



Cardiff's School of Computer Science & Informatics
CM1102 "Web Applications"

Commercial and Economic Context of Web and Web Apps

Dr Natasha Edwards

Outline

- What is Electronic Commerce (EC)?
- The factors that influence development of EC
- Identify different types and business models
 - B2C, B2B, C2C, M-commerce, e-Gov, emerging EC types and business models
- The power of the internet: use of social media
- Web and innovation

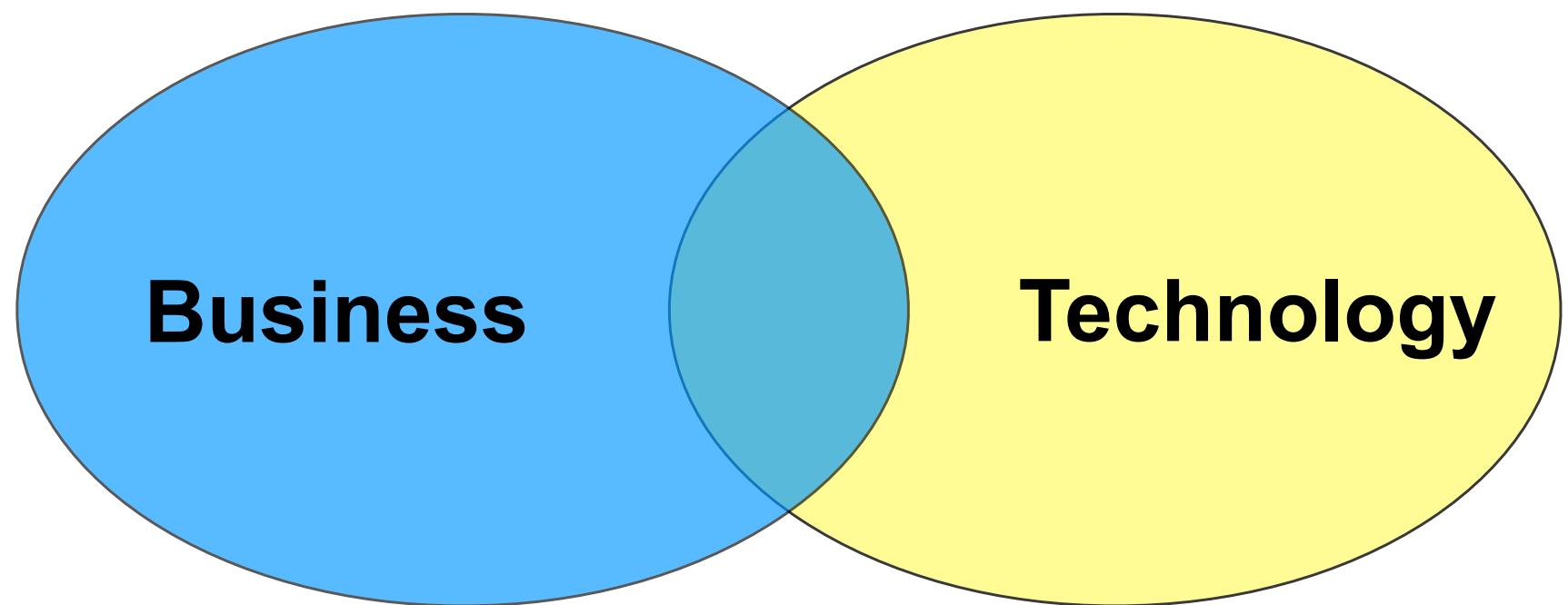
What is Electronic Commerce?

Laudon, et al. [1] define electronic commerce as:

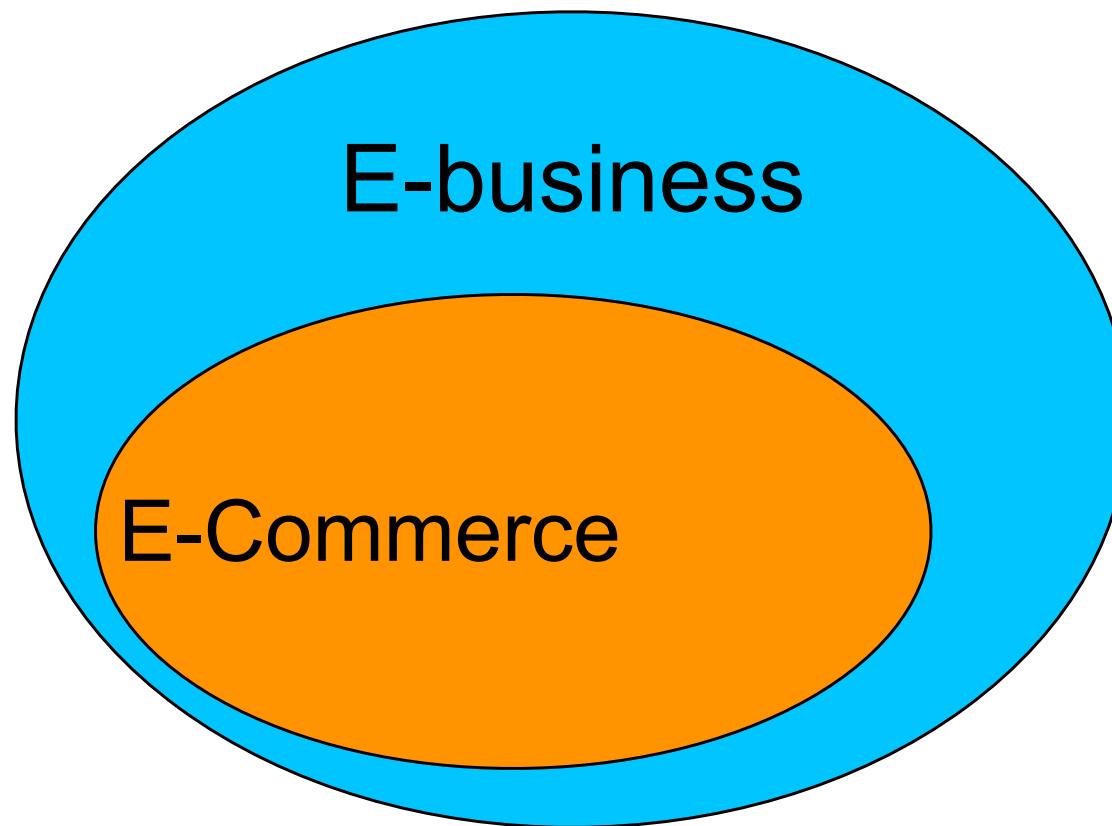
- E-commerce involves **digitally enabled commercial transactions** between and among organisations and individuals
 - **Digitally enabled transactions** include all transactions mediated by digital technology
 - **Commercial transactions** involve the exchange of value across organisational or individual boundaries in return for products or services

[1] K.C.Laudon, et al. “E-Commerce: Business. Technology. Society”, Pearson Education.

Two Sides of EC



EC and E-Business



Factors affecting development of e-commerce

» Business:

- Commercial pressures
- Diversification
- Market expansion
-

» Society

- Technology "savvy"
- Acceptance
- Even peer pressure?
-

Types of E-Commerce: EC Business Models

What is Business Model?

Business model =

method of doing business by which a company generates revenue to sustain itself

Key Ingredients of a Business Model

COMPONENTS	KEY QUESTIONS
Value proposition	Why should the customer buy from you?
Revenue model	How will you earn money?
Market opportunity	What marketspace do you intend to serve, and what is its size?
Competitive environment	Who else occupies your intended marketspace?
Competitive advantage	What special advantages does your firm bring to the marketspace?
Market strategy	How do you plan to promote your products or services to attract your target audience?
Organizational development	What types of organizational structures within the firm are necessary to carry out the business plan?
Management team	What kinds of experiences and background are important for the company's leaders to have?

Kenneth C. Laudon (2015). *E-Commerce : Business, Technology, Society*, Pearson.

E-Commerce Businesses

- **Pure-play** models: purely on Internet
- **Clicks-and-mortar** models:
extensions of bricks-and-mortar
businesses

Major Revenue Streams/ Sources

- **Sales** of products
- **Subscription** fee
- **Transaction** fee
- **Advertising**
- **Commission/ Affiliation** fee

Major Types of E-commerce

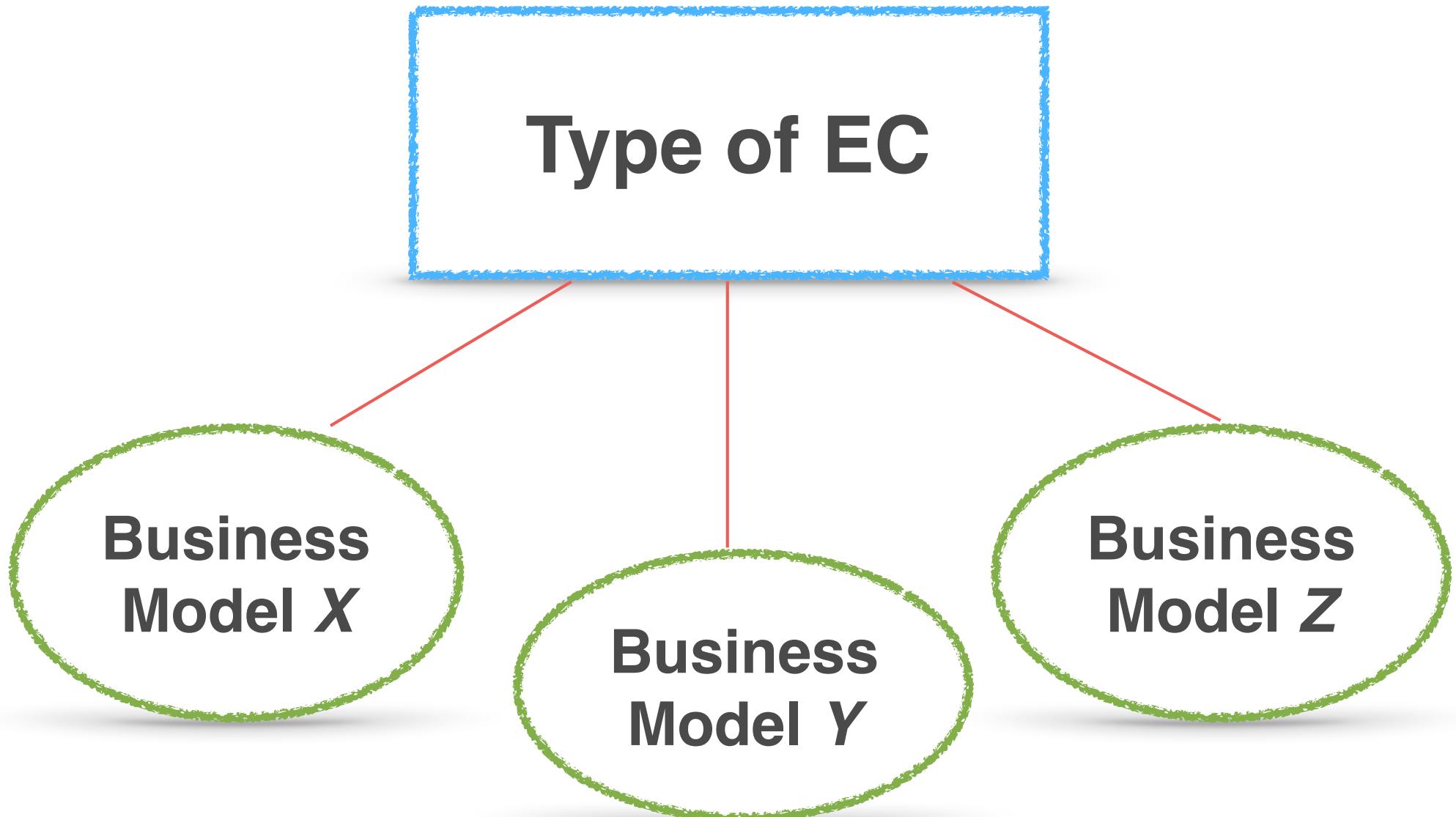
Classified by nature of market relationship:

- ◆ Business-to-Consumer (B2C)
- ◆ Business-to-Business (B2B)
- ◆ Consumer-to-Consumer (C2C)

Classified by type of technology used

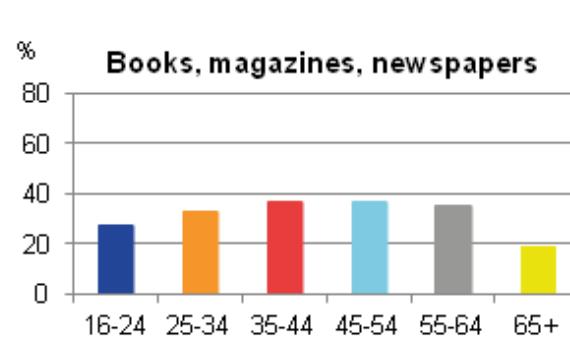
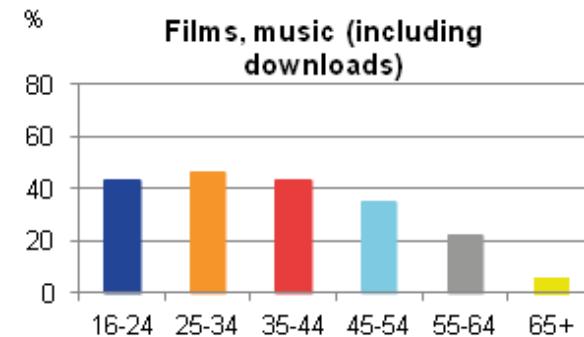
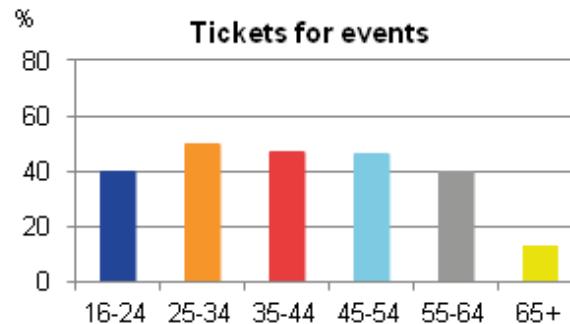
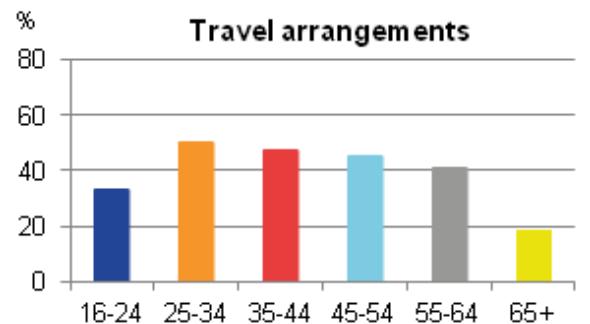
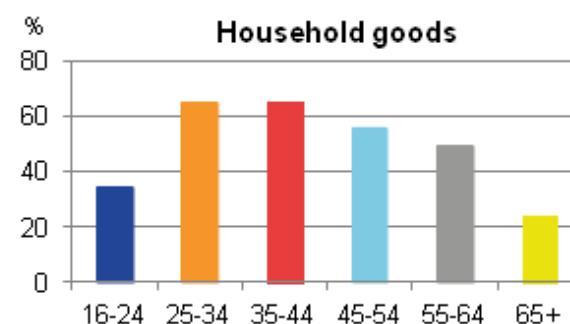
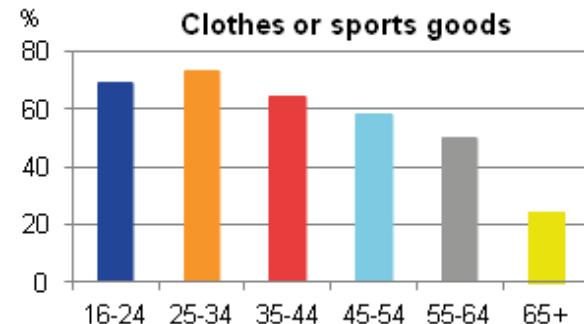
- ◆ Peer-to-Peer (P2P)
- ◆ Mobile commerce (M-commerce)

Types of EC & Business Models



B2C: Context

Online purchases by age group, 2016, Great Britain

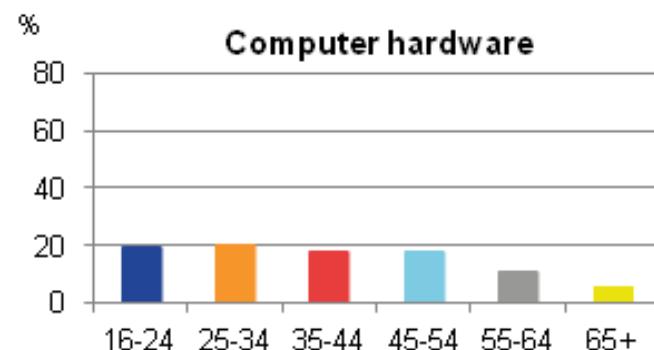
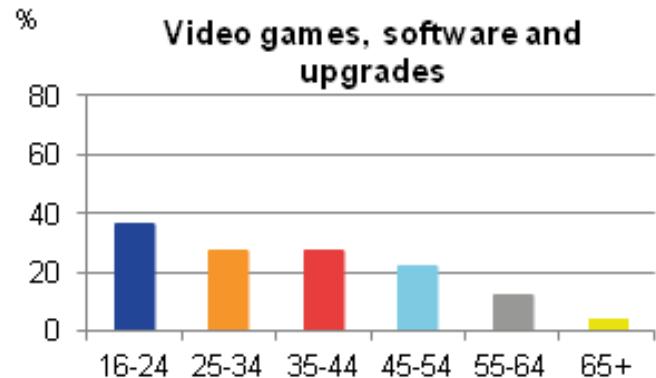
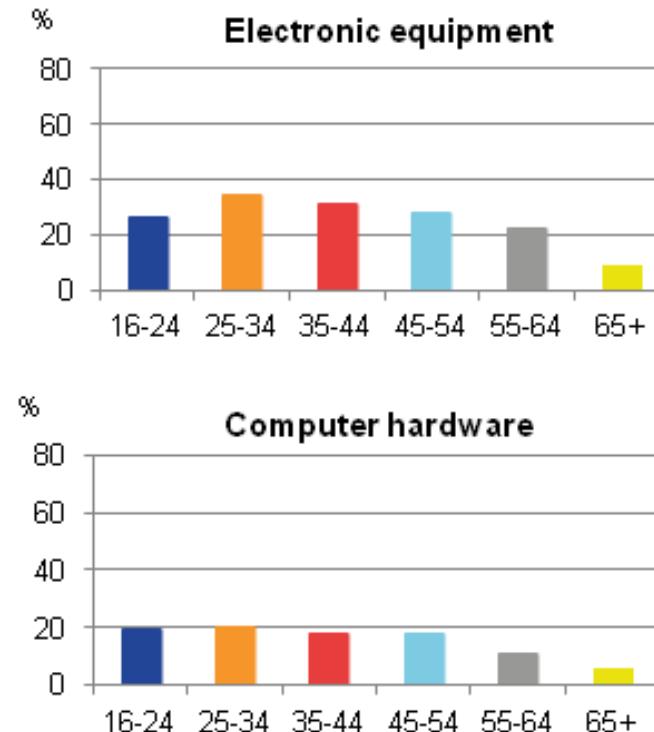
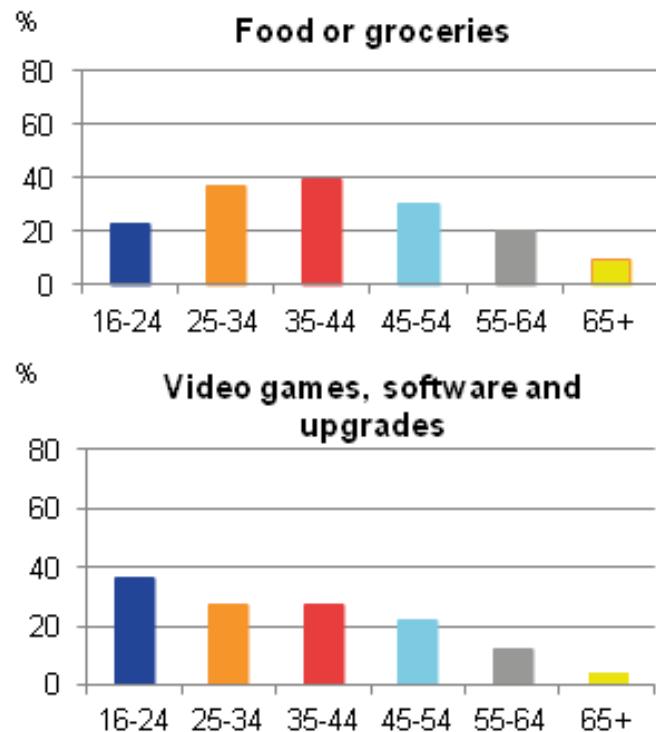


The Office for National Statistics (ONS) (2016). "Internet Access: Households and Individuals 2016"

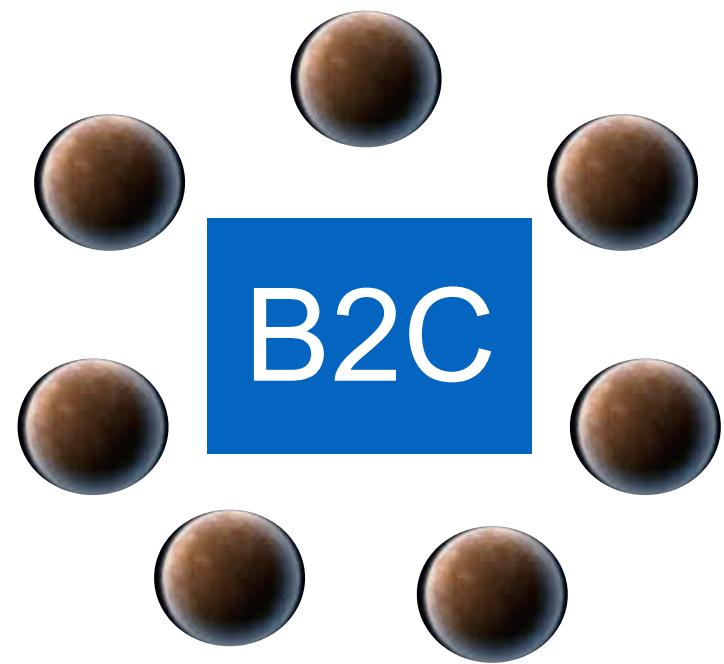
**Overall growth in
online shopping**

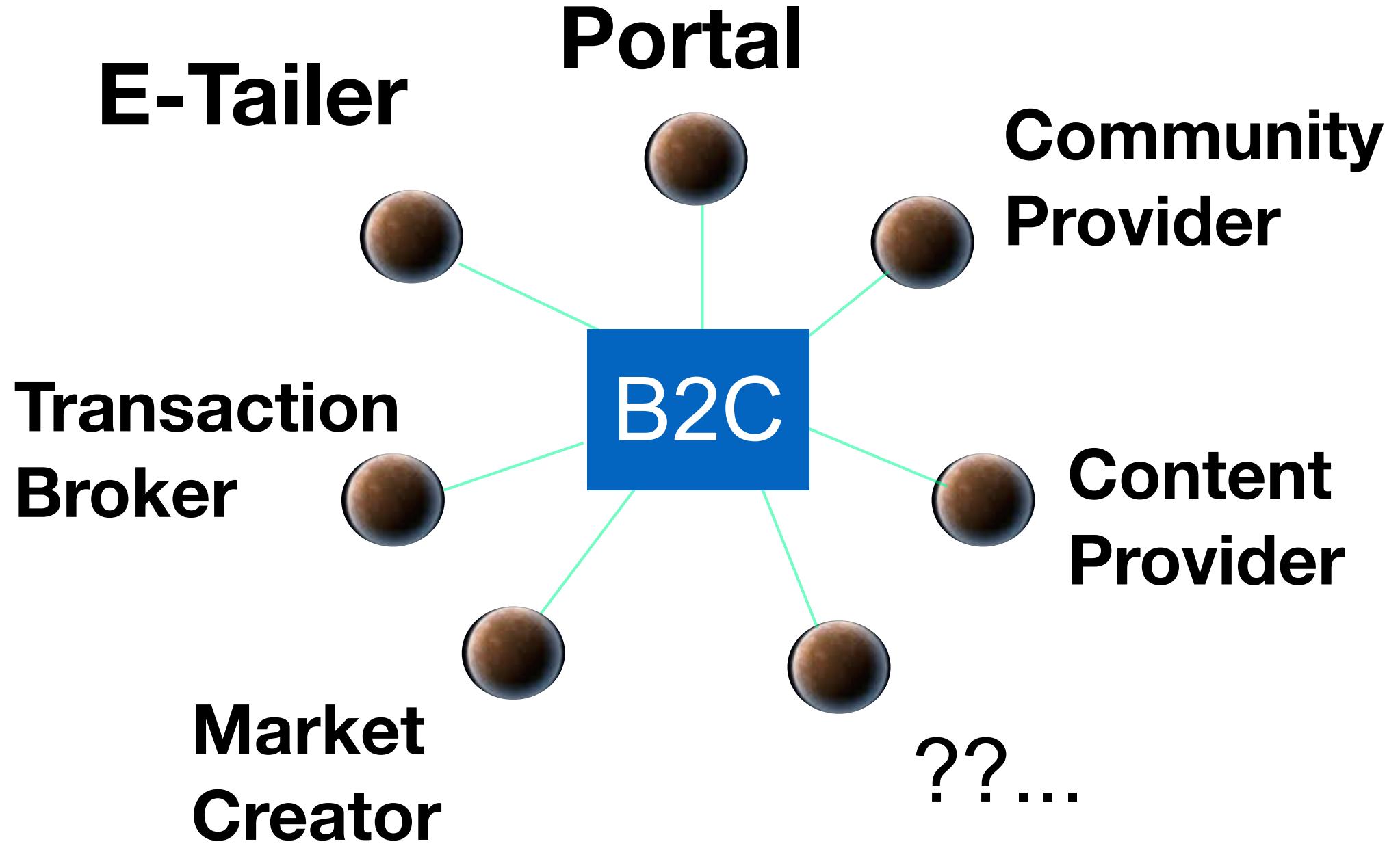
B2C: Context (/cont'd)

Online purchases by age group, 2016, Great Britain



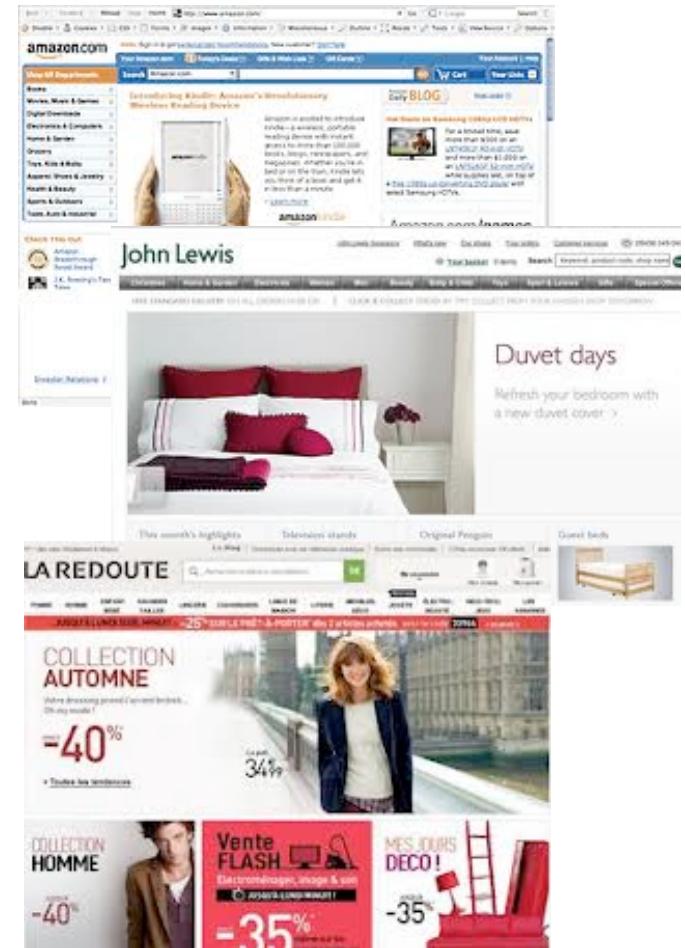
Source: ibid.





B2C Business Models: E-tailer

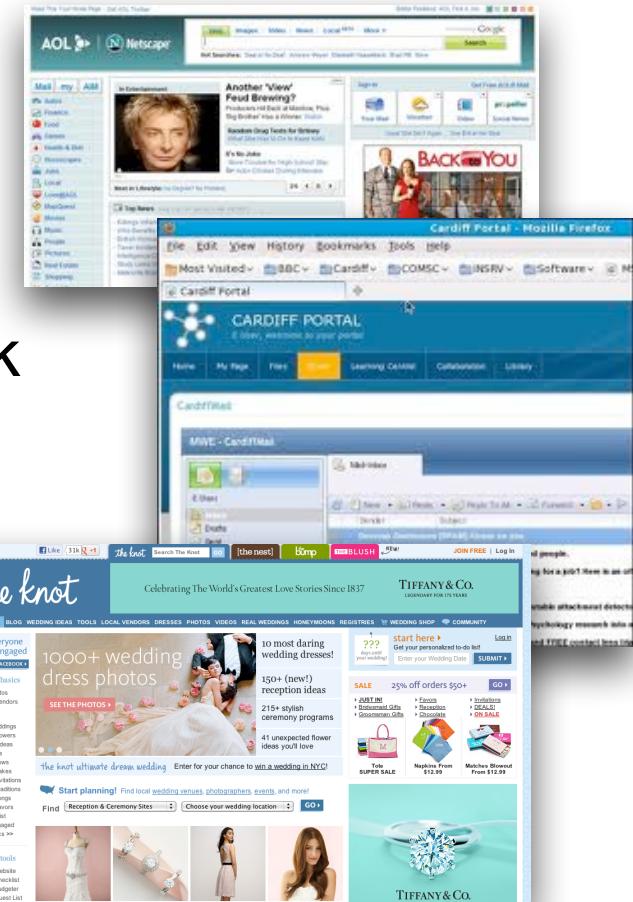
- Online version of a traditional retailer
- Types include:
 - » Virtual merchants (online retail store only)
 - » Clicks and bricks (online distribution channel for a company that also has physical stores)
 - » Catalog merchants (online version of direct mail catalog)
 - » Manufacturer-direct (manufacturer selling directly over the Web)



Main revenue source: sales

B2C Business Models: Portal

- Offers powerful search tools plus an integrated package of content and services (quite often a search engine)
 - web search facilities, news, games, stock information, chat, message board, etc.
 - yahoo, cnn, google
- May be general or specialised:
"Vortals"
(Vertical portals)
 - e.g. <http://www.theknot.com/>
 - (could these be the future for replacing the general portals?)



Main revenue source: advertising

B2C: Content Provider

- Information and entertainment companies that provide digital content over the Web
- Syndication and variation of standard content provider model
 - many examples - BBC, Channel 4, Apple, etc.
- A decade ago was the second largest source of B2C e-commerce revenue
 - but jury is still out there on how to maximise profitability



Main revenue sources: subscription, sales, advertising

Using Internet for Entertainment



NEWS

Time spent online 'overtakes TV' among youngsters

By Sean Coughlan
Education correspondent

26 January 2016 | Education & Family



Young people are spending more time playing and socialising online than watching television programmes, according to an annual survey tracking children's media behaviour in the UK.

Young people online

3 hours

amount of time 7-16-year-olds spend online each day

4.8 hours

time 15-16-year-olds spend online

2.1 hours spent watching TV each day - down from 3 hours in 2000

60% watch TV via a phone, tablet or laptop

38% do most of their TV viewing on demand

Source: Childwise Monitor report 2016

Source: <http://www.bbc.co.uk/news/education-35399658>

B2C: Transaction Broker

- Processes online transactions for consumers (often third-party)
- Primary value proposition – saving of time and money
- Industries using this model:
 - Financial services
 - Travel services
 - Job placement services
- Examples: [PayPal](#), [escrow.com](#),

Main revenue sources: fees

B2C: Market Creator

- Uses Internet technology to create markets that bring buyers and sellers together

Examples:



Main revenue sources: fees

B2C: Service Provider

- Offers services online (as opposed to physical products)
- Value proposition – valuable, convenient, time-saving, low-cost alternatives to traditional service providers
- Examples: financial products, domestic services search

Main revenue sources: advertising, fee

B2C: Community Provider

- Sites that create a digital online environment where people with similar interests can transact, communicate, and receive interest-related information



Main revenue source: advertising



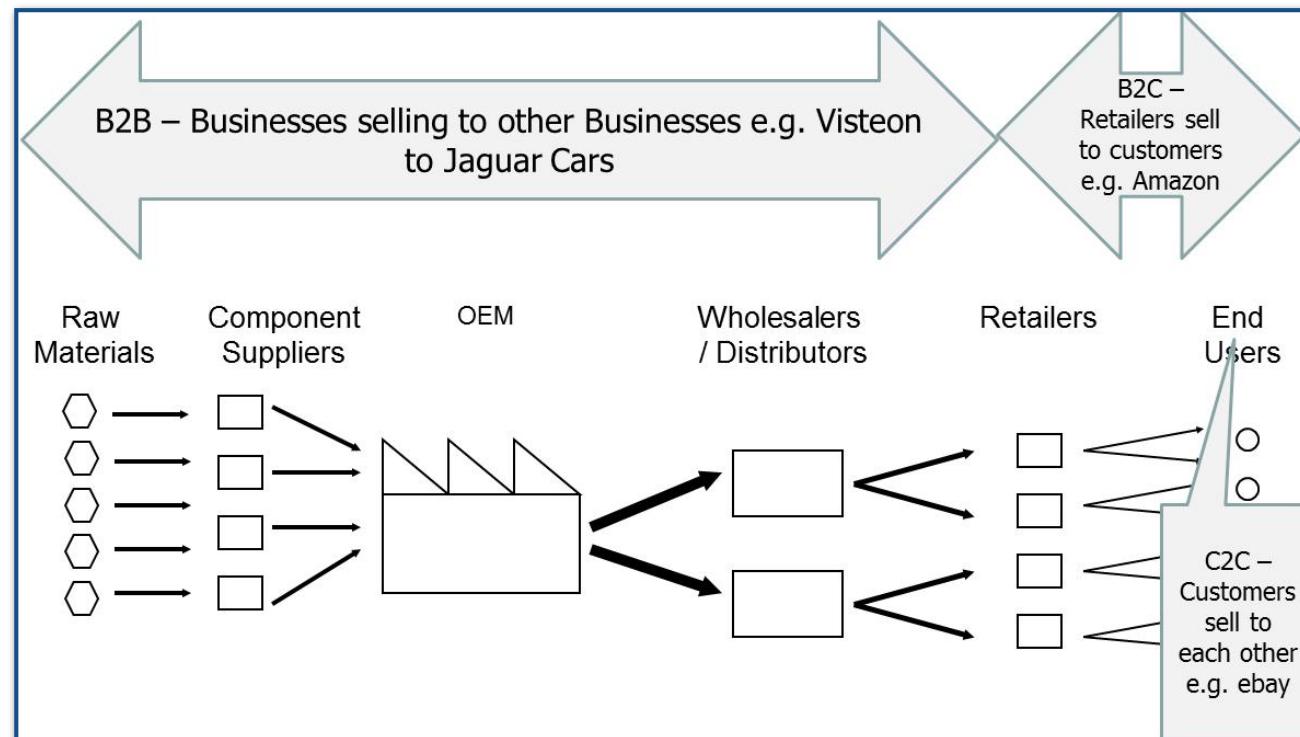
B2B



Definitions of B2B EC

“Transactions between businesses conducted electronically over the Internet, extranets, intranets, or private networks” (Turban, et al. 2012)

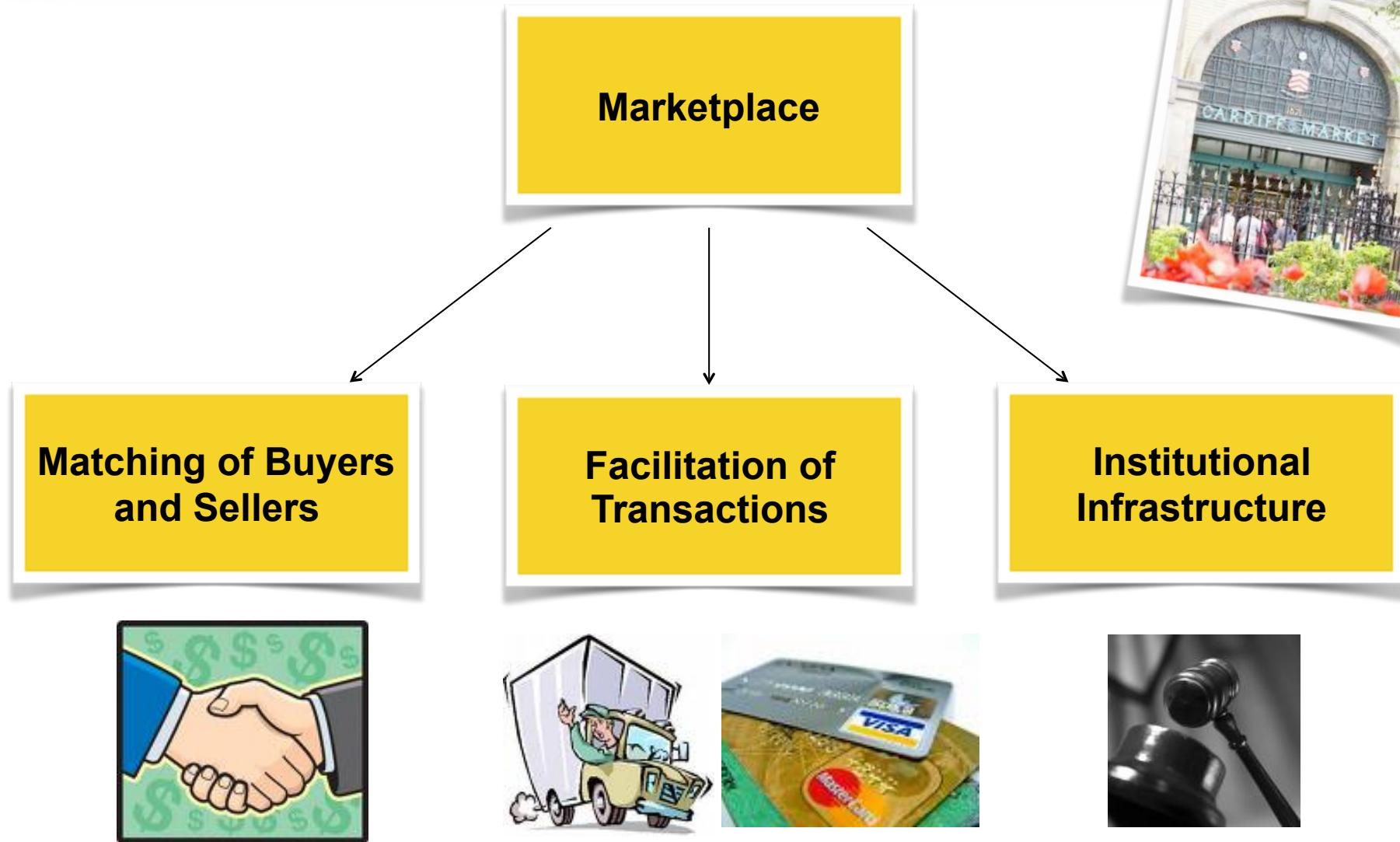
“all types of computer-enabled inter-firm trade and collaborative activities” (Laudon & Traver 2010)



B2B vs B2C

- ◆ Larger vs smaller sales volumes
- ◆ Focus on relationship vs product
- ◆ Long term vs short term relationship
- ◆ Lengthy vs short buying cycle
- ◆ Trust and relationship vs Advertising and promotion
- ◆ Rational (needs and budget) vs 'want' (emotional)

B2B Electronic Marketplaces (EMs)



EM Definitions

“An online marketplace where buyers and sellers meet exchange goods, services or information” (Turban et al 2012)

“Virtual locations with facilities to enable trading between buyers and sellers.” (Chaffey 2011)

“Brings...supplier and buyers into a single internet based environment to conduct trade” (Laudon and Traver 2013)

Many ways of categorising...here are a few:

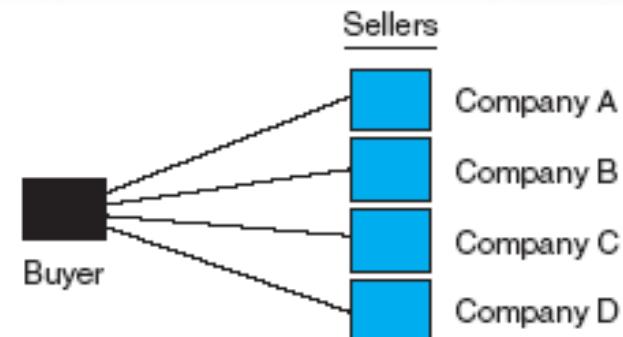
- **Vertical vs Horizontal:** specific industry vs cross industry
- **Stakeholder/ownership:** buy side / sell side / neutral / biased
- **Purchasing dimensions:** what and how business purchase
- **Process:** e.g. negotiate / settlement / sales
- **Accessibility:** open / closed

(Adapted from Grieger, 2003; Skjott-Larson et al 2003)

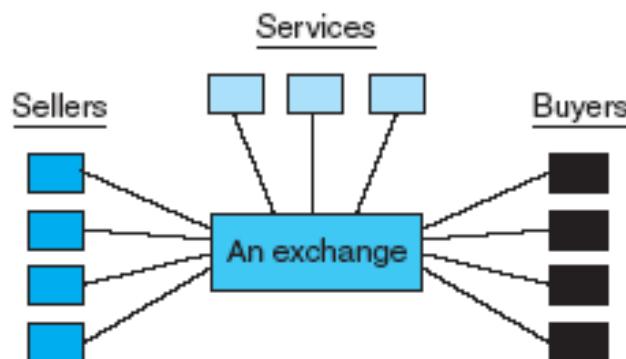
One way of classifying B2B EC



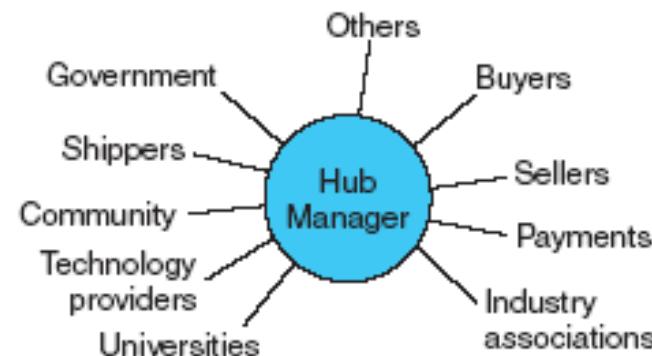
(a) Sell-Side B2B



(b) Buy-Side B2B



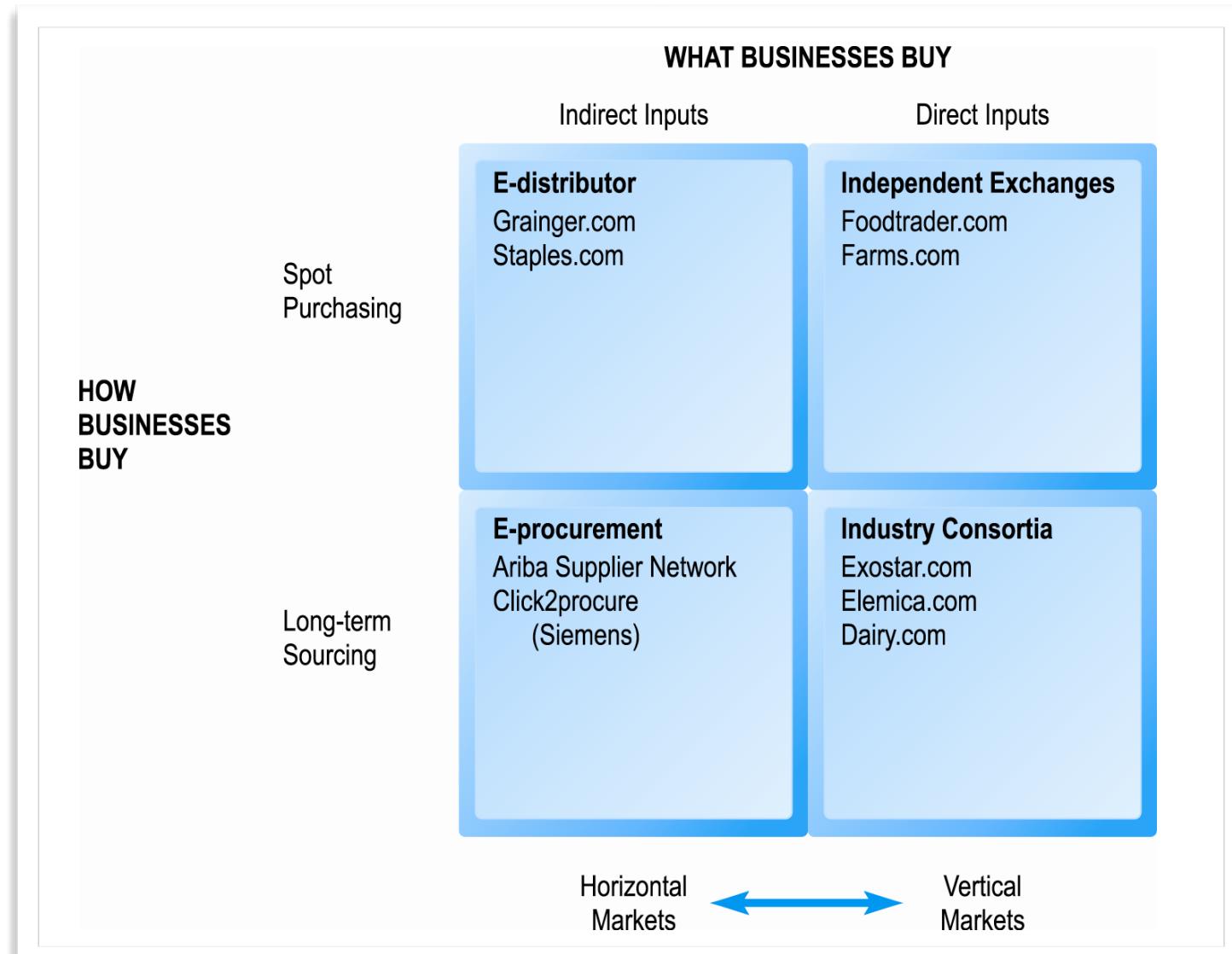
(c) Electronic Exchange



(d) Supply Chain Improvements and Collaborative Commerce

and another ...

**based on the
nature of
purchasing
processes**

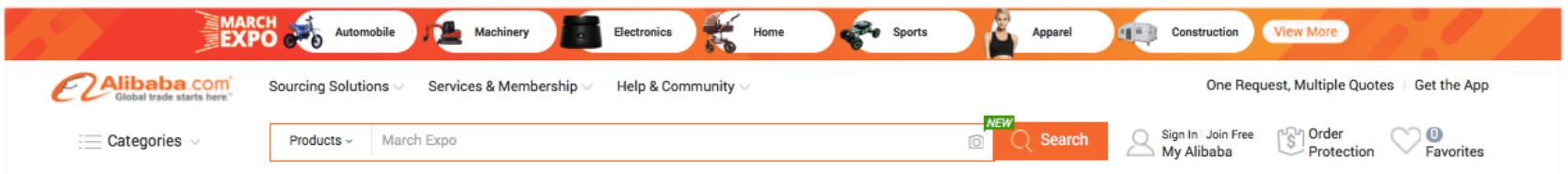


Source: Turban et al., 2008

Ownership Models for EMs

- **One company / Private marketplace**
 - Owned and operated by a single firm
- **A neutral entrepreneur / Third party marketplace**
 - Not biased to either buyer or seller
- **The consortium / Several industry players**
 - Ownership is shared between a consortium of companies, often in the same industry

Net Marketplaces: Examples



The screenshot shows the Alibaba.com homepage. At the top, there's a banner for 'MARCH EXPO' featuring icons for Automobile, Machinery, Electronics, Home, Sports, Apparel, Construction, and 'View More'. Below the banner, the Alibaba.com logo is displayed with the tagline 'Global trade starts here'. The navigation menu includes 'Sourcing Solutions', 'Services & Membership', and 'Help & Community'. A search bar at the top right contains the text 'March Expo'. To the right of the search bar are links for 'Sign In / Join Free', 'My Alibaba', 'Order Protection', and 'Favorites'. A large video player in the center of the page shows a video about Amazon Business with the text 'Everything you love about Amazon. For business.' and a 'Create a free account' button.

amazonbusiness

OVERVIEW FEATURES CREATE A FREE ACCOUNT FAQs

Everything you love about Amazon. For business.

Create a free account

Need help registering? See registration FAQs

Manage your VAT invoices

- Bulk download VAT invoices
- View and compare VAT exclusive prices

Purchase now, Pay in 30 days

- Payment on net 30 day terms with Pay by Invoice
- Improve cash flows and simplify reconciliation
- Shared payment methods

Visibility & Control

- Add multiple users and create groups
- Set spending limits & approval workflows
- Setup Catalogue Curation

Competitive pricing

Free One-Day Delivery

Amazon for enterprises

Buy & Sell New, Used, Refurbished Computer, IT & Telecom Parts & Equipment Online - powersource - Windows Internet Explorer pro

http://www.powersourceonline.com/ power source online

Favorites Web Slice Gallery Customize Links Windows Marketplace

Buy & Sell New, Used Computer, IT ... Page Safety Tools ?

PowerSource Online Global Marketplace for IT & Telecom Buyers & Sellers
New, Used, Refurbished, Hard to Find Parts, Equipment & Services

Home Buy IT Sell IT Industry Services Magazine Auction REQUEST A TRIAL Login



Products | Industry Services

Search for Parts & Equipment

Global Marketplace for Computer & Telecom Buyers & Sellers of New, Used, Refurbished, Hard to Find Parts & Equipment

Benefits How It Works Latest Broadcast Recent Searches

See how Powersource Online can **benefit you** when it comes to sourcing and selling new, used or refurbished IT & Telecom parts & equipment.

1. Channel Members
Gain new customers and save time sourcing Parts & Equipment
Dealers, Resellers, Brokers, VARs, Interconnects, Service Companies

Gain exposure to over 1,000,000 searches for computers, laptops, printers, VoIP, PBX/Key and other Telecom & IT parts per month

2. Corporate Buyers/Self Maintainers
Save time locating quality IT parts and telecom equipment from 100s of suppliers
Enterprise Companies, Self Maintainers, Fortune 500's, ILECs, CLECs, Government Agencies

Search our database of over 3 million lines of inventory from 100s of suppliers
Find out of warranty & hard to find parts

Done Internet | Protected Mode: On 100% 14:49 03/02/2014



Another example: Haulageexchange.co.uk

Haulage Exchange - Loads, tenders & returnloads for Owner Operators and Haulage Companies - Mozilla Firefox

Blackboard Learn

Hotmail - wang_yingli@hotmail.com

Elemica - Did you spell it correctly. Altern...

Delivery Work Available Loads for UK and...

www.haulageexchange.co.uk/default.html

Most Visited knowledge centre carbs travel etc emails dictionary e-enabled multimodal floating market

www.haulageexchange.co.uk/available-loads.html

Most Visited knowledge centre carbs travel etc emails dictionary e-enabled multimodal floating market

SEARCH GO

Haulage Exchange

Home Available Loads Empty Vehicles Case Studies Transport Services Register

SEARCH:

JOIN NOW Over...
2,500 members
10,000 vehicles
300,000 loads
Click Here

Call Now:
0844 225 8920

UK's #1 Trade Website for the Haulage Work Industry

WE LOVE HAULAGE

Full Loads Backloads Freight Loads Freight Forwarding

Road HaulageWork Groupage Haulage Contracts Freight Tenders

2,500 members 10,000 vehicles 300,000 loads

Click Here

Case Studies

browns X2 PRO TRANSPORT ALLEN CHILLER VZI KEEF FORWARDING View Now

The Haulage Exchange is the UK's premier freight exchange, providing haulage companies and logistics businesses with the most comprehensive range of features in the market place. We can benefit your business with returnloads, road haulage work, haulage contracts, groupage, freight tenders and other areas within the freight industry.

Our mission is to make your business more profitable and bring improved efficiency to your day-to-day dealings with other transport organisations.

If you would like a no obligation demonstration of how Haulage Exchange could benefit your business in areas such as returnloads, freight tenders, back loads and road haulage work, please 0844 225 8920 or click here to register your details.

How Does the Freight Exchange Work?

- Members who have work that they wish to subcontract post their loads or returnloads on the site.
- These loads are then displayed on the site for all the other members to see. The loads also go out as notifications to members based in the local area of collection or who have vehicles clearing in the local area of collection.
- If a member is interested in a load or returnload they will contact the member who has posted the load directly.
- Payment terms and rate are agreed between both parties.
- The job is carried out, paperwork completed, job invoiced and payment made directly between the parties concerned.
- All the money on the job goes to the member carrying out the load or returnload. No commission is taken by the Haulage Exchange.

Get A Quote

Empty Vehicles

3,000 Registered users 16,000 Available vehicles Interactive Map

View Now

Affordable Truck Insurance Made Easy

> Single Vehicles > Multi Vehicles > Fleets welcome > Artics > Tippers > Tankers > All vehicles

Get A Quote

Available Loads

UK Available Loads for Delivery Work

View live available loads on the Haulage Exchange

Available loads for delivery work are placed on the exchange in real-time. On an average working day that's over 10,000 vehicles per month plus thousands more delivery work traded amongst our members directly.

As a member of the exchange you will benefit not just from picking up extra delivery work but also by making invaluable industry contacts from the network of thousands of hauliers and logistics firms!

Haulage Exchange prides itself on being the first choice for hauliers as the UK's leading freight exchange. Let us help you to:

- Grow your business with more delivery work but no extra overheads
- Tackle dead mileage
- Win and support larger delivery work contracts

Accept and Trade your Delivery Work Available Loads NOW!

Your search has returned: 309 Results Page 1 of 31 Next >

From: St Neots, Cambridgeshire, PE19 1 - PE19 8 **To:** Southbourne, West Sussex, PO10 8 **Posted at:** 13/02/2012 15:07 **ID:** 3855262

Collect: Feb 13 2012 15:03 **Deliver:** Feb 14 2012 09:00 **7.5T** 5 PALLETS 1.6 X 1.2 **Hotshot**

Click here to view details

From: Leeds, West Yorkshire, LS1 1 - LS99 2 **To:** Ashby-de-la-Zouch, Leicestershire, LE65 1 - LE65 2 **Posted at:** 13/02/2012 15:07 **ID:** 3855264

Collect: Feb 14 2012 06:00 **Deliver:** Feb 14 2012 14:30 **7.5T** **Hotshot**

Click here to view details

From: Erdington, West Midlands, B23 5 - B24 9 **To:** Oxford, Oxfordshire, OX1 1 - OX44 9 **Posted at:** 13/02/2012 15:04 **ID:** 3855264

Collect: Feb 13 2012 15:03 **Deliver:** Feb 13 2012 18:30 **7.5TT/L** **Hotshot**

Click here to view details

From: Redditch, Hereford & Worcs, B96 6 - B96 9 **To:** ... **Posted at:** 13/02/2012 15:02 **ID:** 3855264

Click here to view details

Start 答复: 11/12-BST123 ELE... Haulage Exchange - L... Turban 2011_Introduction... 20112012 week 5 B2B E... laudon_ec6e_ch12.ppt [...] laudon_ec6e_ch12.ppt [...] laudon_ec2010_piv_i

Delivery Work Available Loads

Turban 2011_Introduction... 20112012 week 5 B2B E... laudon_ec6e_ch12.ppt [...] laudon_ec6e_ch12.ppt [...] laudon_ec2010_piv_i

Cloud

- Delivery of computing as a service, not product

IaaS
PaaS
SaaS
...aa



Windows Azure®

vmware®



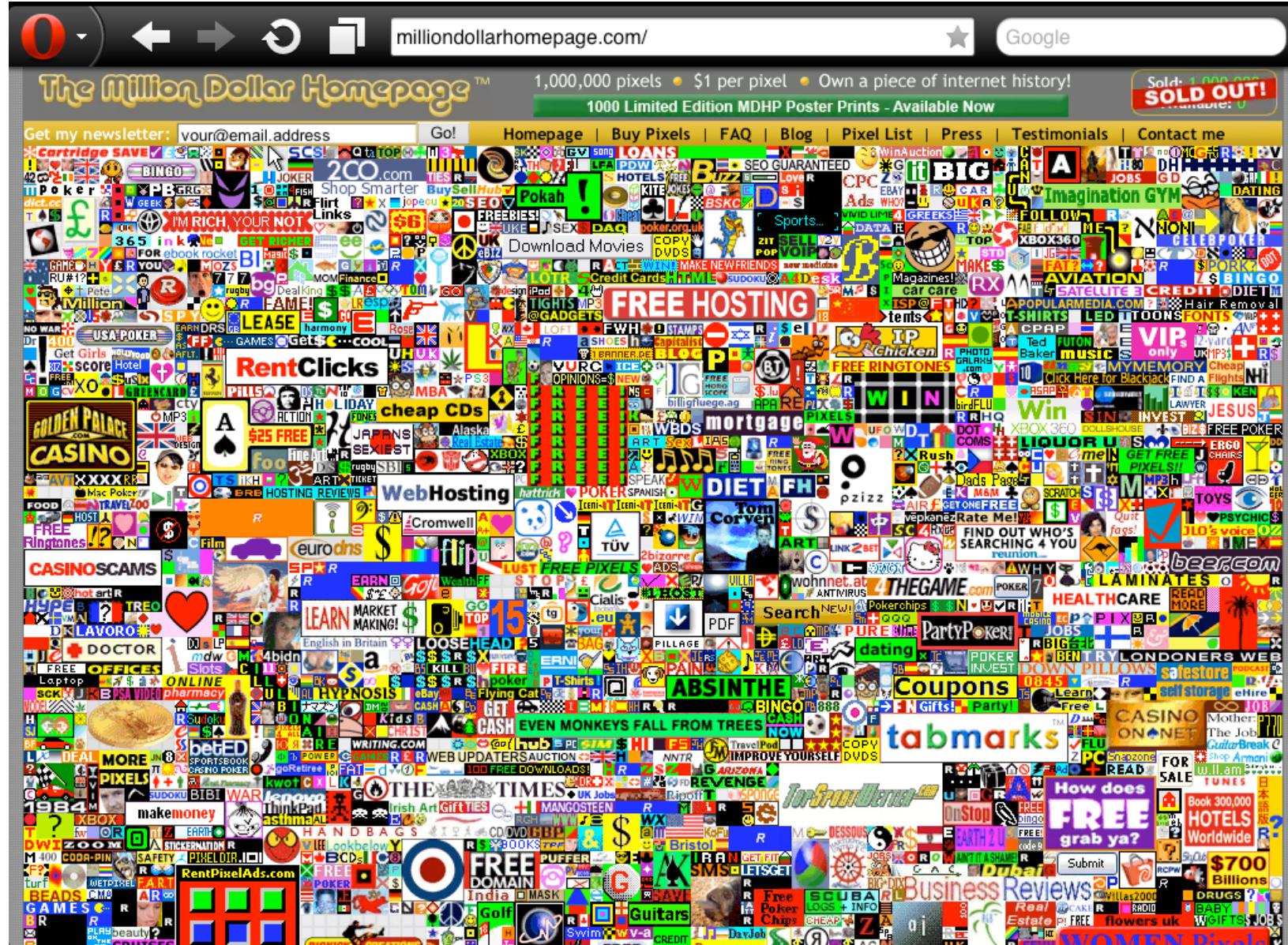
rackspace®



salesforce



New Business Models: Advertisements as Commodities: Example



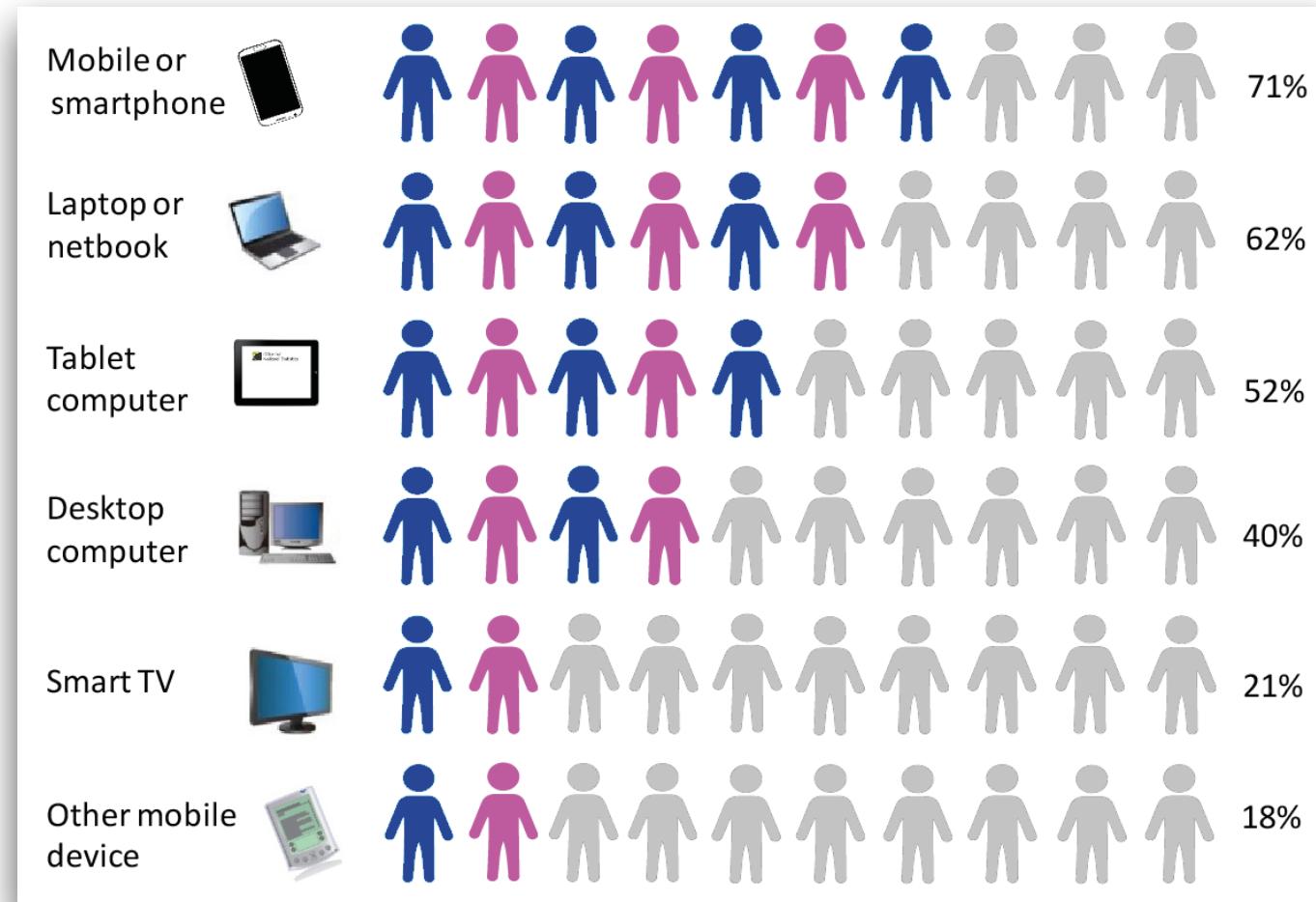
M-Commerce, C2C, P2P and
other emerging types of EC

M-Commerce

- “Traditional” e-commerce but via new means - wireless technologies
 - 3G; Wi-Fi; and Bluetooth
- All major mobile phone companies involved + ‘traditional’ browsers
- A lot of efforts and a lot of growth

Watch This Space...

Devices used to access the internet



3 out of 4 adults access the internet ‘on the go’

Consumer-to-Consumer (C2C)

- Consumers sell products and services to each other, i.e. take the business out of the supply chain
- Small businesses participate as well
- Some argue that C2C has not reached its full potential yet, due to the impersonal/ anonymous nature of communication
- Best example: eBay.com

Peer-to-Peer (P2P)

- File and resource sharing between users.
- No common server is necessary - hence very low costs.
- However, hard to develop business models and generate profits - normally “enthusiasm”-based
- Examples: P2P sharing (Gnutella, G2, eDonkey); multimedia (Skype, Spotify, MIT and some other universities); other applications (Bitcoin)

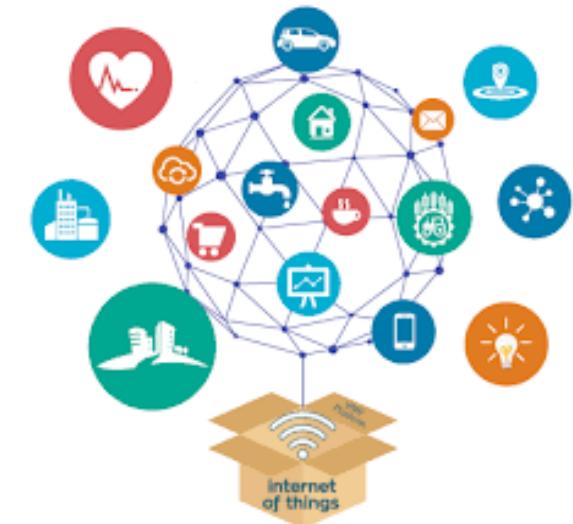
E-Government: G2C

- Public/ Government documents, acts
- Local e-government
- Communication with government
 - e.g. queries, opinion polls
- Pay taxes, renew road tax, etc.
- Electronic voting



Emerging Types: B2M and M2M

- Business-to-Machines (B2M) is an emerging area
 - companies connect to remote machines via Internet, e.g. for inventory/ stocking/ re-stocking purposes
- The idea is to link to remote machines over the internet
- Improves automation, which can maximise profits and increase business efficiency (e.g. by saving costs)
- "Internet of Things"



Emerging Types: B2E

- B2E (Business to Employee)
 - the idea of a “*virtual organisation*”
 - payslips, annual leave management
 - could also be used to access and update your own personal data (e.g. address, CV, etc.)
 - requisition of supplies necessary for your job
 - strictly speaking NOT eCommerce (however, involves *digital transactions*)

Web and Innovation

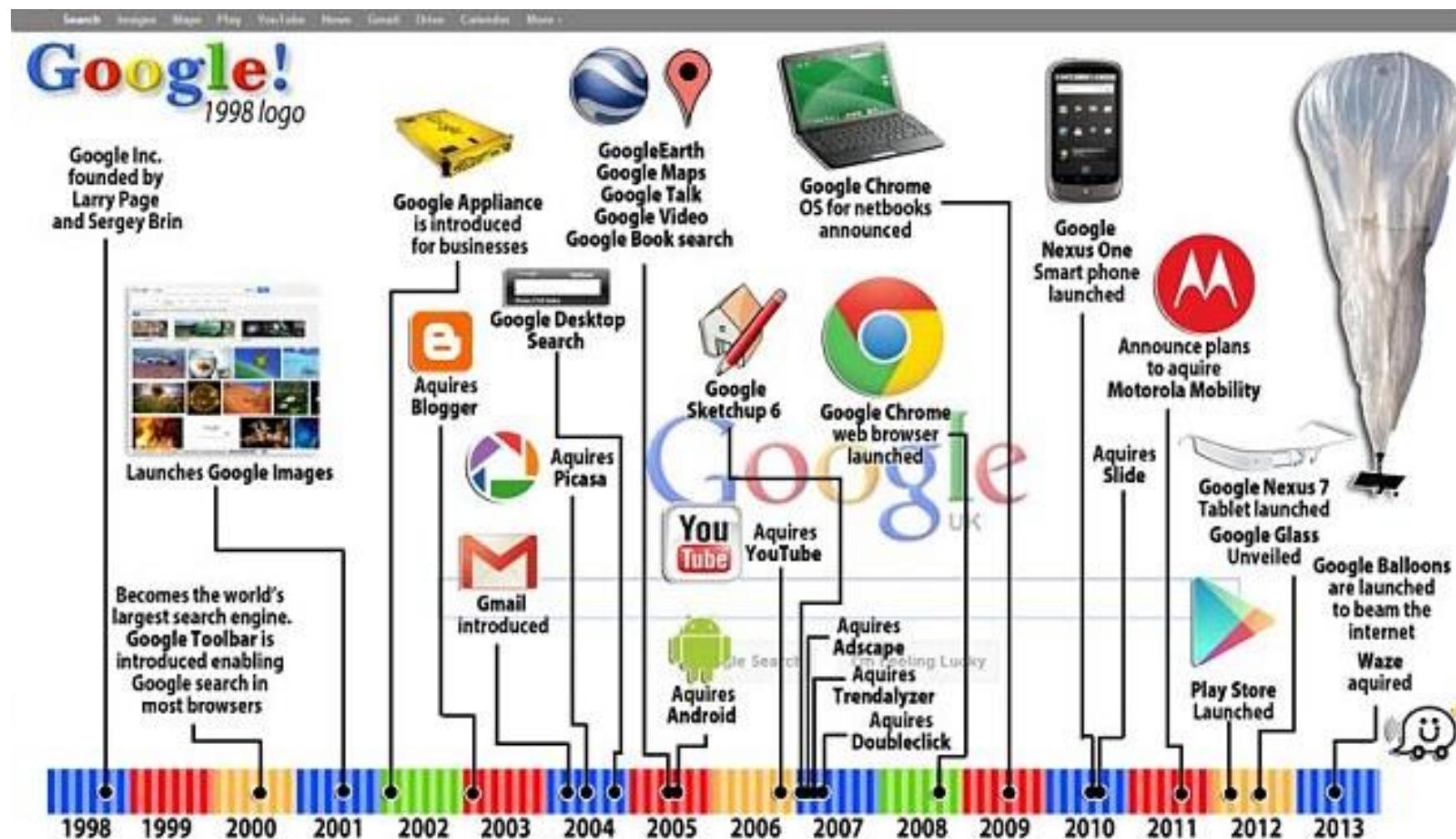
Disruptive technologies

- Organisations have been using the Internet, WWW and wireless communication to transform their businesses for over 20 years.
- These disruptive digital technologies offer opportunities for businesses to transform their services.
- Disruptive technologies are new technologies that prompt businesses to reappraise their strategic approaches.

Innovation

- Innovation is a given with the continuous introduction of technologies, new business models and new communication approaches.
- Examples of innovative businesses made possible by the web:
 - Amazon (retailer).
 - eBay (online auction).
 - Hotmail (web-based e-mail).
 - Facebook (social network applications and groups).
 - Wikipedia (open encyclopaedia).

Google innovates relentlessly



Google innovation timeline
(Source: <http://www.dailymail.co.uk/>)

The power of Internet



VS



The power of Internet

Case Study



Source: <https://www.pgeveryday.com/tag/old-spice>



Home · Search · Help

Create Account · Sign In

Old Spice | The Man Your Man Could Smell Like

oldspice 8.1 · 1,000,000 · 2 comments



1,000,000 views · 1 year ago

ADDITIONAL:
Write out something you think would smell good about your other interests or hobbies.

AS SHOWN IN: [comment 1](#)

AS SHOWN IN: [comment 2](#)

5823700

views

comments



Old Spice | Ad 2
1,000,000 views · 1 year ago



Old Spice | Ad 3
1,000,000 views · 1 year ago



Old Spice | Ad 4
1,000,000 views · 1 year ago



Old Spice | Ad 5
1,000,000 views · 1 year ago



Old Spice
1,000,000 views · 1 year ago



Old Spice | Ad 7
1,000,000 views · 1 year ago



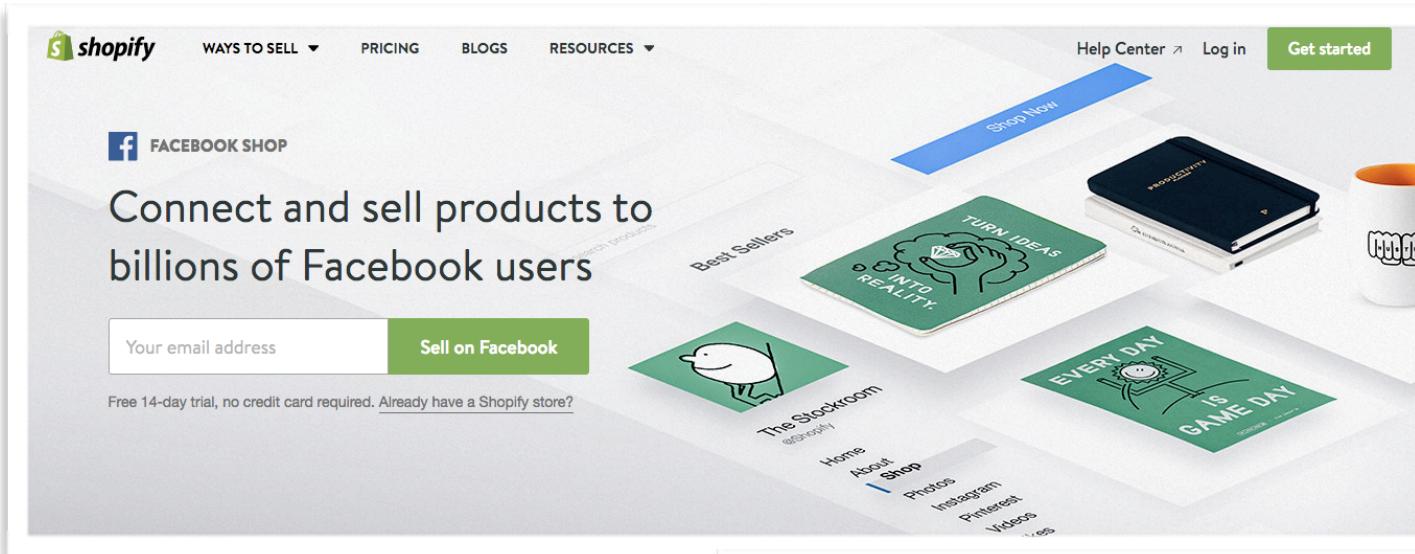
Old Spice | Ad 8
1,000,000 views · 1 year ago



Old Spice | Ad 9
1,000,000 views · 1 year ago

EC and Social Media

'F-Commerce'



The screenshot shows the Shopify Facebook Shop landing page. It features a prominent 'Shop Now' button and several products displayed, including notebooks and a mug. A sidebar on the left contains a 'Facebook Shop' section with a 'Sell on Facebook' button and a 'Your email address' input field. The main headline reads: 'Connect and sell products to billions of Facebook users'. Navigation links like 'WAYS TO SELL', 'PRICING', 'BLOGS', 'RESOURCES', 'Help Center', 'Log in', and 'Get started' are visible at the top.

PURE CYCLES [BIKES](#) [ACCESSORIES](#) [APPAREL](#) [GLOW](#) [SALE](#) [NEW](#) [BLOG](#)

CART

ITEMS	PRICE	QTY
 UNIFORM - 58 CM Pure Fix Cycles	\$399.00	1

Get order and shipping updates in  Messenger
You can also chat with us directly for help.

 Arati Sharma Not you?

ORDER TOTAL - \$399.00
STARTING AT \$69 A MONTH.

CHECKOUT

Connect with your customers instantly

Personalize the shopping experience with Messenger chat support on your online store and Facebook page. Customers can buy your products directly in a chat, and track their orders in real time.

F-Commerce

The screenshot shows the Facebook Business Help Center interface. At the top, there's a blue header bar with the "facebook business" logo, a search bar, and links for "Search", "Resources", and "Support". Below the header, there are navigation tabs for "Marketing on Facebook", "Inspiration", and "News", along with "Create an Ad" and "Create a Page" buttons. A sidebar on the left lists categories like "Advertising Basics", "Creating Ads", "Managing Ads", etc. The main content area features a large heading "How do I add a shop section to my Page?". It includes a note about the feature being rolled out, links for US and non-US users, and tips for troubleshooting and saving progress.

facebook business

Marketing on Facebook Inspiration News

Create an Ad Create a Page

Advertiser Help Center Hi Tasha, how can we help?

Adverts Help - Desktop English (UK)

Advertising Basics >

Creating Ads >

Managing Ads >

Direct Response & Brand Advertising >

Ad Performance & Reporting >

Billing & Payments >

Troubleshooting Your Ads >

Guides for Advertisers >

Additional Resources for Advertisers >

How do I add a shop section to my Page?

This feature is still rolling out and may not be available to you at this time. The shop section experience is also different depending on where in the world your Page is.

» How to add the shop section if you're in the US

» How to add the shop section if you're outside the US

Important: People will only see your shop after you have added at least one product and your product has been reviewed and approved.

Tip: If you need to take a break while creating your shop, we'll save your progress for you. When you return to your Page, you'll see a **Finish Setup** button you can click to start again from your most recent step.

<https://www.facebook.com/business/help/912190892201033>

And now 'Insta-commerce'?

The New York Times

Instagram Wants to Be Your Mall

Shopping has long represented a major opportunity for the platform. A new feature, introduced with Nike, Burberry, Zara and more, will grease the wheels by letting you buy without leaving the app.

By Matthew Schneier

March 19, 2019

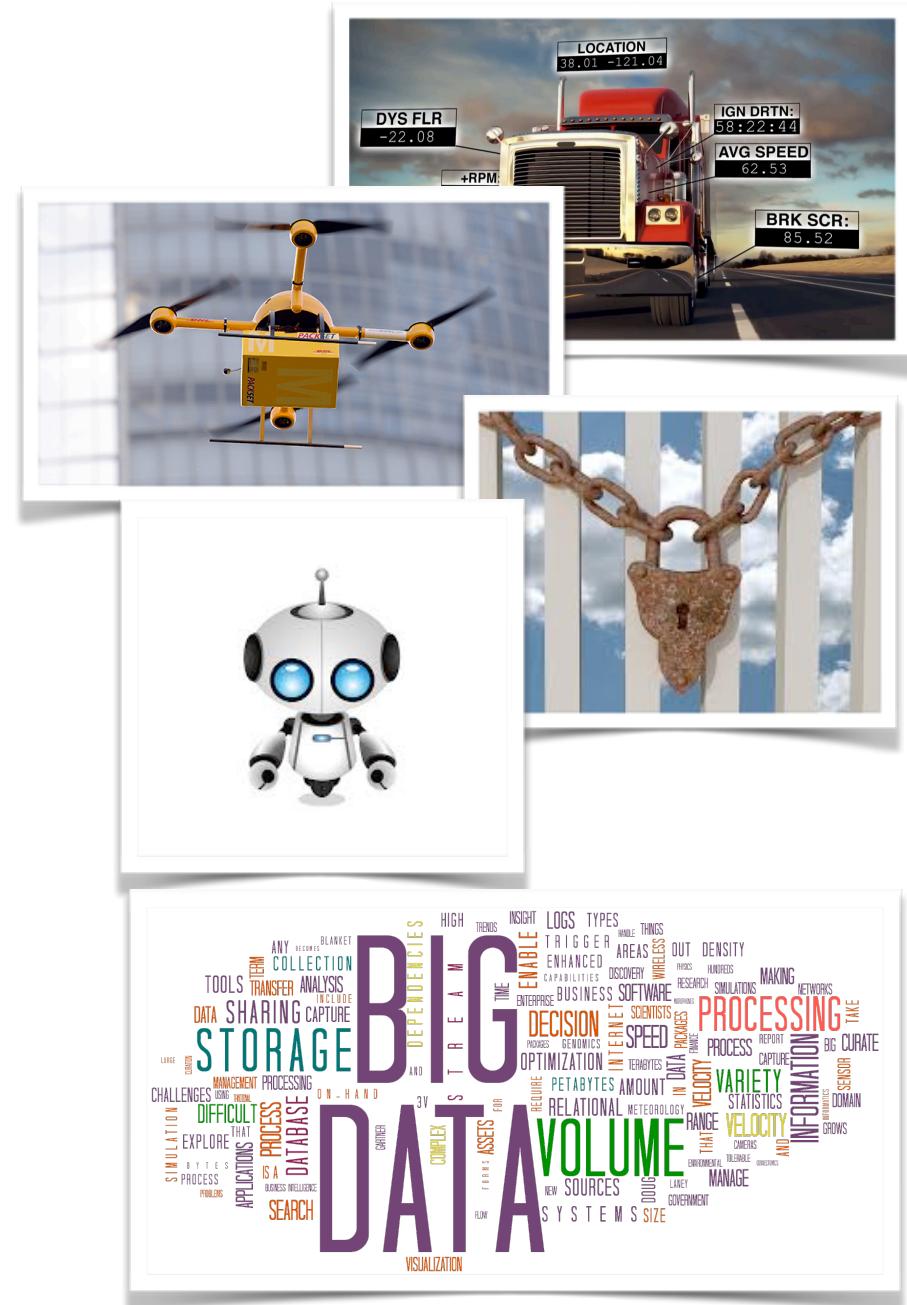
Zara is among the brands that will be shoppable in-app on Instagram.

Instagram has introduced a tool designed to shore up its hold on shopping. The company announced today that it will be rolling out an in-app checkout function to users in the United States, a secure and, Instagram hopes, friction-free method for purchasing products on the

<https://www.nytimes.com/2019/03/19/style/instagram-wants-to-be-your-mall.html>

Future of Web

- Artificial intelligence (AI)
 - Internet of Things (IoT)
 - 3D printing
 - Robotics and automation
 - Enhanced security
 - Advanced inventory management; Self-orchestrated supply chain
 - Drone delivery
 - Driveless vehicles
 - Urber transportation
 - Use of BIG data



Artificial Intelligence

Entrepreneur TOP 50 HOW TO MAGAZINE FRANCHISE 500 EVENTS SUBSCRIBE  

MAKE MORE HAPPEN 

5 Ways Artificial Intelligence Is Shaping the Future of Ecommerce

Paradoxically for a machine, AI's greatest strength may be in creating a more personal experience for your customer. From product personalization to virtual personal shoppers.

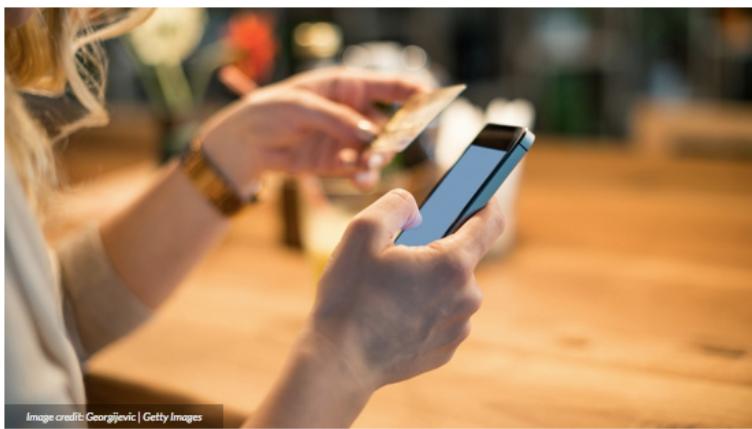


Image credit: Georgijevic | Getty Images

1.1k Shares      

NOVEMBER 8, 2016

Few industries are as competitive as ecommerce. Not only are online retailers competing with other online stores and brick-and-mortar locations, but also the overall noise that is the Internet. We live in a

SHEILA EUGENIO
CONTRIBUTOR
Entrepreneur

- Visual search
- Merge of offline to online worlds
- Personalisation
- Virtual personal shopper
- People's interest in AI

Read more at: <https://www.entrepreneur.com/article/284637>

Artificial Intelligence

The image displays two screenshots illustrating Artificial Intelligence in consumer products. On the left, an Amazon Echo device is shown next to a screenshot of the Netflix website's movie recommendation section. The Netflix interface shows a 'Movies You'll Love' section with a 5-star rating bar and a 'New Suggestions for You' section with movie thumbnails like 'Jane Eyre' and 'Cinema Paradiso'. On the right, a HomePod device is shown next to its product page on the Apple website, which features a large image of the device and the text 'Welcome HomePod.'

INTRODUCING
amazon echo
Always ready, connected, and fast. Just ask.

NETFLIX

Browse DVDs | Browse Instant | Your Queue | Movies You'll Love | Friends & Community | DVD Sale

Suggestions (2031) | Suggestions by Genre | Rate Movies | Rate Genres | Movies You've Rated (300)

Movies You'll Love

Suggestions based on your ratings

To Get the Best Suggestions

1. Rate your genres. 2. Rate the movies you've seen.

Jane Eyre (2-Disc Series)
Because you enjoyed:
[Children of Heaven](#)

Cinema Paradiso
Because you enjoyed:
[Amadeus](#)
[Children of Heaven](#)
[Amélie](#)

BLEAK HOUSE (3-Disc Series)
Because you enjoyed:
[Children of Heaven](#)

DOCUMENTARY SUGGESTIONS (314) [See all 314 >](#)

The Last Waltz
Because you enjoyed:
[A Long, Long Way](#)
[The Thin Red Line](#)

Paper Clips
Because you enjoyed:
[A Long, Long Way](#)
[The Thin Red Line](#)

THE WILD PARROTS OF TELEGRAPH HILL
Because you enjoyed:
[The Wild Parrots of Telegraph Hill](#)

Enron: The Smartest Guys in the Room
Because you enjoyed:
[The Wild Parrots of Telegraph Hill](#)

HomePod

Mac iPad iPhone Watch TV Music Support

Welcome HomePod.

Image source: <http://www.solarsquirrel.com/MIDS/Recommendations.jpg>

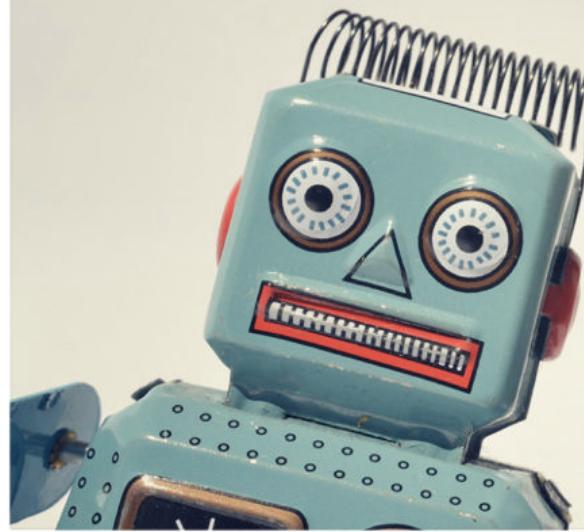
Artificial Intelligence

Interactivity

- simulation of face-to-face experience, but on global scale
 - ▶ **better, up-to-date, immediate communication with customer (e.g. online chat functionality)**

From E-Commerce to Conversational Commerce: Chatbots and Virtual Assistants

by ANGELA SOKOLOVSKA in AUGUST 16, 2016



I need new sneakers

Hi Mia, happy to help you with that.
Are you just starting out, run regularly or are
you already pretty experienced?

I'm a newbie

So, where are you going to use your new
sneakers? On the street, on uneven ground
or at the gym?

<http://www.guided-selling.org/from-e-commerce-to-conversational-commerce/>

Personalisation

Possibility of one-to-one relationship with the customer;
benefits of economies of scale.

BASE

Choose an option:

Smooth Leather



Choose a colour:

Solar Yellow



WORDING

Would you like to personalise your
shoe?

Yes



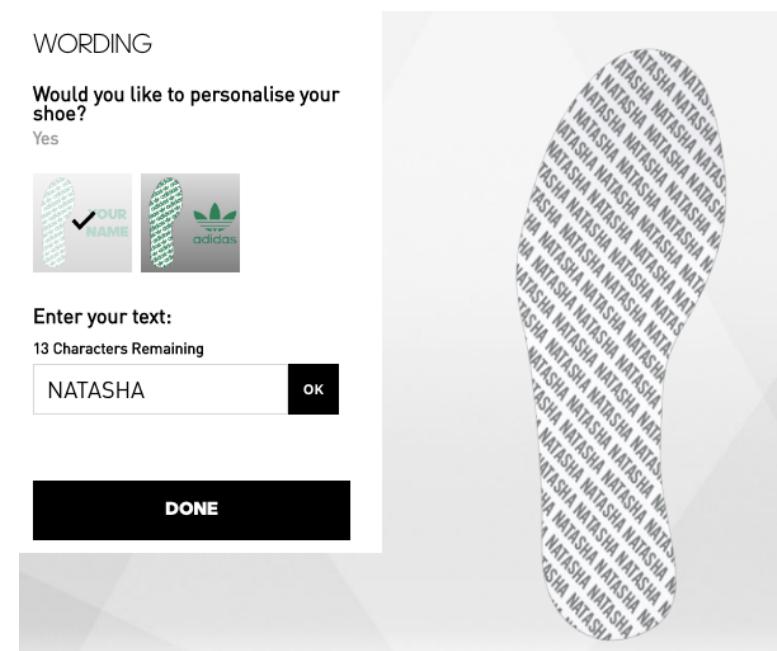
Enter your text:

13 Characters Remaining

NATASHA

OK

DONE



Personalisation

www.mymms.com/noFlash.aspx

Google

McAfee SECURE TESTED 16-NOV

Cart (0) Check Out ▶

Login Register

Personalize M&M'S® with your words and faces

Create Yours | Gifts | Wedding | Occasions | Business | NFL | MLB | NBA | Disney

11/23/2011 Learn More

Sign Up Now ▶

There's a reason it's called "Sweet" 16. Celebrate it with her favorite colors.

Get Adobe® Flash Player

Flash is required to personalize your M&M'S® Get Flash

If you do not have Flash and would like to personalize M&M'S(R), please call us at 1-866-902-2452.

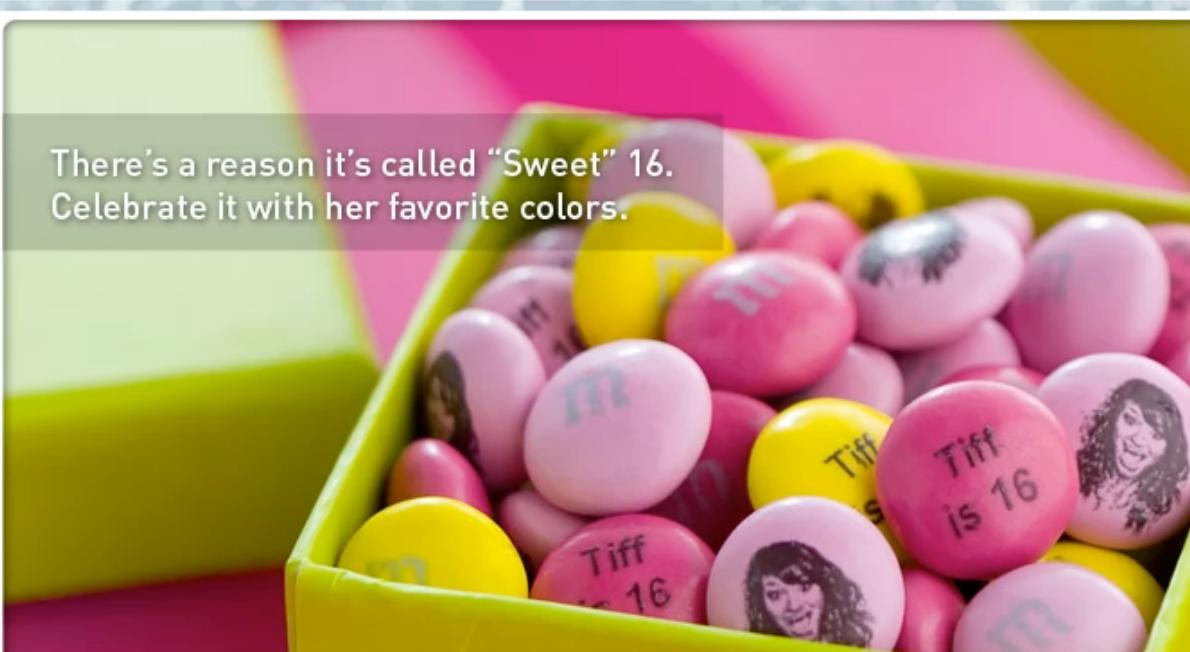
Personalized MY M&M'S® Chocolate Candies are a great way to customize your wedding and event favors, celebrate a birthday, or give as a creative gift.

Pick your favorite sports team! Choose from [MLB](#), [NFL](#) and [NBA](#)!

25 Colors of M&M'S Add life and color to any event! GO

Sports Teams M&M'S Pick your favorite team! [MLB](#) [NFL](#) [NBA](#)

Disney Choose a custom blend of Disney Characters and colors. GO



[Customer Service](#)

FAQ
Price List
Contact Us

[For Your Business](#)

Download B2B Catalog
Volume Discounts
Personalized Packaging

[Get To Know Us](#)

Take a Tour
Tell a Friend
About M&M'S®

[Partner Sites](#)



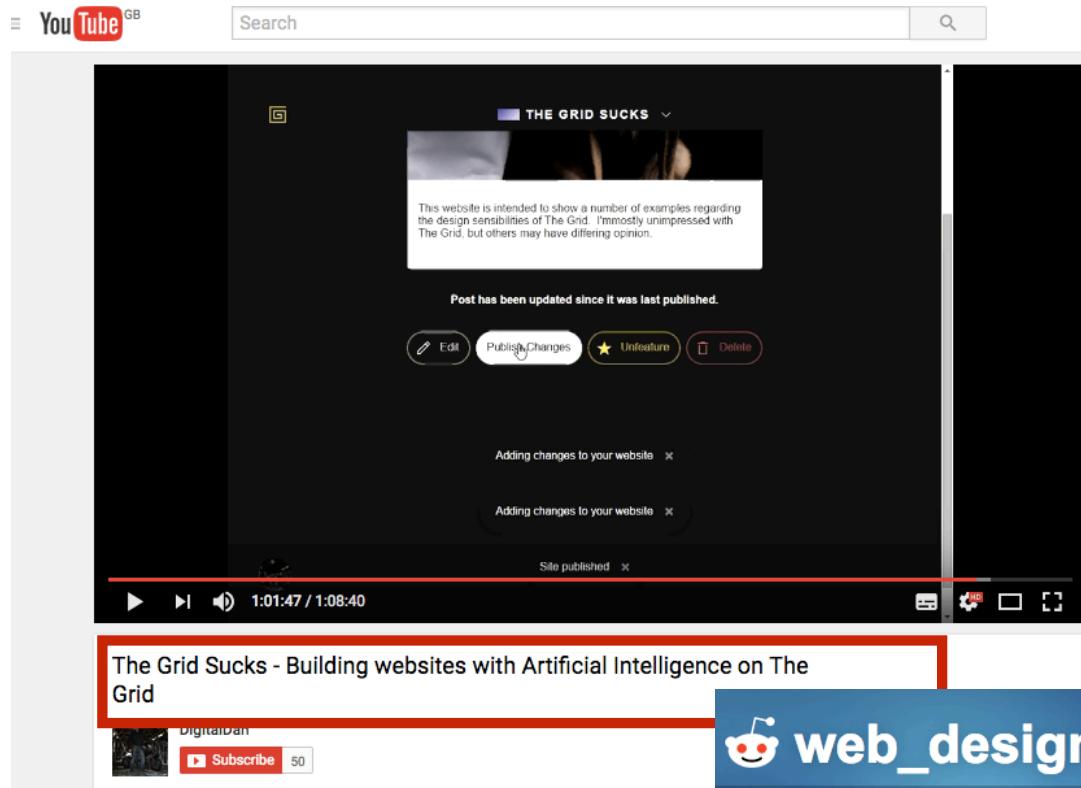
Artificial Intelligence

The Grid: Websites that design and build themselves



See video on Learning
Central

But:



[https://www.youtube.com/
watch?v=0uoEiwT6qEY](https://www.youtube.com/watch?v=0uoEiwT6qEY)

[https://www.reddit.com/r/
web_design/comments/49djj6/
finally_got_to_see_thegridio_sit
es_i_think_your/](https://www.reddit.com/r/web_design/comments/49djj6/finally_got_to_see_thegridio_sites_i_think_your/)

A screenshot of a Reddit post in the 'web_design' subreddit. The post is an archived one, indicated by the message "This is an archived post. You won't be able to vote or comment.". The post content is a link to a blog post: "Finally got to see thegrid.io sites. I think your jobs are safe." The post has 117 upvotes. Below the post, there is a comment from a user named "Bummykins" dated 1 year ago. The comment discusses the marketing videos and the company's transparency. Other comments below mention the blog and links to other websites.

Internet of Things



RFID





VR

VR & Shopping



VR & Training



Vision picking



See videos on Learning Central

Robotics



DHL PostBOTs on the street

NEWS

DHL US trials robots, AI, AR & crowdsourcing to beat Amazon

By Chris Middleton - March 16, 2018

Parcel delivery and logistics firm DHL said today that it is piloting a range of new connected technologies in the US, including collaborative robots, AI, and augmented reality glasses.

The move comes in the wake of retail and Web services hyper-company [Amazon's recent announcement](#) that it is moving into deliveries in America.

"As consumer expectations are rapidly evolving due to a number of major trends, including e-commerce, urbanisation, and sustainability in particular, logistics providers are being challenged to provide more flexible and efficient services," said DHL today.

<https://internetofbusiness.com/dhl-trials-robots-ai-ar-and-crowdsourcing-to-beat-amazon/>

The Telegraph

HOME | NEWS | SP

Technology Intelligence

Gadgets | Innovation | Big Tech | Start-ups | Politics of Tech | Gaming | Podcast | Tech News

Home > Technology Intelligence

World's first robot delivery service launched in Milton Keynes



Save 6



Starship has launched its package deliveries in Milton Keynes

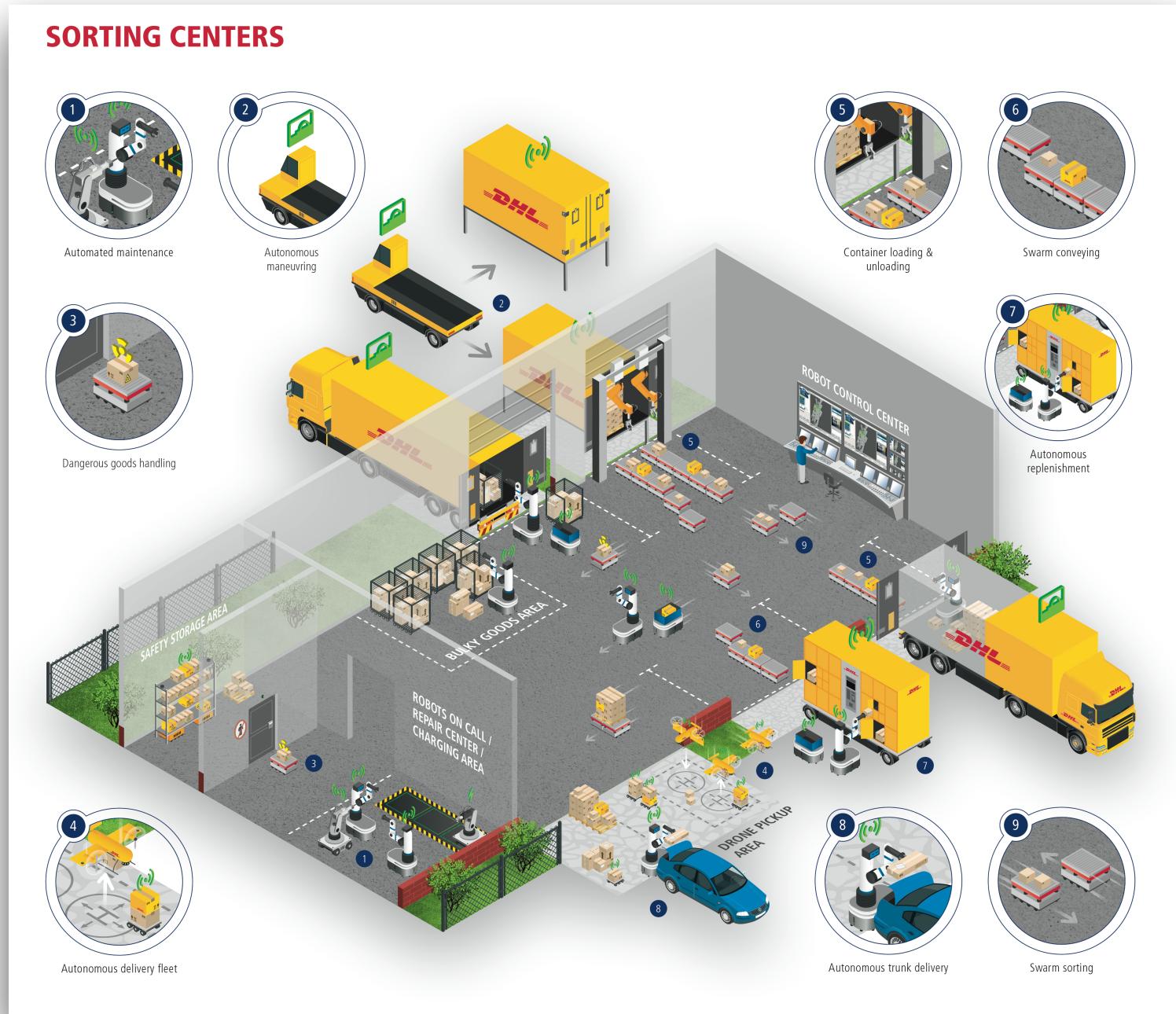
Follow ▾

By Matthew Field
31 OCTOBER 2018 • 4:31PM

Delivery could be about to change, at least for residents of Milton Keynes, as a UK start-up launches the world's first

<https://www.telegraph.co.uk/technology/2018/10/31/worlds-first-robot-delivery-service-launched-milton-keynes/>

DHL: Robotics in Logistics



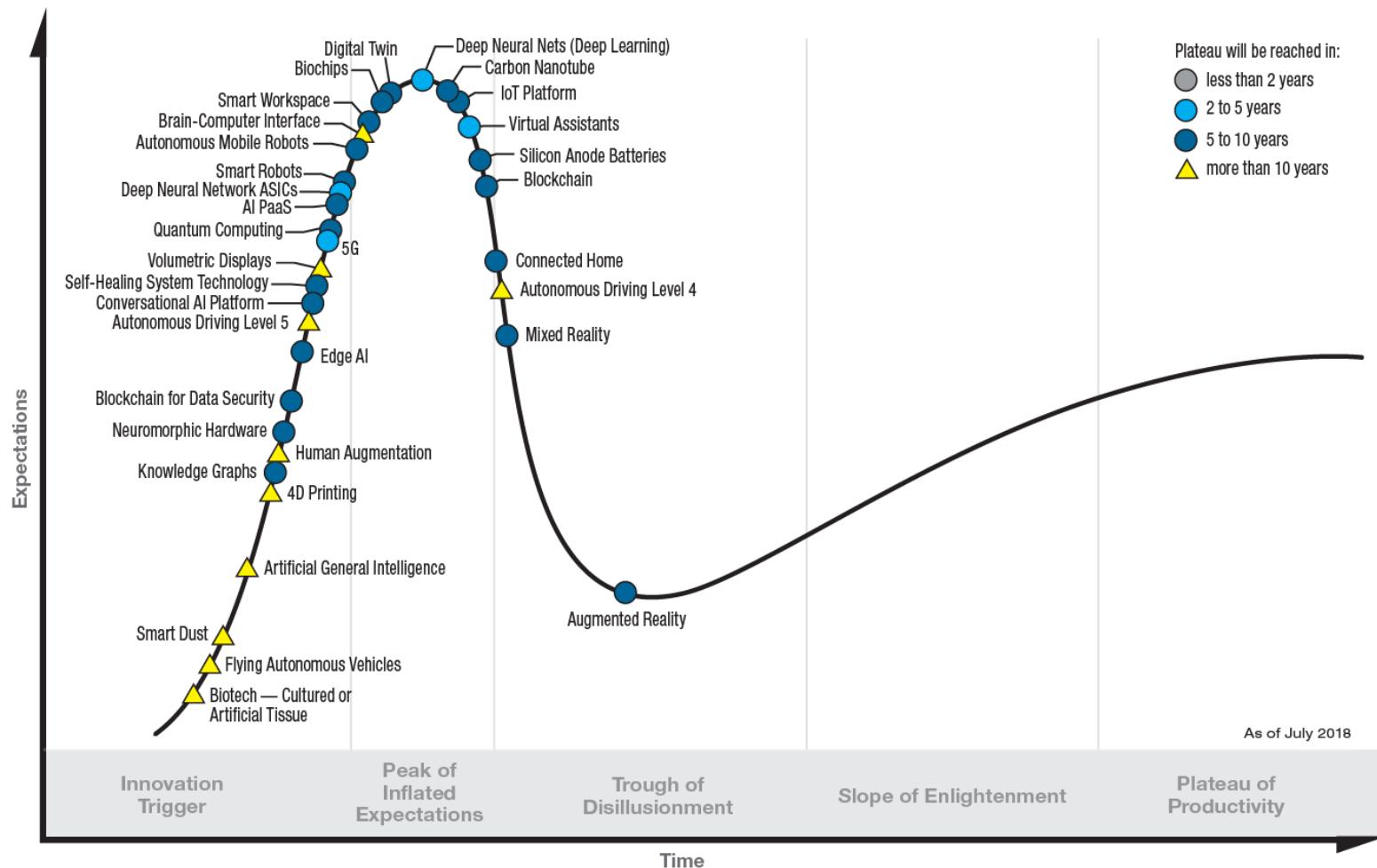
Drone Delivery



What's next?



Hype Cycle for Emerging Technologies, 2018



gartner.com/SmarterWithGartner

Source: Gartner (August 2018)
© 2018 Gartner, Inc. and/or its affiliates. All rights reserved.

Gartner[®]

Gartner Top 10 Strategic Technology Trends 2019

Intelligent



Autonomous
Things



Augmented
Analytics



AI-Driven
Development

Digital



Digital Twin



Empowered
Edge



Immersive
Experience



Privacy
and Ethics



Quantum
Computing

Mesh



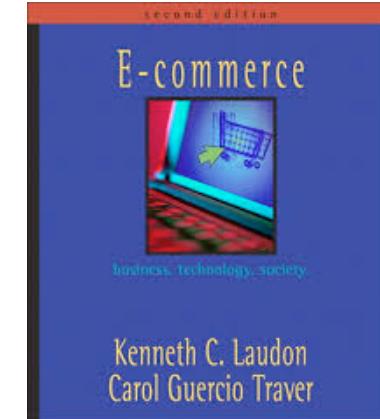
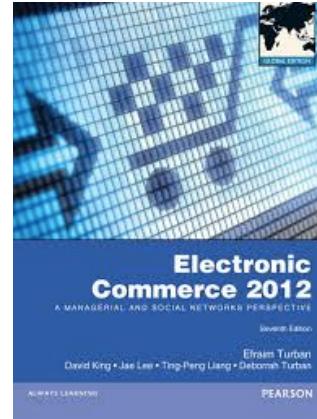
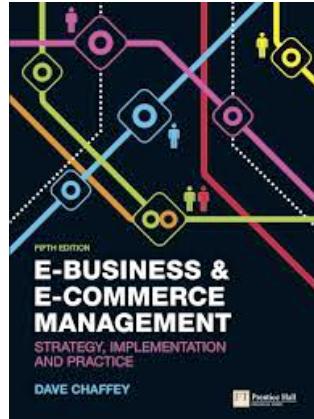
Blockchain



Smart
Spaces

See video on Learning
Central

Resources



- Dave Chaffey (2011). *E-Business & E-Commerce Management: Strategy, Implementation And Practice*, Prentice Hall.
- Efraim Turban et al. (2012). *Electronic Commerce 2012: A Managerial And Social Networks Perspective*, Pearson.
- Kenneth C. Laudon (2015). *E-Commerce : Business, Technology, Society*, Pearson.