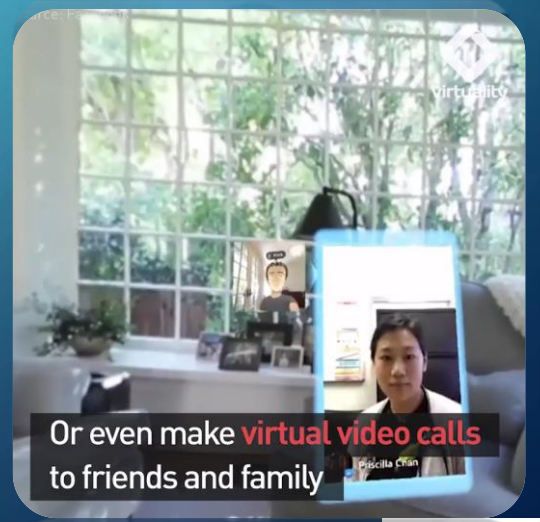
TECHNOLOGICAL MEGATREND – VIRTUAL REALITY VR







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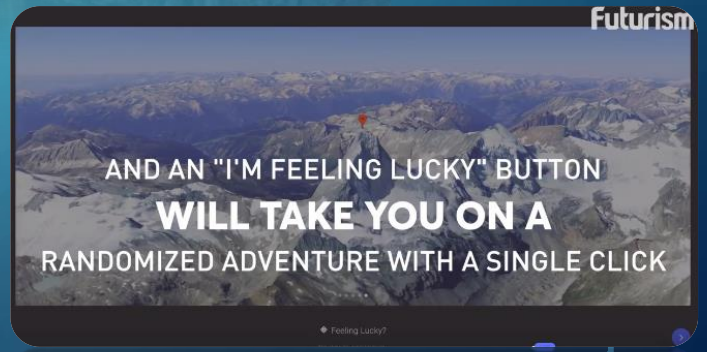
TECHNOLOGICAL MEGATREND – VIRTUAL REALITY TOURIST



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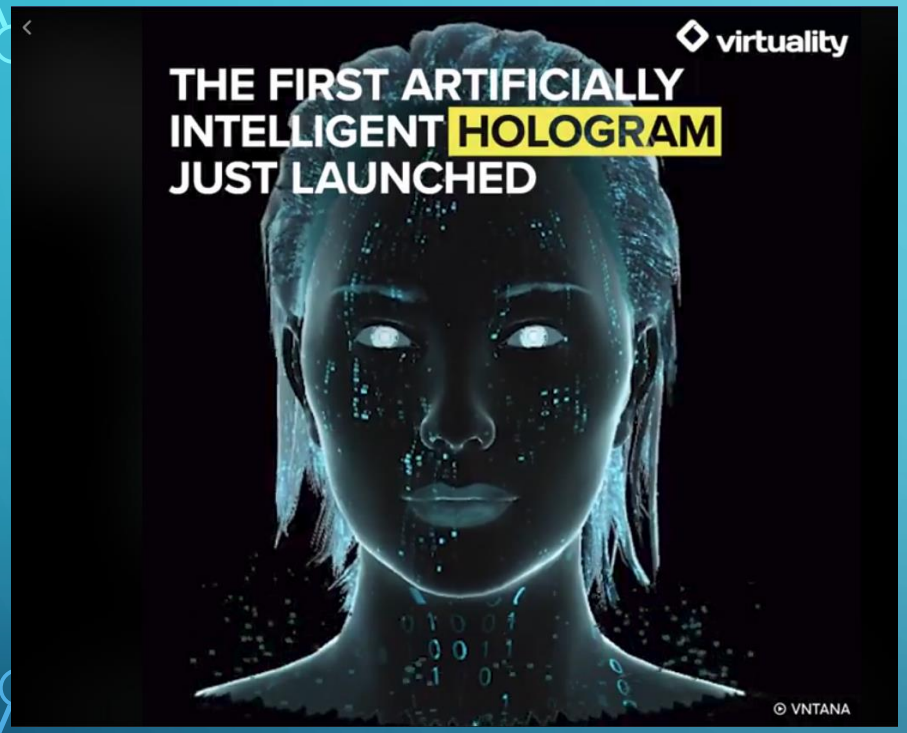
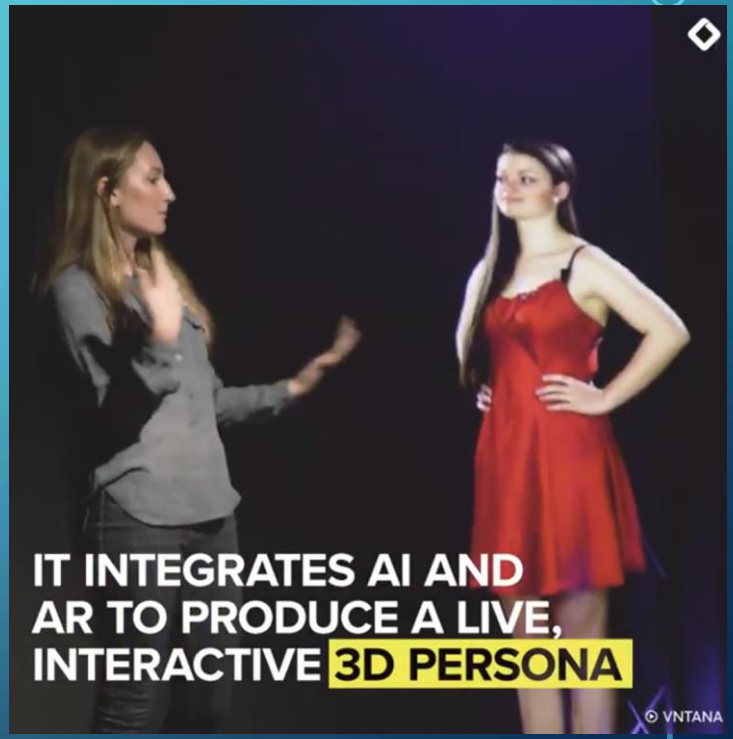
TECHNOLOGICAL MEGATREND – HOLOGRAM





GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – AI SERVICES

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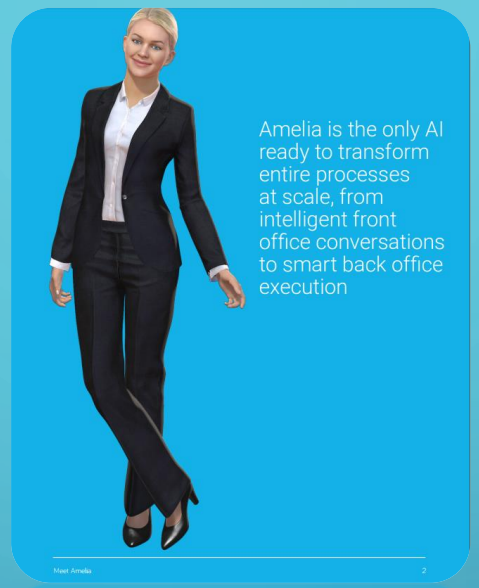
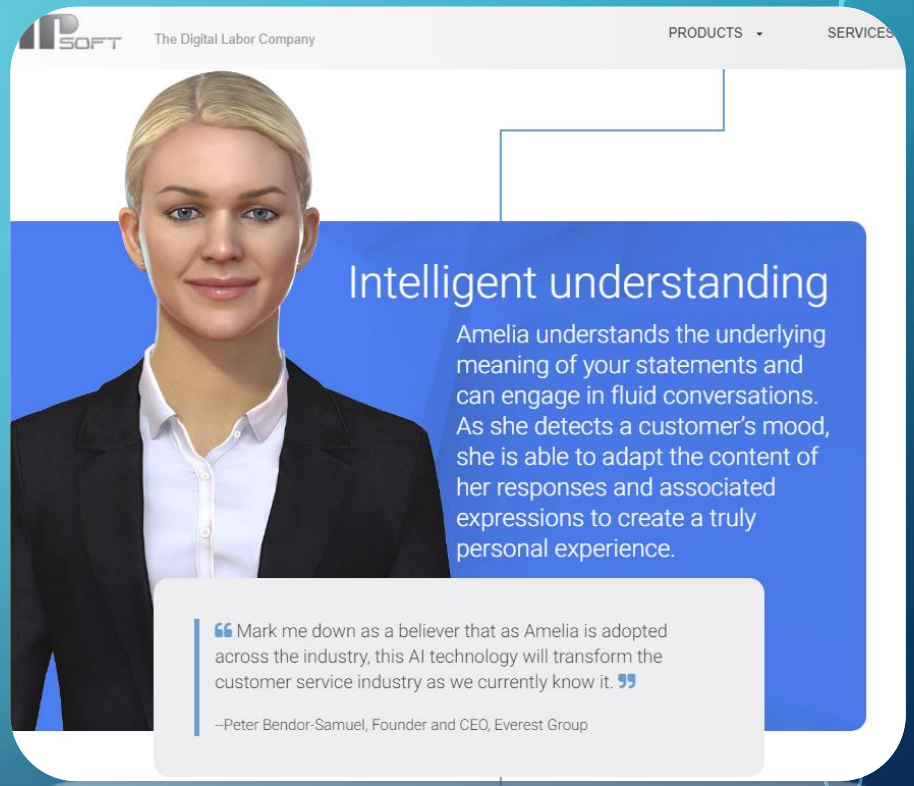
GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – AI SERVICES





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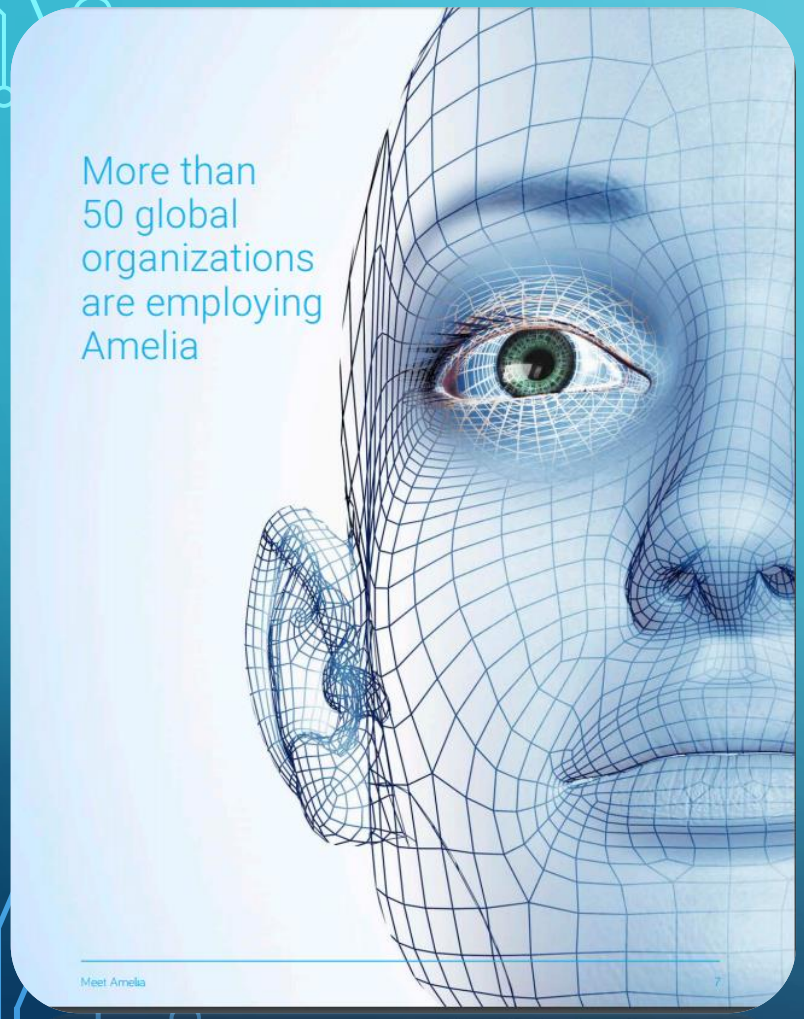
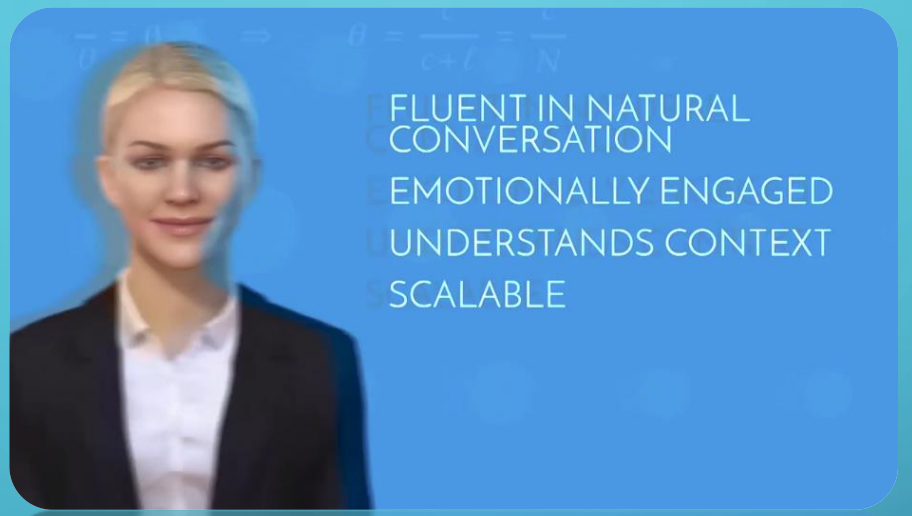
GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – AI SERVICES





Hospitality School
Student Registration Clerk

Hotel Group
IT Service Desk

SEB Bank
Customer Service Agent

Ensuring Superior Customer Experience

Lend the keys to Amelia, who can manage all aspects of customer experience. She is aware of the full context of every conversation so she can adapt her social tone and actions accordingly. When Amelia needs to escalate a call, she passes on all relevant information to her human colleagues so the conversation can flow smoothly without requiring customers to repeat themselves.

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GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – AI ROBOTS

Should we be scared?

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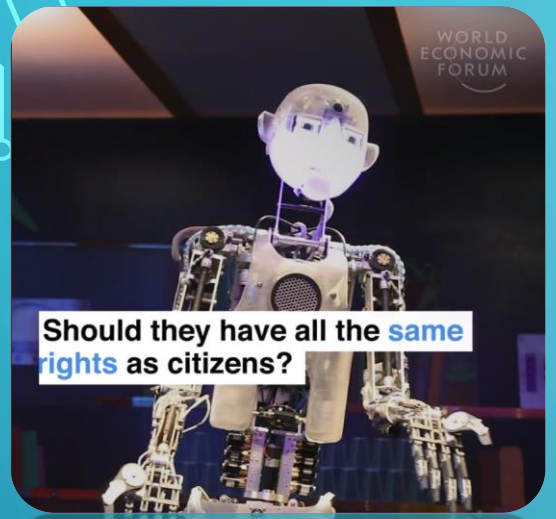
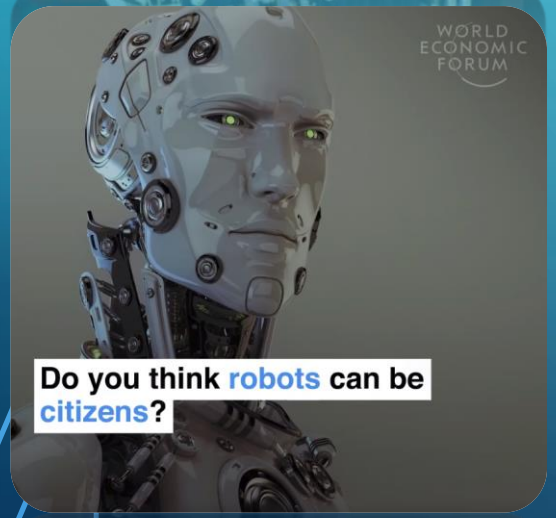
TECHNOLOGICAL MEGATREND – AI ROBOTS

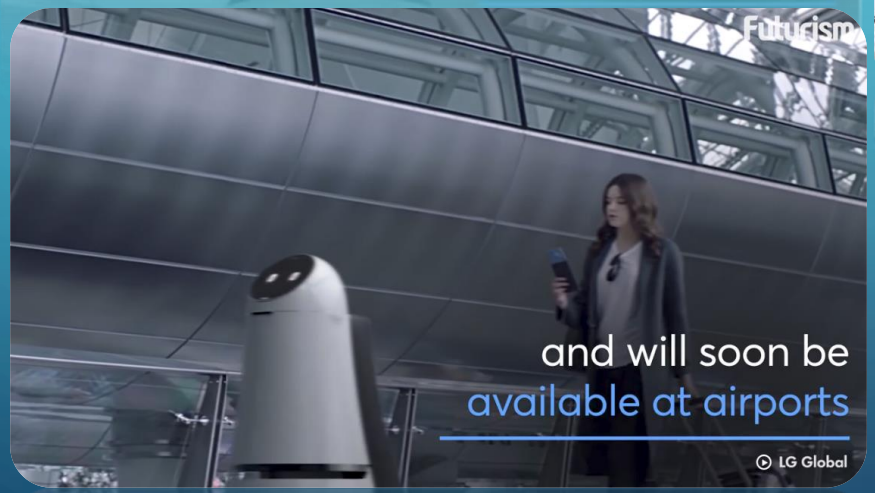


TOURISM

Robots in

Service & hospitlity





Should we be scared?

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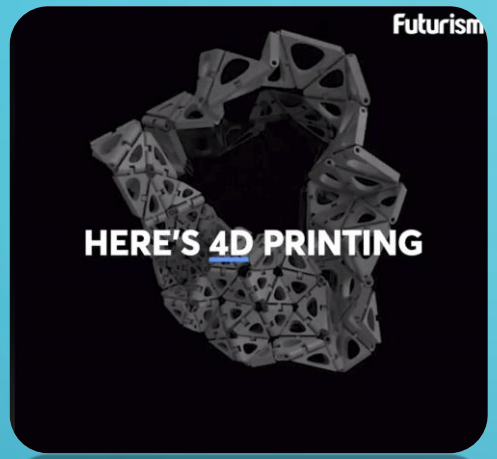
GENERAL TRENDS IN DIGITAL TOURISM

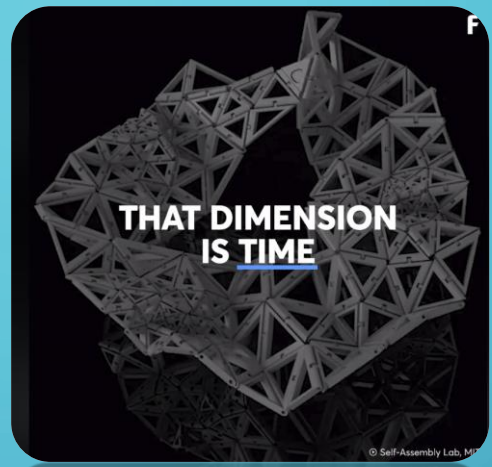
TECHNOLOGICAL MEGATREND – AI ROBOTS

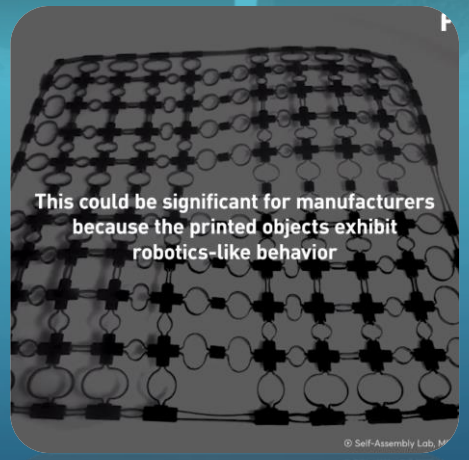
Self-driving transportation

GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – 3, 4 D-PRINTING







TOURISM

Print your own smart souvenirs

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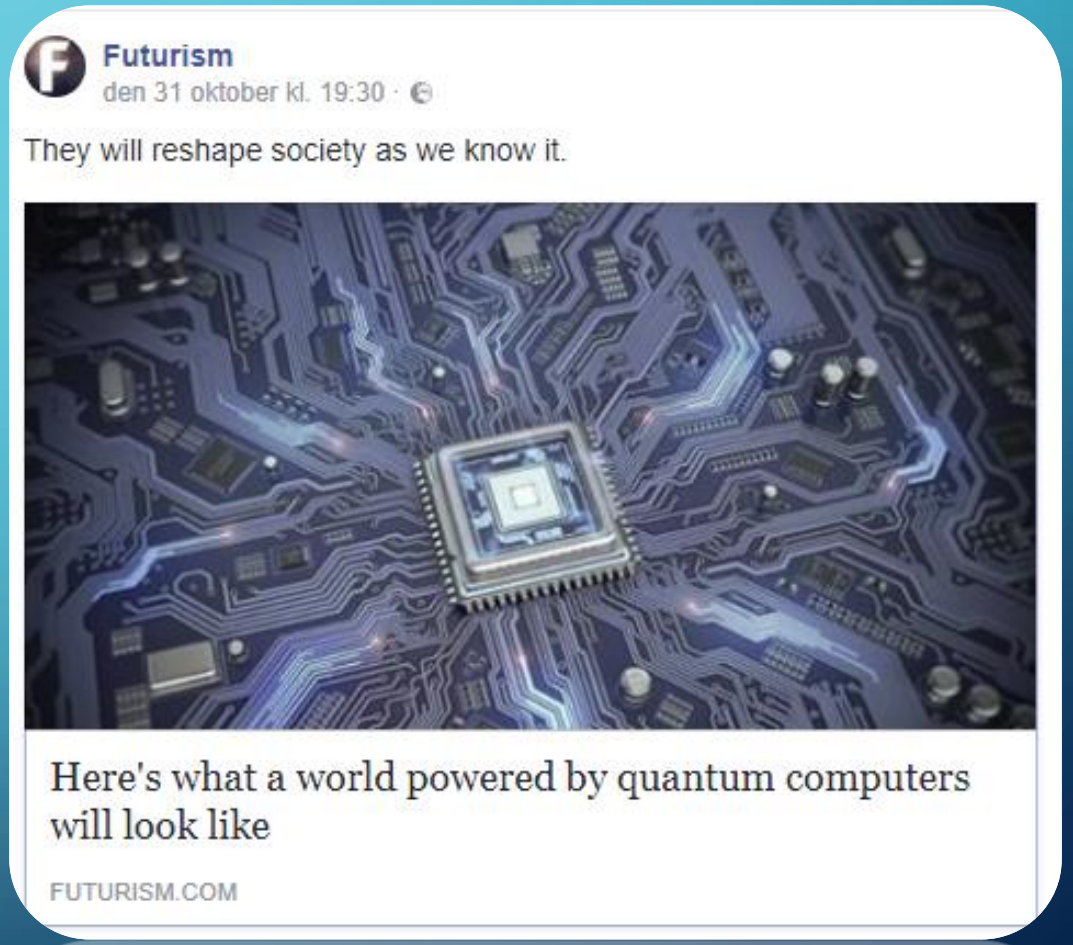
GENERAL TRENDS IN DIGITAL TOURISM

TECHNOLOGICAL MEGATREND – QUANTUM COMPUTING

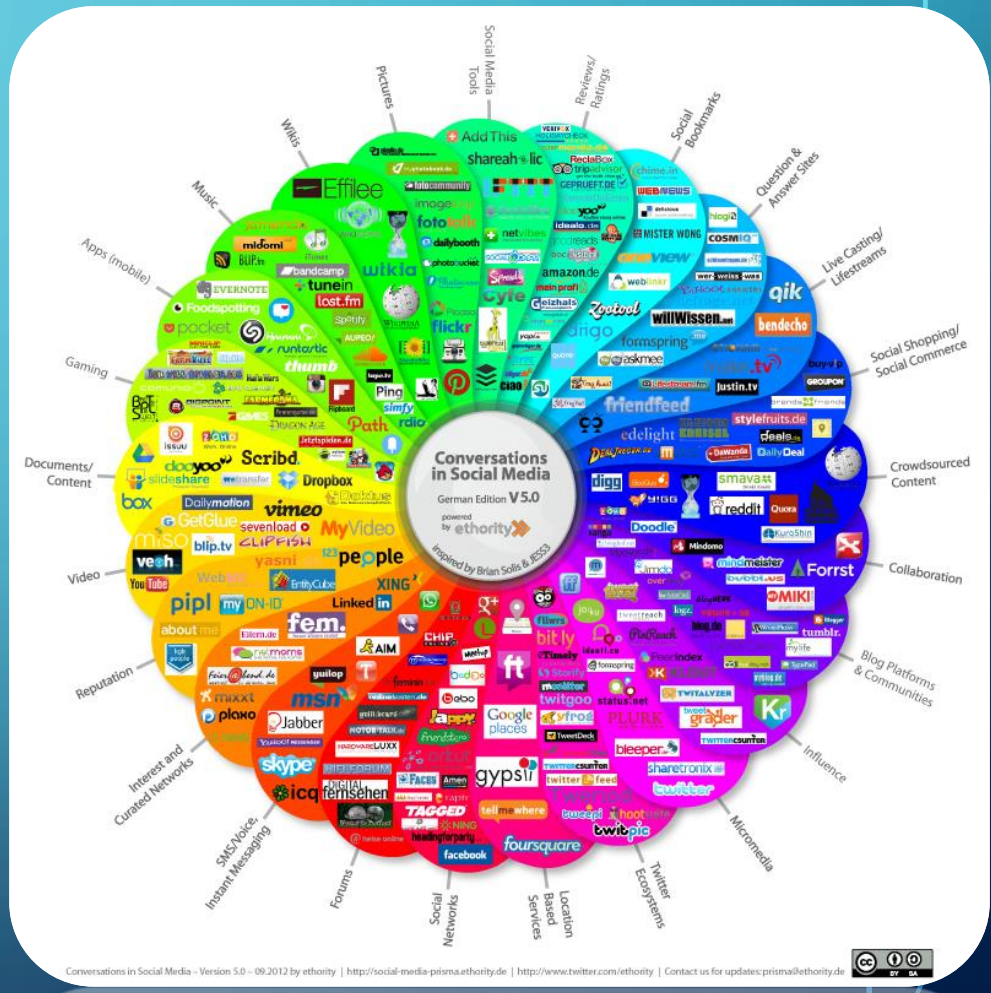
computer technology 2.0 → 3.0

Moore´s Law – exponential growth of computer capacity, doubling each 24 month



GENERAL TRENDS IN DIGITAL TOURISM

MEGATREND – TOGETHERNESS



World of Social Media

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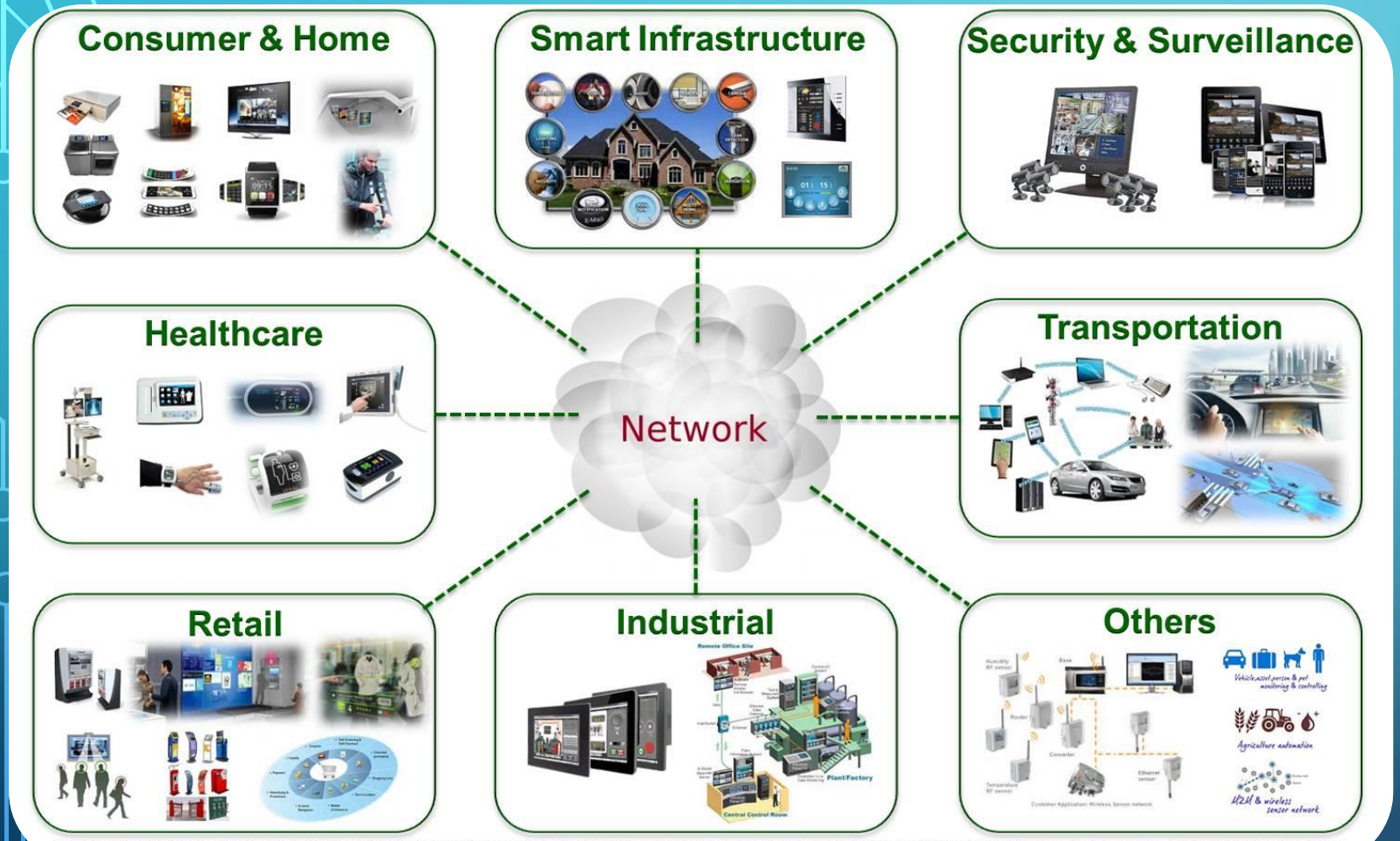
GENERAL TRENDS IN DIGITAL TOURISM
MEGATREND – INTERNET OF THINGS



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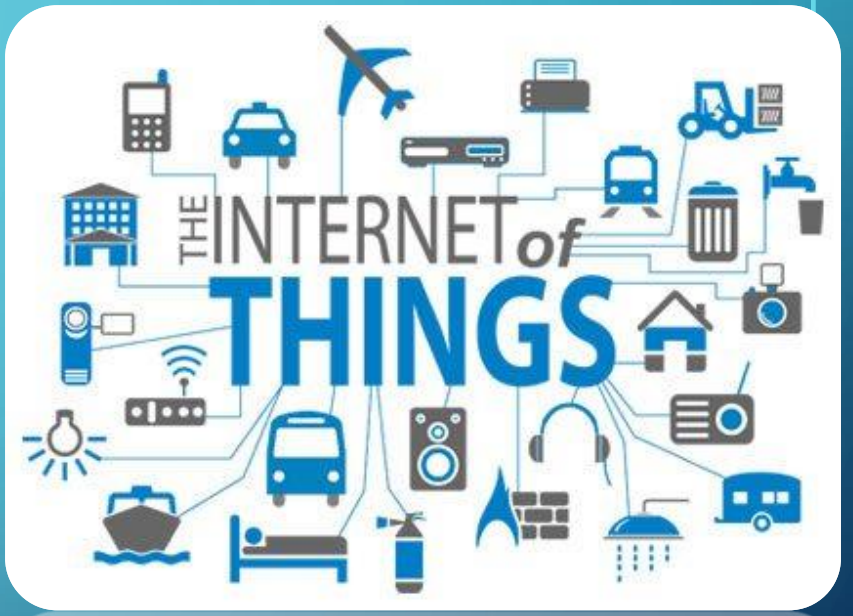

Inter-connected interactive World

GENERAL TRENDS IN DIGITAL TOURISM
MEGATREND – INTERNET OF THINGS

Smart homes

Smart Cities

Smart Destination

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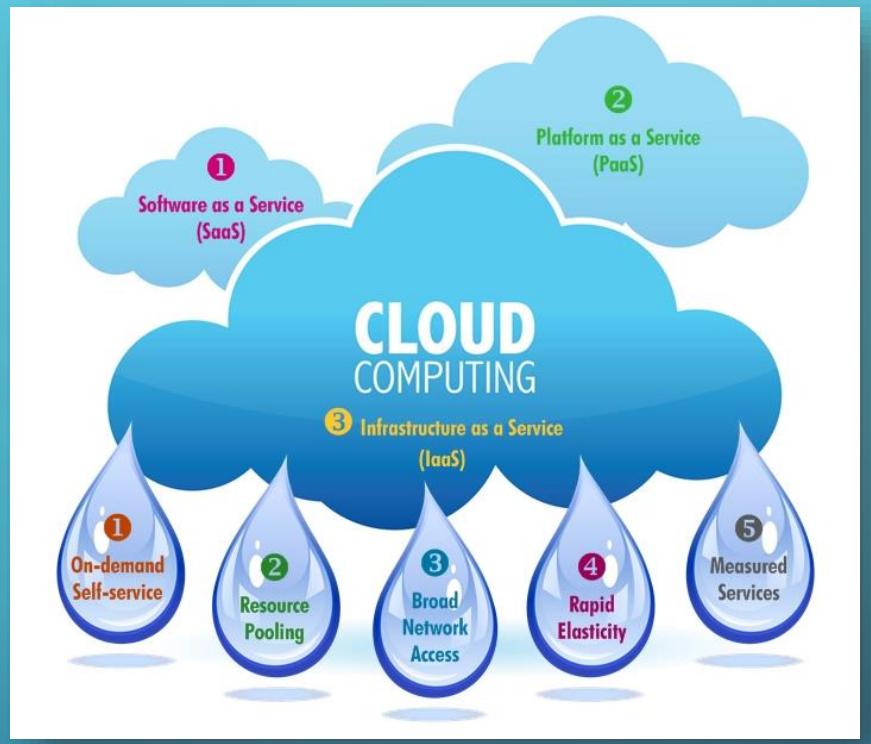
GENERAL TRENDS IN DIGITAL TOURISM
MEGATREND – CLOUD COMPUTING & BIG DATA



Customers;

Digital Footprint →

Big Data

Businesses;

Cloud computing →

Data-lakes

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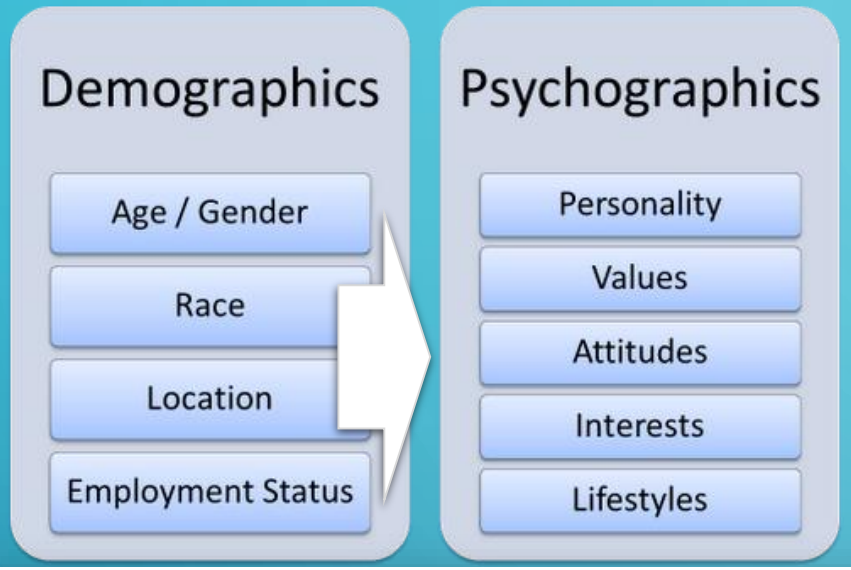
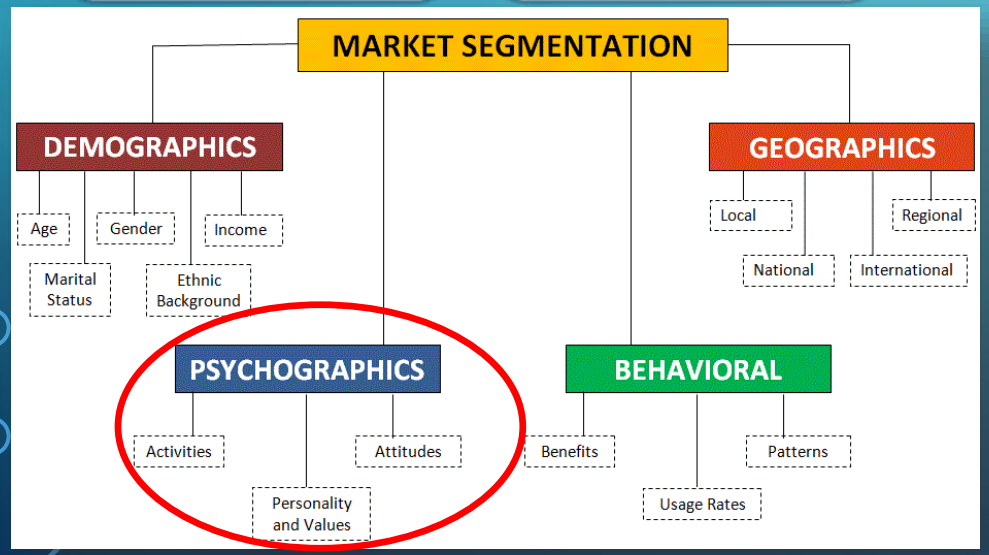
GENERAL TRENDS IN DIGITAL TOURISM

MEGATREND – PSYCHOMETRICS/PSYCHOGRAPHICS





The Data That Turned the World Upside Down

Psychologist Michal Kosinski developed a method to analyze people in minute detail based on their Facebook activity. Did a similar tool help propel Donald Trump to victory?

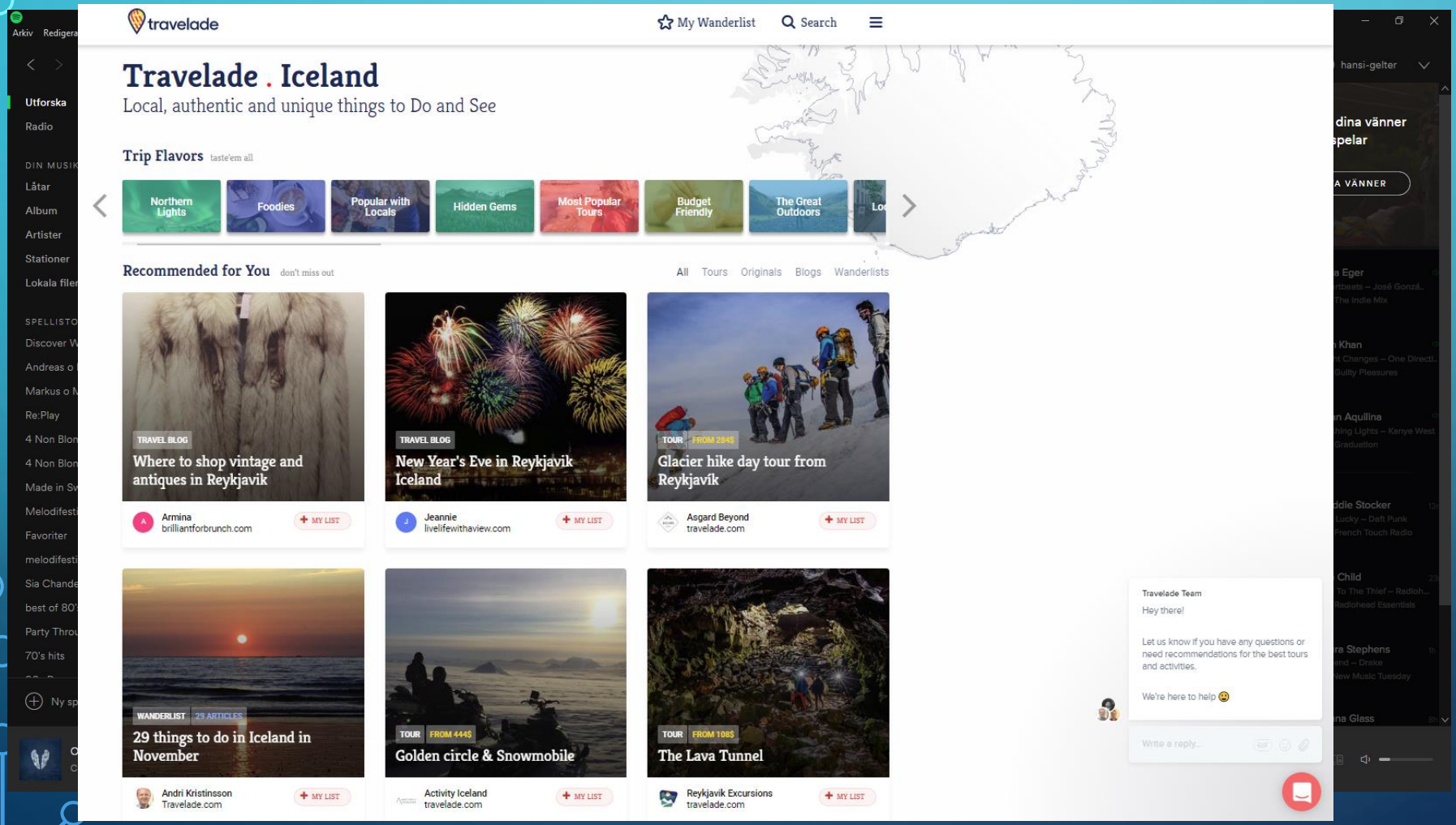
MOTHERBOARD.VICE.COM

Big Data → Microtargeting

DIGITAL TRENDS IN TRAVEL DISTRIBUTION

AI IN MARKETING AND DISTRIBUTION

SPOTIFY for TOURISM



Artificial Intelligence

Content meta data

User behaviour data

⇒

Play list = Wander List

Recommendations

Most Popular

Etc.

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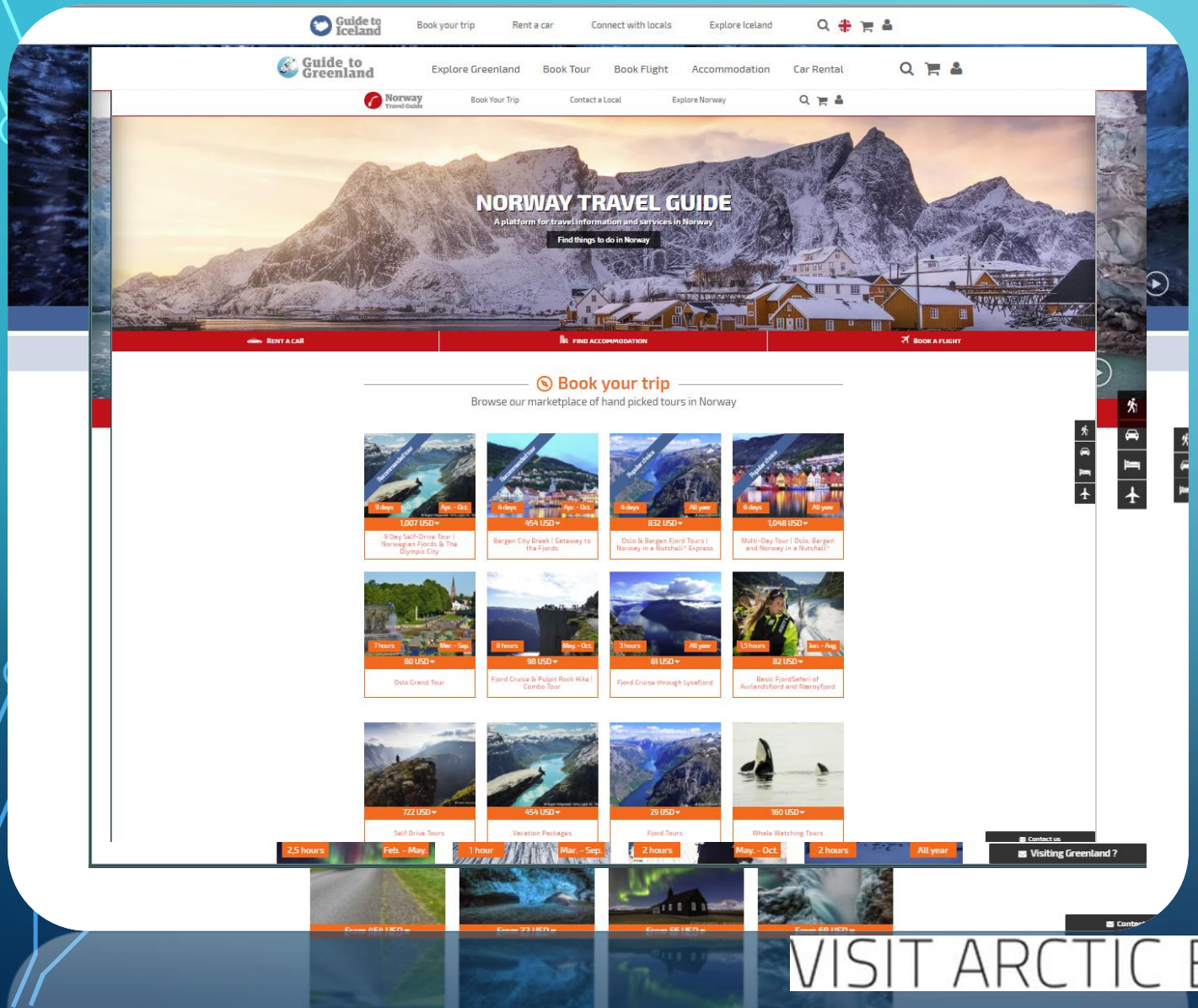
DIGITAL TRENDS IN TRAVEL DISTRIBUTION

AI IN MARKETING AND DISTRIBUTION



MEGA ONLINE TRAVEL RETAILER

Dynamic product presentation of 5000 products of 1000 suppliers

Guide to Iceland

Guide to Greenland

Norway Travel Guide

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Traditional value chain

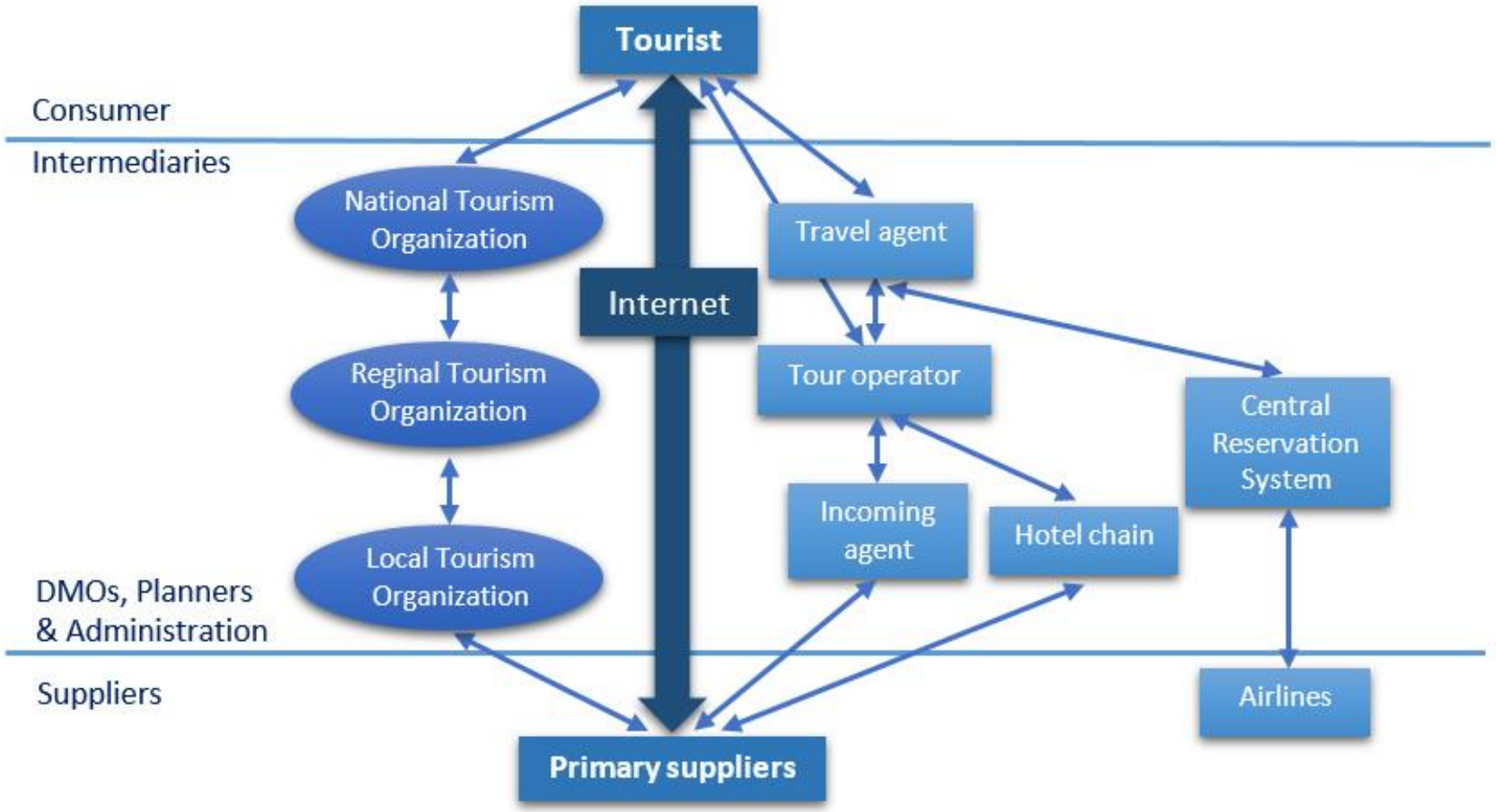

Figure 13. Simplified traditional travel and tourism industry value chain (adapted after Werthner & Klein 1999)

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New emergin value chain

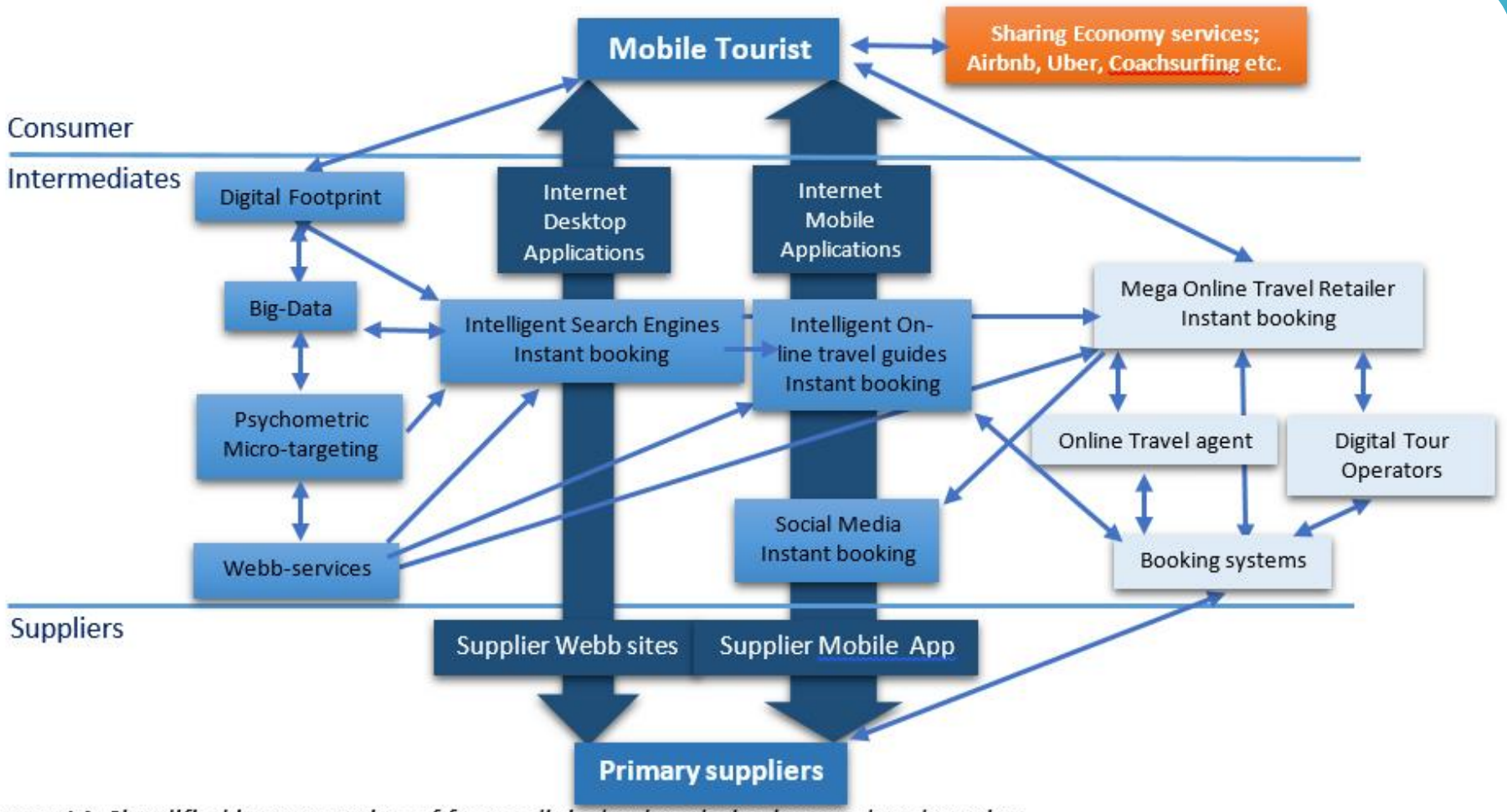

Figure 14. Simplified interpretation of future digital value chains in travel and tourism.

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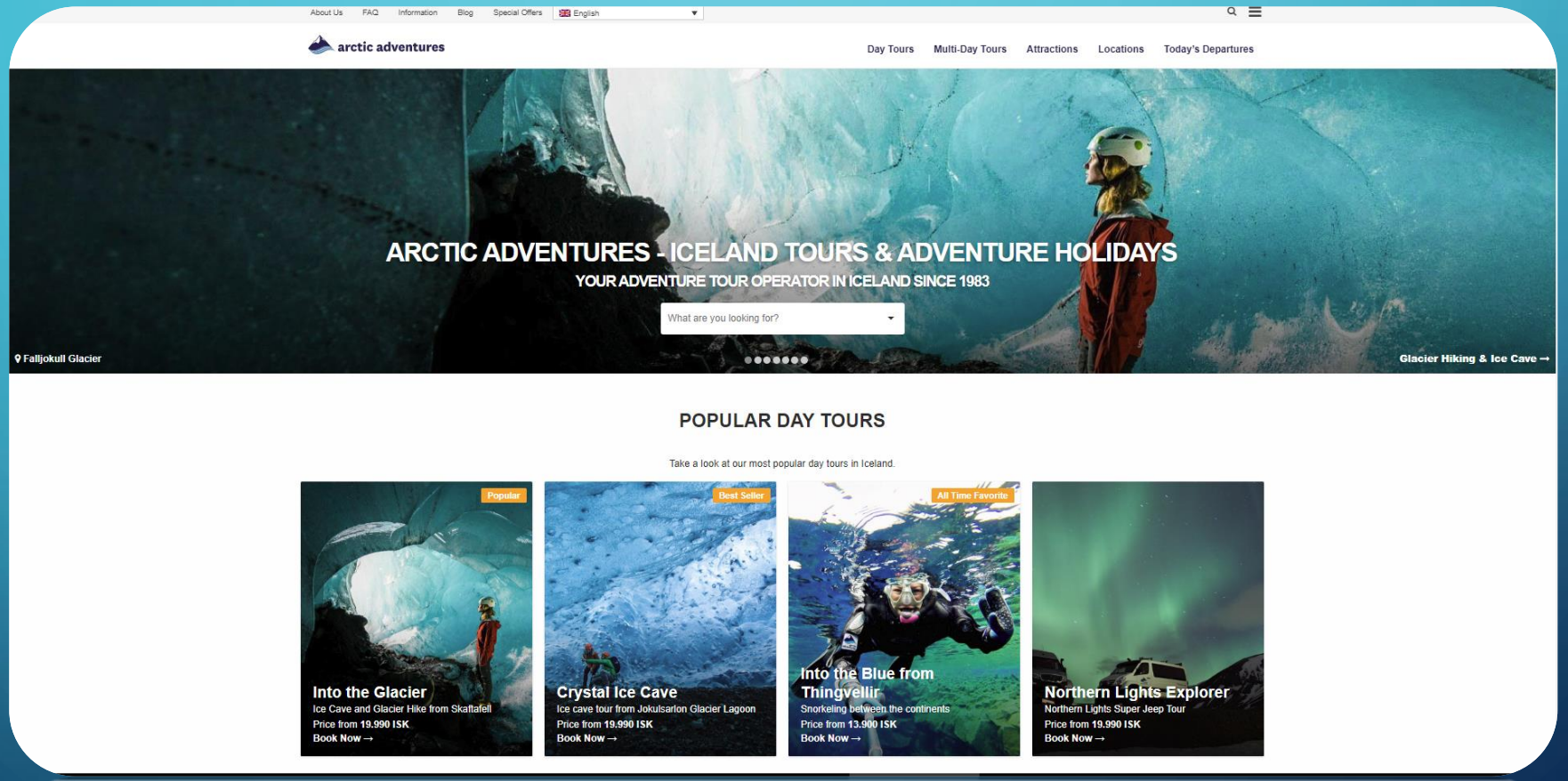
Disrupted value-chain by Cross-Selling by providers (BOKUN)

Arctic Adventure 100 own products, 1000 products on webpage



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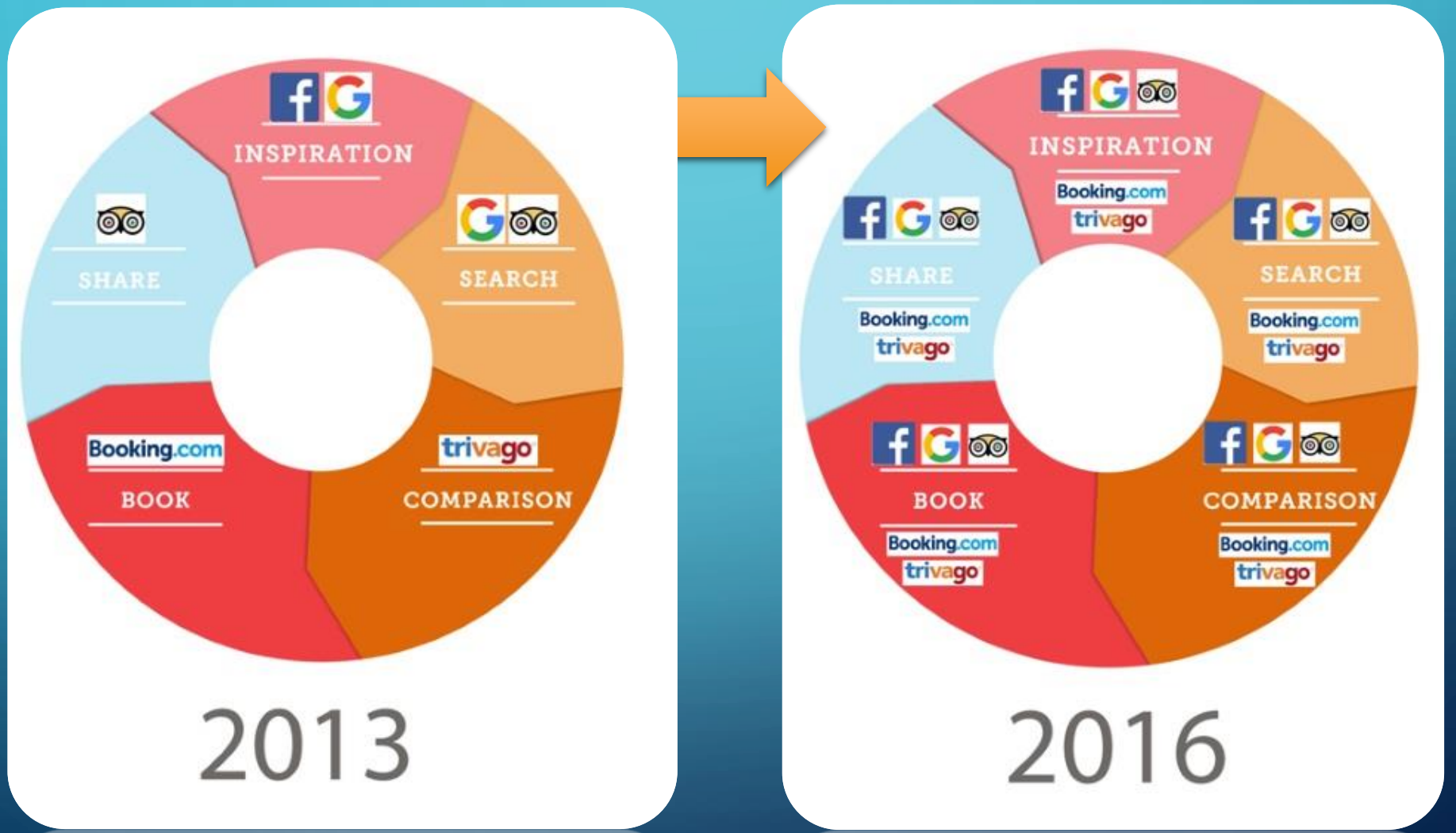
Disrupted value-chain by Direct booking in Google, Facebook and TripAdvisor

Figure 18. Illustrate how participants in the service cycle have changed in only three years by the introduction of booking services on Google ("Book on Google"), Facebook, and TripAdvisor. (Picture retrieved from tnooz)



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DIGITAL TRENDS IN CUSTOMER DIGITAL MOBILE BEHAVIOUR

NEW DIGITAL TRAVELLERS

Generation C (Click, Content, Connected, Computer, Community, Creating, & Celebrities), **Millenials**, DigiKids, Digital Natives, Generation Now, Instant Generation, @generation, Internet Generation, Cyber Generation, New Silent Generation, Homo Zappiens

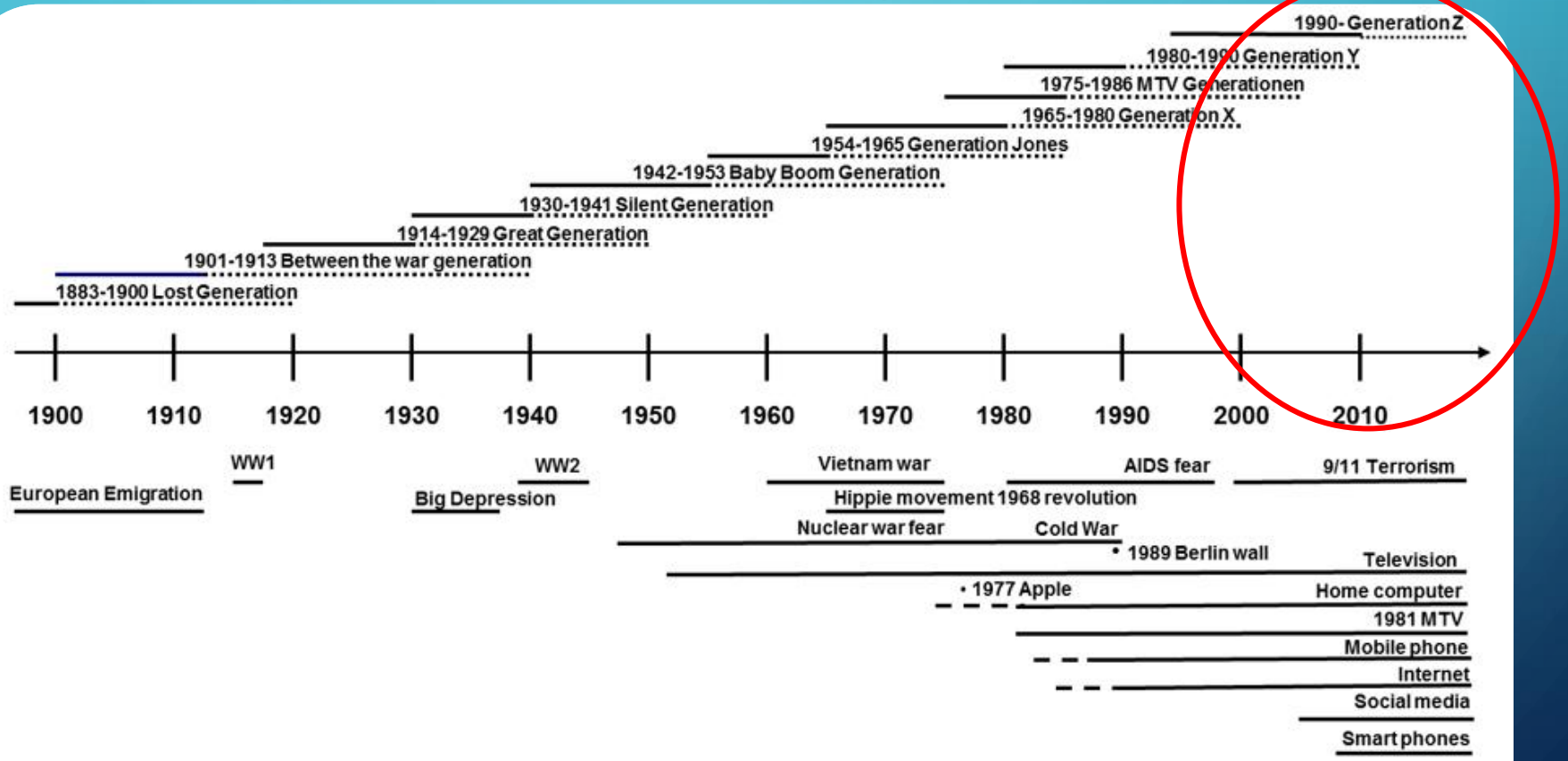

Figure 7. The Generation Theory of Strauss and Howe. Dotted lines indicate period of growing up and forming values, behaviours and lifestyles. (Own interpretation).

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DIGITAL TRENDS IN CUSTOMER DIGITAL MOBILE BEHAVIOUR

MOBILE MICRO-MOMENTS

In real-life Micro-moments of “Amy” using mobile or desktop when planning for a trip to Disney World (from Google).

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DIGITAL TRENDS IN CUSTOMER DIGITAL MOBILE BEHAVIOUR

MOBILE MICRO-MOMENTS

Google:

- Want-to-get-away, dreaming moments
- Time-to-make-a-plan organizing moments "travel hacks“
- Let´s-book-it, booking moment
- Can´t-wait-to-go moment, anticipation moments
- Can´t-wait-to-explore, experiencing moments

“I-want-to-know moments”
“I-want-to-do moments”
“moment-of-truth”
“I-want-to-go-to-your-store moments”
“I-want-to-buy moments”
“Is-it-worth moments”
“I-wana-talk-to-humans moments”
“New-day-new-me moments”
“Ready-for-change moments”
“Didn´t-plan-for-this moments”
“time-for-a-new-one moments”
“Show-me-how moments”

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DIGITAL TRENDS IN DIGITAL TOURISM MARKETING

Snap-shots:

- Push-marketing → pull-marketing
- Electronic-word-of-mouth (eWoM)
- User-generated content
- Social context mobile marketing (SoCoMo)
- Location-based marketing
- Location-based social Network Marketing
- Real-time-marketing during real-time customer journey
- Infographics
- Immersive storytelling (360-videos)
- VR and AR

DIGITAL TRENDS IN CUSTOMER DIGITAL MOBILE BEHAVIOUR

Snap-shots:

- Importance of understanding Traveller´s road to decision
- Micro-moments in travel
- Travellers emotional travelling pre-, during and after
- Cross-device movements
- Mobile-in-destination behaviour
- Anywhere-and-anytime availability
- Radical self-reliance of modern travellers
- Diversity and complexity of behaviour
- Blurring of on-site and post-travel experience

CONCLUSIONS

WOW!

“Going digital is no longer an option – it´s a must!”

Lisbeth Bahl-Poulsen, DG Growth, EU-commission

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The future belongs to those who prepare for it today.

The Future starts now!

Welcome to the TOURISM MATRIX

Thank you for your attention !

Takk for oppmerksomheten !

Tack för din uppmärksamhet !

Kiitos mielenkiinnostanne !

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