digital skills
Exeter & Heart of Devon Skills Partnership

@cosmicjulie

Julie Hawker

- The world is being transformed by a series of profound technological changes – the **second machine age**

- Digital technology is changing all of our lives, the way we work, our society and our politics

- Over the the next 20 years, 35% of jobs will become automated and most jobs don't yet exist
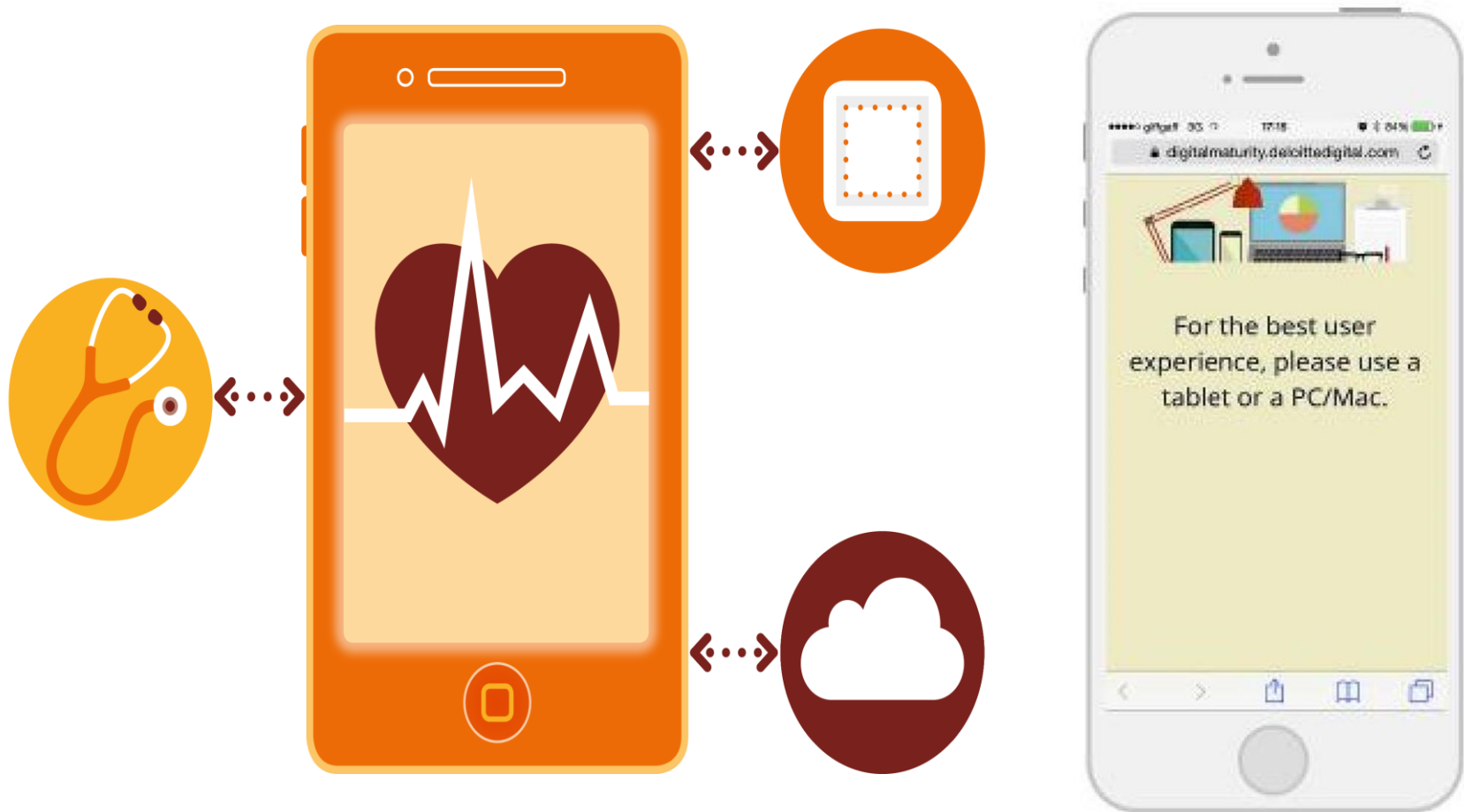
House of Lords Digital Skills Paper 2015

Digital impacts on our **everyday activities**

- Public transport
- Pay for coffee
- Agriculture & farming
- Household goods, shopping
- Keeping fit
- Banking

And in every career we choose

All jobs will have a digital element

For the best user experience, please use a tablet or a PC/Mac.

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Strategic Partners:

Deloitte.

HAYS Recruiting experts worldwide

OVERVIEW

People and work in a robotic age - is your business ready?

Each industrial revolution has had more impact than the last. The fourth industrial revolution will see advancements in artificial intelligence and robotics that are taking place at break-neck speed. Tasks that are repetitive and routine for humans will be increasingly undertaken by machines. As a result of this change, some jobs may

Facebook to open new London HQ, create 500 new UK jobs

By AFP

PUBLISHED: 08:55, 21 November 2016 | **UPDATED:** 08:55, 21 November 2016

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Facebook will open a new London headquarters next year and create another 500 jobs, the leading social network said Monday, despite uncertainty over Brexit.

The group said the move will take its UK workforce to 1,500 staff, adding that Britain "remains one of the best places to be a tech company", amid ongoing jitters over the nation's looming exit from the European Union.

The news comes one week after US tech giant Google confirmed it would expand its vast London campus in a move that could bring 3,000 more jobs.

21 November 2016

Chief Economist's Weekly Brief - No time to rest

Unemployment may be low and job growth robust, but it's not time to rest. The UK's productivity performance is screaming for more investment. So it's encouraging that more spending on infrastructure and R&D look to be key planks of the government's 'industrial strategy'. We await Wednesday's Autumn Statement for more detail.

BUSINESS

There are currently 81,860 businesses across the HotSW (15.8% SMEs) which is 7.5% higher than in 2011 (5,685 growth in businesses since 2011). is significantly below the national business growth rate of 14.1%.

The highest increase in the business stock has been experienced in Plymouth: 9.7% (660 new businesses), and the lowest, yet positive, rate of business growth is seen in Torbay (260, 5.7%).

LABOUR MARKET

There were 9,419 JSA claimants (0.9% of the working age population, compared to UK 1.5%) across the Heart of the SW in July 2016. This is an annual decrease of 16.6% on May 2015, compared with a national decrease of 22.5%.

When the LEP is examined by Local Authority, the pace of annual change varies: Plymouth (-11%), Devon (-18%), Somerset (-19%), Torbay (-23%). Devon and Somerset continue to have the lowest JSA claimant rate (0.7%, respectively), followed by Torbay (1.5%) and Plymouth (1.8%). The highest number of claimants in absolute terms is found in Plymouth (3,049) and Devon (3,029 claimants).

BUSINESS

Net Business Growth since 2011

PLY
660
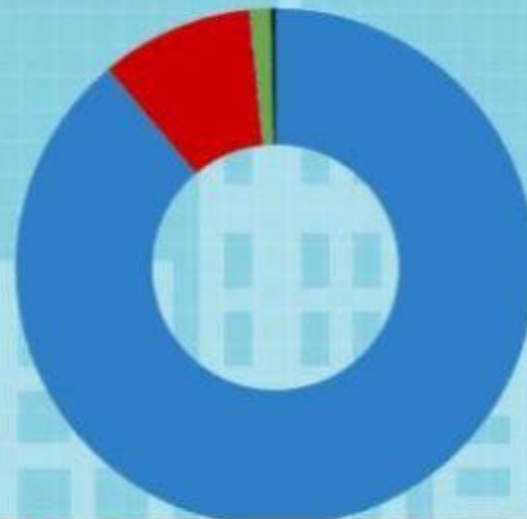+9.7%

DEV
2,725
+6.9%

SOM
2,035
+8.0%

HotSW
5,685
+7.5%

TOR
260
5.7%

Size of Businesses in HotSW vs UK (2015)

UK

2,173,355
—— 89%

227,770
—— 9.3%

38,940
—— 1.6%

9,360
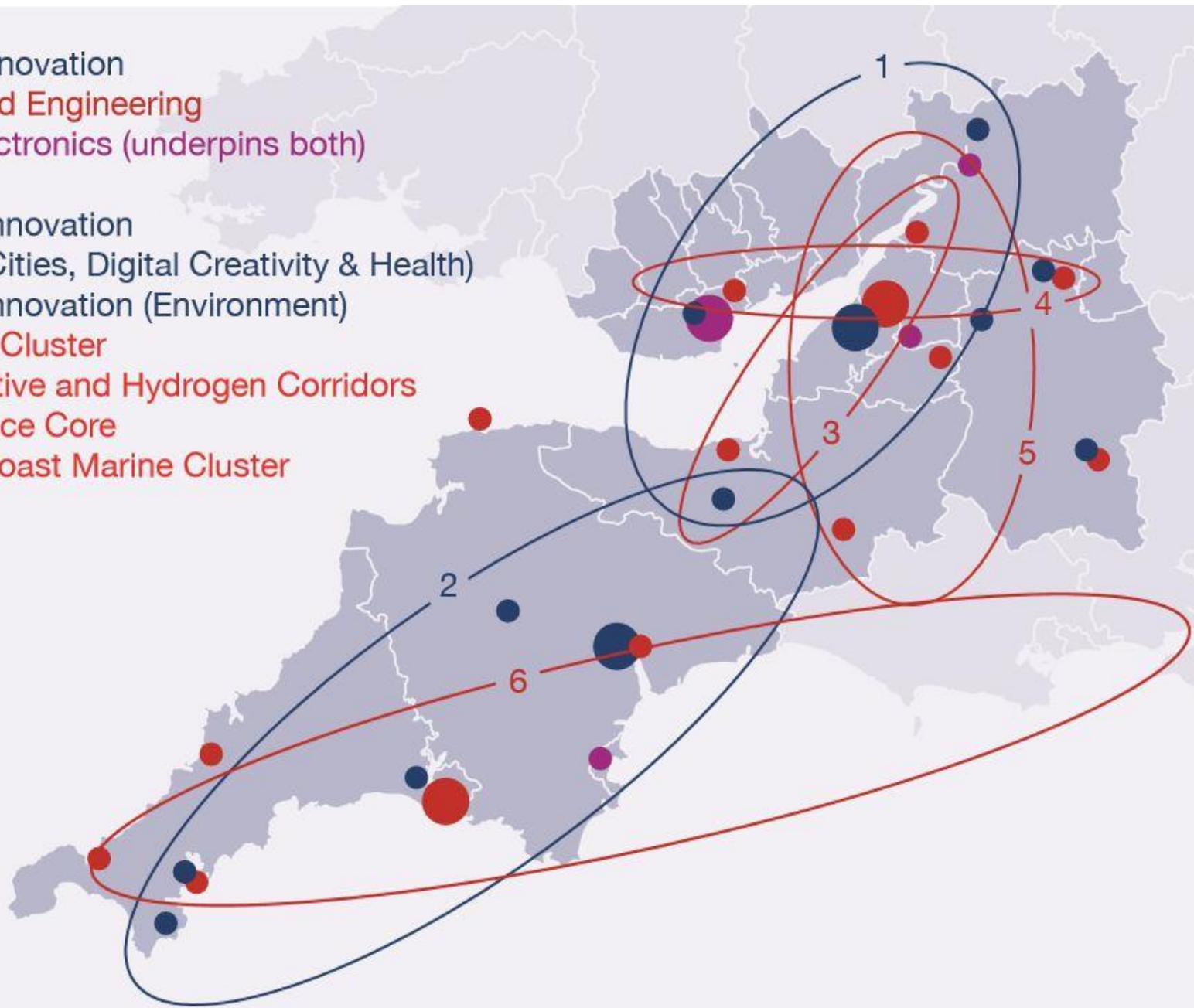—— 0.4%

HotSW

61,470
89% ——

6,585
9.5% ——

950
1.4% ——

180
0.3% ——

■ Micro(0-9) ■ Small (10-49) ■ Medium (50-249) ■ Large (250+)

● Digital Innovation
● Advanced Engineering
● Microelectronics (underpins both)

1. Digital Innovation
   (Smart Cities, Digital Creativity & Health)
2. Digital Innovation (Environment)
3. Nuclear Cluster
4. Automotive and Hydrogen Corridors
5. Aerospace Core
6. South Coast Marine Cluster

Digital Innovation Key Strengths

Home to the largest silicon design cluster outside of the USA[2], and a recognised powerhouse of electronics and computing in industry and in academia.

Expertise in smart cities, digital media, autonomous systems, risk, resilience and digital health in which the SWW is the national exemplar.

Pioneering technology expertise in cloud computing; communications; Internet of Things; cyber security; sensors; virtual and augmented reality; robotics / autonomous systems; microelectronics; wireless technologies; data analytics; vision; remote sensing; satellite applications; high performance computing; and quantum engineering.

Home to the most productive and second largest digital economy cluster in the UK.[3]

World leading expertise in the fields of natural hazards, climate change, marine science and broader environmental sciences; combined with the data modelling and analytics expertise, capability and assets required to translate this into profitable intelligence.

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> Undergraduate study > Subjects 2017 > Computer Science and IT > Digital and Technology Solutions degree apprenticeship

BSc Digital and Technology Solutions

Duration	4 Years
Typical offer	AAB; BTEC Level Three Extended Diploma DDD; IB 34
Discipline	Computer Science and IT
Location	**E** Streatham (Exeter)

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DIGITAL & TECHNOLOGY SOLUTIONS
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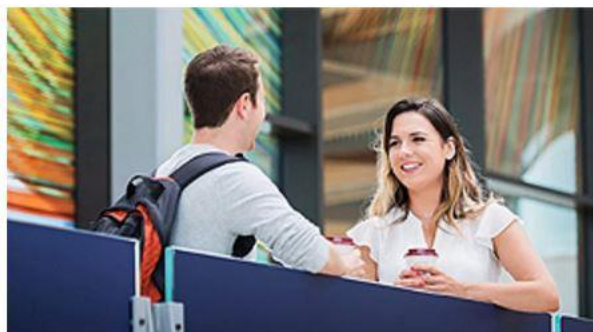
| Overview | The degree | The apprenticeship | Applications | Entry requirements | Learning | Contact |

About the apprenticeship

As an apprentice you will be a full salaried member of your organisation, typically earning between £13,000 and £19,000. Much of your learning will take place at work, either through projects linked to academic content or time set aside for distance learning.

Depending upon the vacancy you've applied for, you might be working for a small IT start-up or a multinational corporation. Either way, you're employer will be fully committed to and supportive of your studies.

High : Skill, Wage,
Aspirations, Income

Low : Skill, Wages,
Aspiration, Income

MORE DIGITAL APPRENTICESHIP ROLES NEEDED

Cosmic harnessing young digital talent

Opportunities

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| Opportunity Title	App Start Date	App End Date	Course Start Date	
Digital Marketing Apprentice	31/10/2016	07/12/2016	04/01/2017	👁 More Details
Digital Marketing Apprentice	07/11/2016	28/11/2016	20/02/2017	👁 More Details
Digital Marketing Apprenticeship	02/01/2017	28/11/2016	20/02/2017	👁 More Details
Social Media & Digital Marketing Apprentice	01/11/2016	07/12/2016	04/01/2017	👁 More Details

World Population by Generation

Worldwide and in the U.S., Millennials are the largest generation yet - some 2.3 billion strong. (U.S. Census Bureau)

- Builders
- Boomers
- Gen X
- Millennials
- Next Gen

2015   2020   2025   2030   2040

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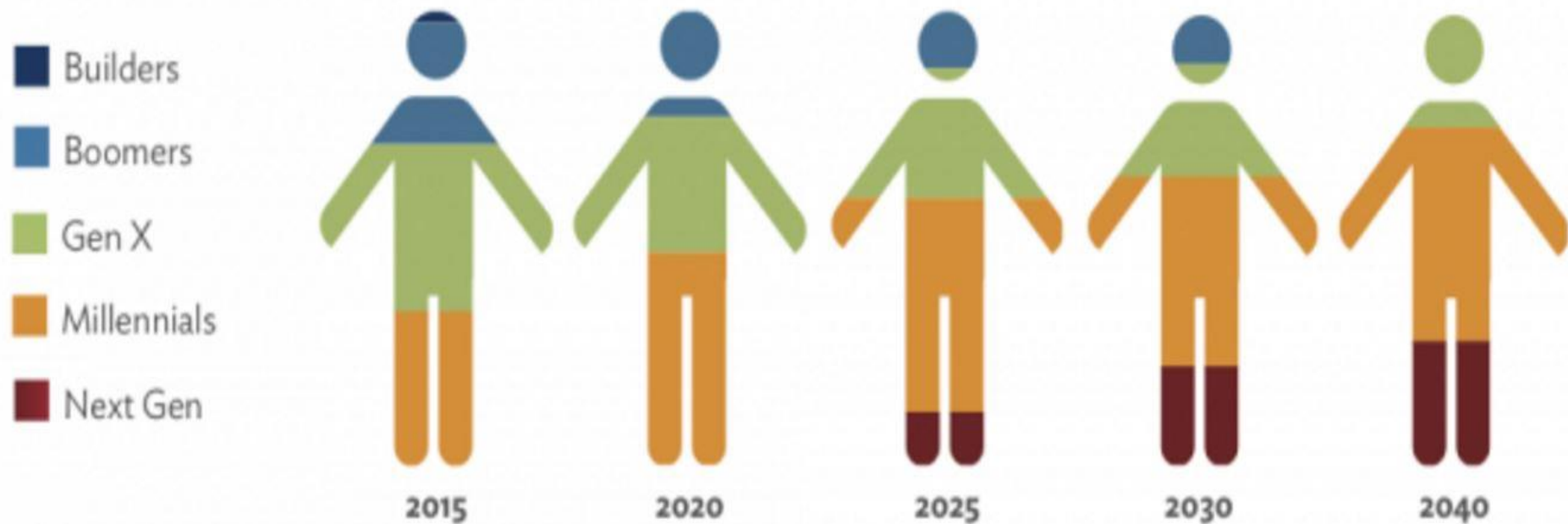
- *"The millennial generation, born between 1980 and 2000 now entering employment in vast numbers, will shape the world of work for years to come.*
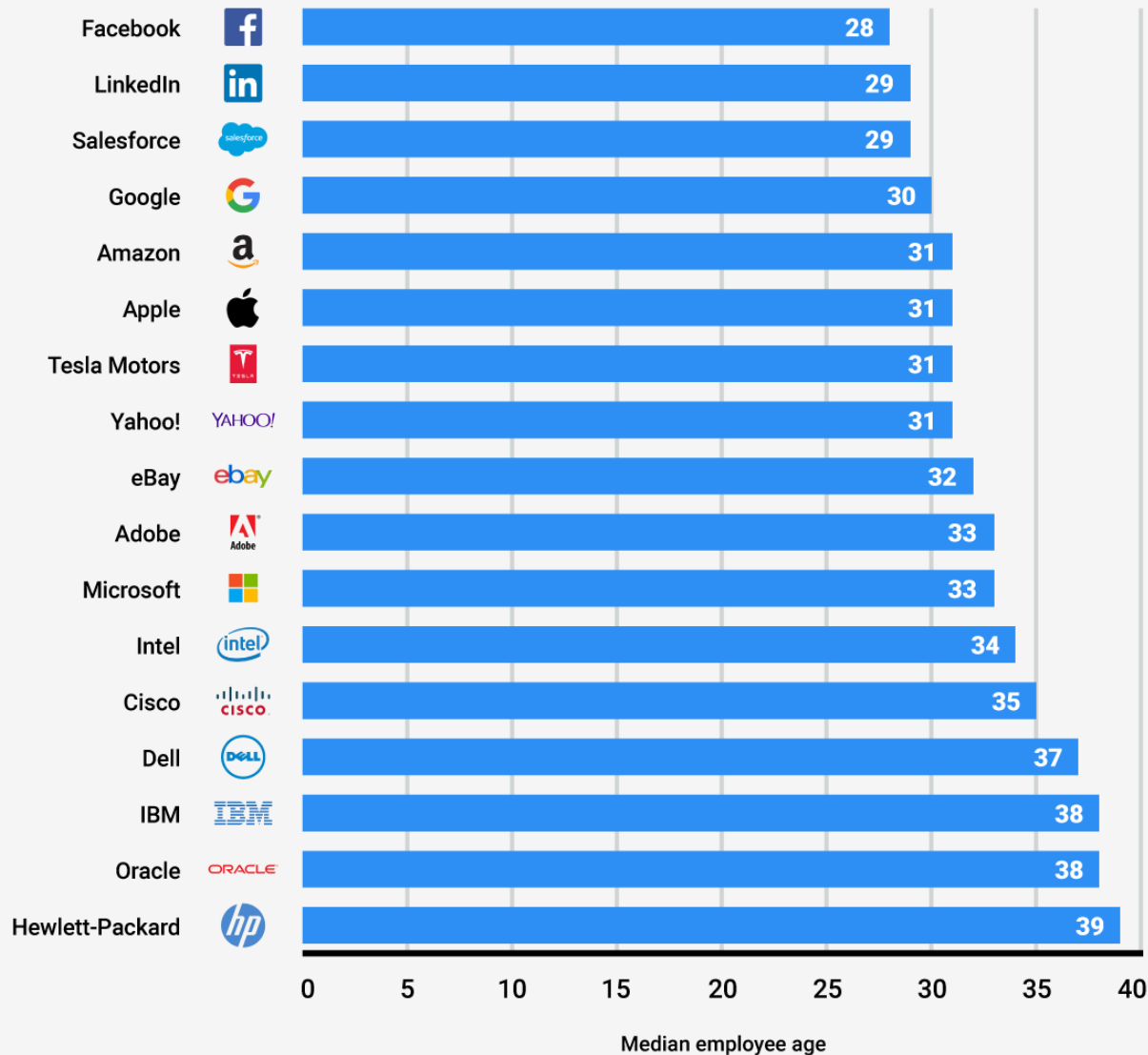
- *Attracting the best of these millennial workers is critical to the future of your business. Their career aspirations, attitudes about work, and knowledge of new technologies will define the culture of the 21st century workplace".*

www.pwc.com/people

Millennials at work
Reshaping the workplace

HOW OLD ARE THE EMPLOYEES AT TOP TECH COMPANIES

Company	Median employee age
Facebook	28
LinkedIn	29
Salesforce	29
Google	30
Amazon	31
Apple	31
Tesla Motors	31
Yahoo!	31
eBay	32
Adobe	33
Microsoft	33
Intel	34
Cisco	35
Dell	37
IBM	38
Oracle	38
Hewlett-Packard	39

Median employee age
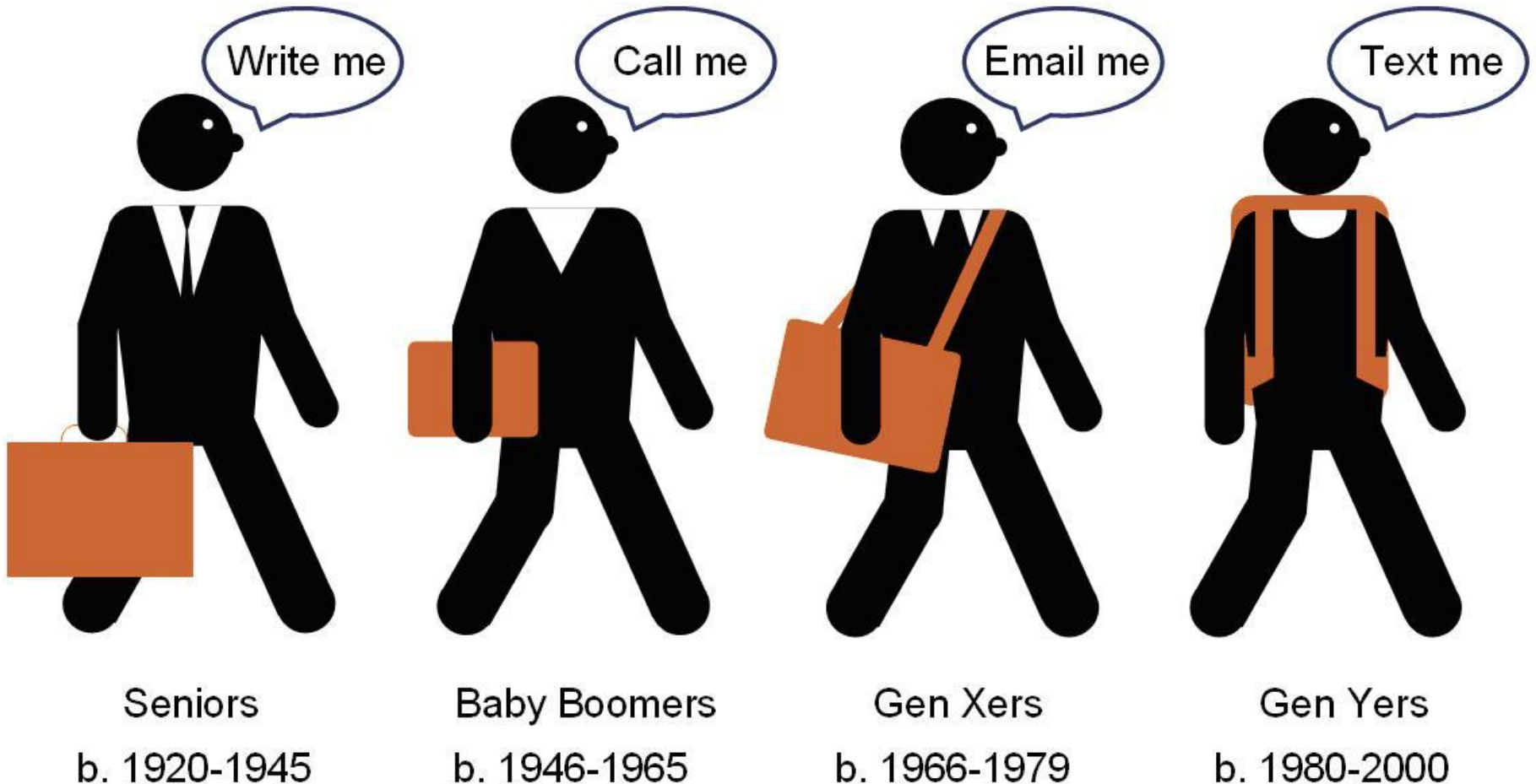
What Makes Your Generation Unique?

By *PewResearch* Center

Millennials
Technology use (24%)
Music/Pop culture (11%)
Liberal/Tolerant (7%)
Smarter (6%)
Clothes (5%)

Gen X
Technology use (12%)
Work ethic (11%)
Conservative/Trad'l (7%)
Smarter (6%)
Respectful (5%)

Boomers
Work ethic (17%)
Respectful (14%)
Values/Morals (8%)
"Baby Boomers" (6%)
Smarter (5%)

Traditionalist
WW II, Depression (14%)
Smarter (13%)
Honest (12%)
Values/Morals (10%)
Work ethic (10%)

Note: Based on respondents who said their generation was unique/distinct. Items represent individual, open-ended responses. Top five responses are shown for each age group. Sample sizes for sub-groups are as follows: Millennials, n=527; Gen X, n=173; Boomers, n=283; Traditionalists, n=205.

COMMUNICATING
Communicate, interact, collaborate, share and connect with others

CREATING
Engage with communities and create basic digital content

TRANSACTING
Purchase and sell goods and services, organise finances, register for and use Government digital services

MANAGING INFORMATION
Find, manage and store digital information and content

PROBLEM SOLVING
Increase independence and confidence by solving problems using digital tools and finding solutions

2016 BASIC DIGITAL SKILLS

More EQ … Less IQ

"The workplace and workforce are going to change pretty dramatically as we look forward. The entire concept of work is going to become more flexible. The skills needed in the workforce are going to be less about IQ and a little bit more about EQ, because if you think about it, a lot of IQ knowledge is going to be available at our fingertips through hand-held devices and the computer and technologies that we have at our disposal."

Deborah Henretta,
Group President, Asia & Global Specialty Channel
Procter & Gamble

Future Work Skills 2020

While all six drivers are important in shaping the landscape in which each skill emerges, the color-coding and placement here indicate which drivers have particular relevance to the development of each of the skills.
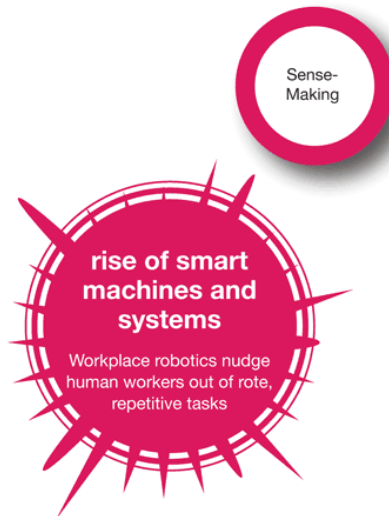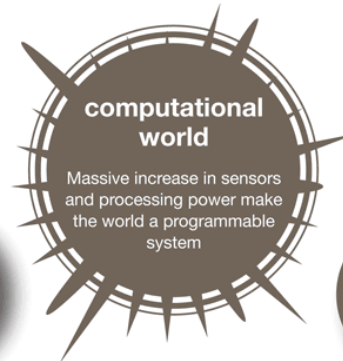
KEY

- Drivers—disruptive shifts that will reshape the workforce landscape
- Key skill needed in the future workforce

extreme longevity
Increasing global lifespans change the nature of careers and learning

computational world
Massive increase in sensors and processing power make the world a programmable system

superstructed organizations
Social technologies drive new forms of production and value creation

rise of smart machines and systems
Workplace robotics nudge human workers out of rote, repetitive tasks

new media ecology
New communication tools require new media literacies beyond text

globally-connected world
Increased global interconnectivity puts diversity and adaptability at the center of organizational operations

Skills:
- Trans-disciplinarity
- Sense-Making
- Design Mindset
- Virtual Collaboration
- New Media Literacy
- Cross Cultural Competency
- Social Intelligence
- Novel and Adaptive Thinking
- Cognitive Load Management
- Computational Thinking

INSTITUTE FOR THE FUTURE

New IoT job roles

Top 10 skills

in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

What can UK businesses do to close the technology skills gap?

By James Smith 5 days ago

The digital skills deficit we're experiencing now is only likely to worsen before the situation gets better.

With £63 billion at risk of being lost from the UK economy each year as a result of the digital skills gap, as British citizens, we can all stand to gain if we make an effort to plug the gap. Currently, the UK has the largest digital economy in the G20 but with growth of 15 per cent expected next year; the digital skills deficit we're experiencing now is only likely to worsen before the situation gets better. But what is the solution and who can deliver it?

Of course the Government has a large part to play in ensuring the UK has the skills to remain competitive in the global digital industry. And we are already seeing promising levels of investment in key digital sectors such as cyber security with the launch of the new National Cyber Security Centre in October and the Government's confirmation of a £1.9 billion cyber security strategy.

Exeter & Heart of Devon Skills Partnership

Mark Shepherd, Chairman

"Digital is fundamental to Exeter & Heart of Devon achieving a world-class workforce where every individual matters.

We want to reduce the **Digital Divide** by increasing everyone's digital skills, as 90% of new jobs need them, and 23% of people lack even basic digital skills.

AND we want to improve **Digital Depth** to maximise the assets and opportunities of the University, Exeter Science Park, the Met Office and other businesses and collaborations in our burgeoning IT/Tech sector."

What can you do?

1. Maximise your digital talent

2. Develop your digital vision

3. Partnerships and collaboration

4. Bring digital to the top

Keep in Touch

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