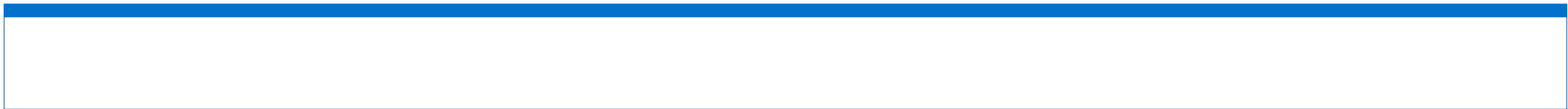


# **MEGATRENDS**

## **Innovations in technology and their impact on consumer services**



# Who am I?

- Dave Kenworthy
- Director of Digital Services
- CoSector – University of London
- Providing technology and wisdom for learning and education
- I am proud to be a generalist

# Why?

- Why should we spend time considering the impact of technology on us as consumers?
  - Question everything
  - Hype-busting
  - Link technology to outcomes for people
  - Spot the opportunities
  - Confidence to not be an expert

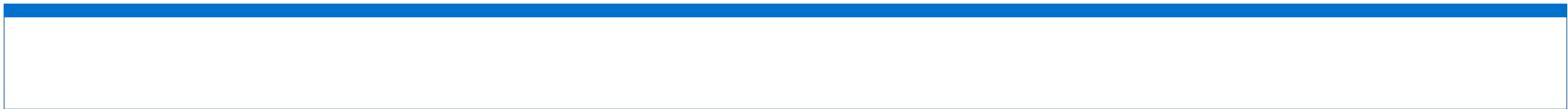
# Context

- Technology drives change in the world around us.
- Or does it?
- People drive change
  - Comfort / convenience
  - Safety
  - Cost
  - Competition
  - Greed
  - etc.
- And they use technology to achieve it

# What are the key impacts?

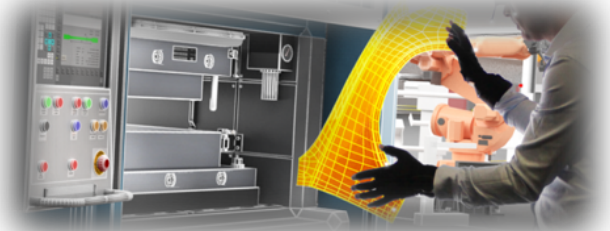
- Immediacy
- Information
- Personalisation
- Distribution

# The Hype



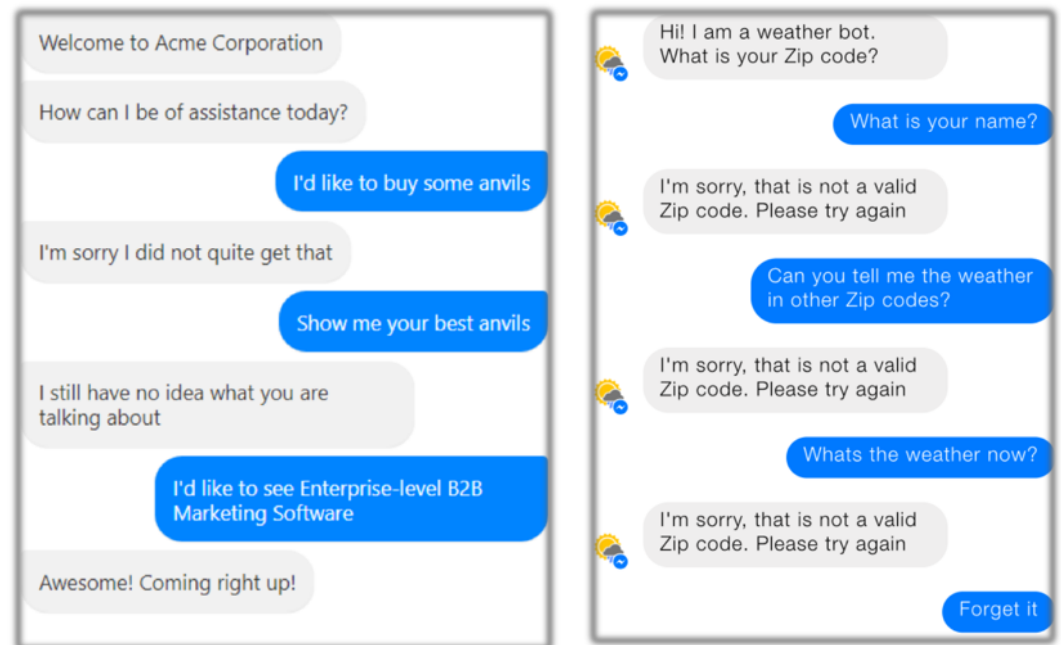
# The Hype – Virtual / Augmented Reality

- Impressive toy, but
- Very niche application
- High design/implementation costs
- Practicality
  - Headsets / Glasses
  - Eye implants? What about upgrades etc? Brand wars?



# The Hype – AI (Artificial Intelligence)

- True AI is rare
- Could even the best AI solve some of the problems you are paid to solve?
- Chatbots are clever linguistic analysis used to form queries on limited datasets with the results presented in conversational form





# The Hype – Mobile Payments

- Mobile Payments

- ☐ Does it change our behaviour or the possibilities of what we can do?
- ☐ Not enough
- ☐ Is it quicker?



# The Hype – Voice Recognition

## ■ Voice Control

- Requires 100% accuracy
- 99.99999%... is not good enough
- Why do we actually want it?
- Is it a solution looking for a problem?



# The Hype - Blockchain

- A way of ensuring secure digital records WITHOUT a centralised master data store, i.e. **distributed**
- Used to underpin cryptocurrency such as BitCoin
- Being explored by major corporations but limited real life use cases found so far
- except...
- Secure financial transactions without centralised (government) visibility or control.

# Or is it?

"I think there is a world market for maybe five computers.

*Thomas Watson, president of IBM, 1943*

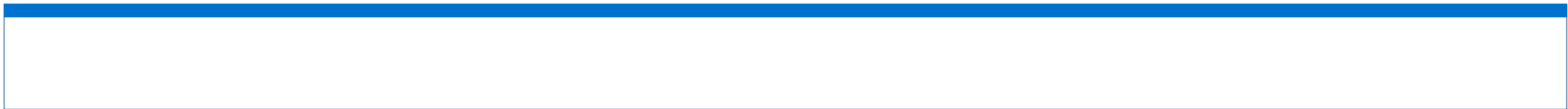
"There is no reason anyone would want a computer in their home. "

*Ken Olsen, founder of Digital Equipment Corporation, 1977*

"Almost all of the many predictions now being made about 1996 hinge on the Internet's continuing exponential growth. But I predict the Internet will soon go spectacularly supernova and in 1996 catastrophically collapse. "

*Robert Metcalfe, founder of 3Com, 1995*

# Technology with real impact



# SaaS (Software-as-a-Service)

- Renting of software
- Pay-as-you use but often free
- No installation
- **Immediate** access
- Minimal technical expertise required. Do you need an IT dept to run a business?
- Professional capabilities available to organisations / individuals **immediately**



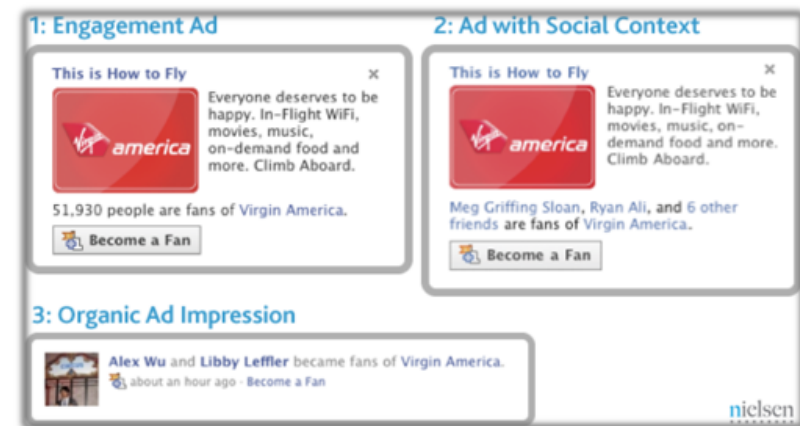
# Social Media

- Use has evolved from personal relationships to:
  - Advertising
  - Customer Service
  - Issue Campaigns
  - Political Influence



# Social Media

- Pervasive and Embedded Advertising
  - Harder to distinguish content vs. advertising
- Personalised advertising so far seems unsophisticated





# Social Media

- Low barrier to **immediate** and direct (yet public) conversation



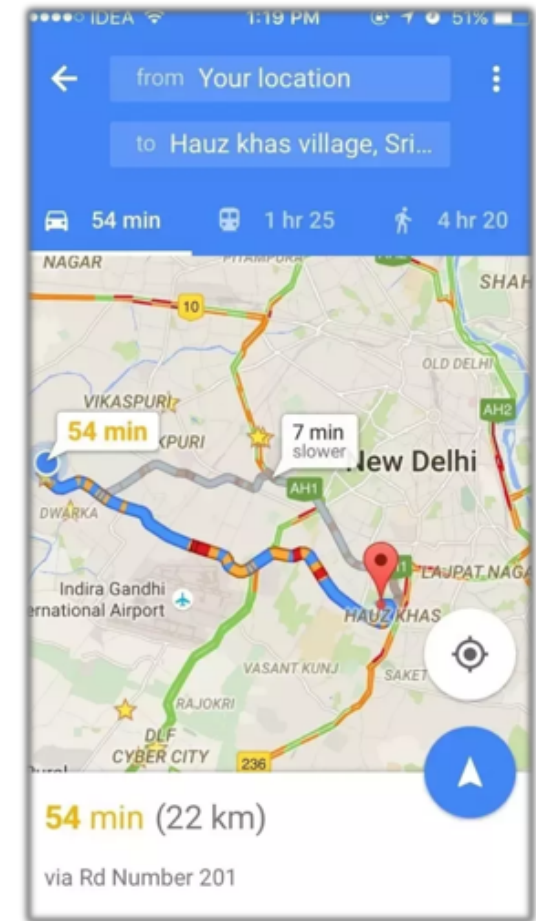
# Social Media

- Powerful for large scale social and political influence



# Data / Information

- Capability to capture, process and analyse huge datasets
  - Only possible with technology
- Privacy concerns
  - Concern at our data being used in ways that we are not comfortable with
  - Is giving up some privacy a fair price to pay for free technology that improves our lives?



# Data / Information

- Information at our fingertips when we consume:

- ☐ Prices
- ☐ Reviews
- ☐ Source context is critically important
- ☐ Fake news still persists



- ☐ **Are we smart enough to navigate all the data available to us?**

# Distribution of Technology (Taxis)

- What if I didn't have to buy and fit meters and radios for all my taxis?
- What if I didn't need to rent a taxi office?
- What if I didn't need people manning my phone lines?
- What if I could open a branch in another town (or country) without buying more meters and renting another office?
- What if I knew where all my drivers were?
- What if I knew where all my passengers were?

# Distribution of Technology (Taxis)

- Scale without scaling investment
- Scale = immediacy of service for consumers
- Location information = Predictability and choice for informed passenger (and driver)



# Distribution of Technology (Parcel Delivery)

- What if I could have delivery transport without buying vans and fitting them with purchased radios, trackers etc?
- What if I don't need a place to store my delivery vans?
- What if I knew where my transport was?
- What if I had so many vans that I could have vans just deliver one parcel to one customer?



# Distribution of Technology (Parcel Delivery)

- Amazon flex
  - "Make £12-£15/hr delivering parcels with Amazon. All you need is a vehicle, an Android or iOS phone, and some free time. Be your own boss: make great money, delivering when you want."
- Easy scale without investment
- Scale = immediacy for consumer
- One-Day Delivery
- Same-Day Delivery



amazon FLEX



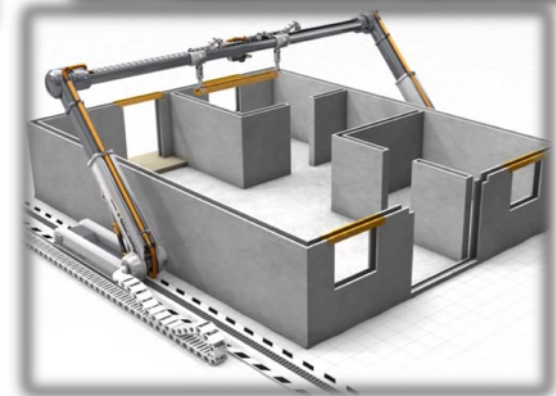


# 3D Printing

- What if I didn't even have to deliver my goods?
- What if I didn't have to store my goods?
- What if I didn't even have to manufacture my goods
- What if I could make spare parts for old or obscure items?
- What if I want to customise the item I'm buying?

# 3D Printing

- Car parts
- Clothing
- Body parts
- Houses
- Food
- 3D Printers...



# 3D Printing

- What if I didn't even have to deliver my goods?
- What if I didn't have to store my goods?
- What if I didn't even have to manufacture my goods
- What if I could make spare parts for old or obscure items?
- What if I want to customise the item I'm buying?

For consumers, this means:

Immediacy and Personalisation

# What are the key impacts?

- Immediacy
- Information
- Personalisation
- Distribution

# What could this mean for HE?

## ■ Immediacy

- I want to start my course NOW
- I want to be assessed NOW
- I want my qualification NOW

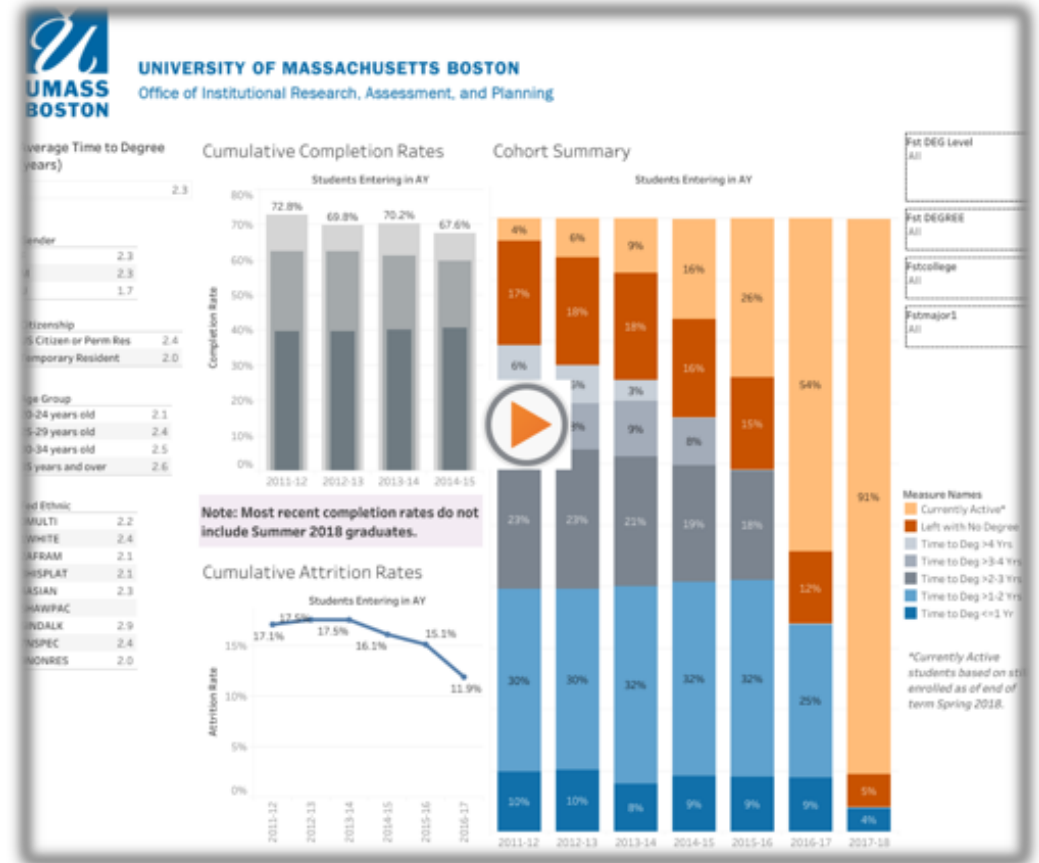
"For thousands of future students wanting a faster pace of learning and a faster route into the workplace at a lower overall cost, two-year degrees will transform their choices. "

Chris Skidmore, Universities Minister, 2019

# What could this mean for HE?

## ■ Information

- What will you do with data about me?
  - Will it help me?
  - Will it help the institution?



# What could this mean for HE?

## ■ Personalisation

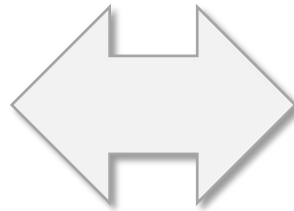
- I want to take my exam at 6am
- I want to study for my degree over 12 months
- I want to do Macro-Economics 201 at University X and Statistical Maths 201 at University Y and International Trade 201 online-only

# What could this mean for HE?

## ■ Distribution

- Could a distributed learning marketplace exist?

- ✓ I have something I can teach  
(institution)
- ✓ I have something I can teach  
(organisation)
- ✓ I have something I can teach  
(individual)



- ✓ I have something I  
want / need to learn



**Thank you for your time**

