

CONCOURS EDHEC 2018

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ANGLAIS

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Make an impact

Government must reconsider 'punitive' student loan interest rates, MPs say

Eleanor Busby Education Correspondent

The Government must reconsider “punitive” high interest rates on student loans and look at bringing back maintenance grants for poorer students, an influential Commons committee has said. Cross-party MPs on the Treasury Committee said that the Government should re-examine the student loan system which allows “high-flying lawyers” to pay less back than teachers.

The report comes as the Government prepares to announce the details of its long-awaited review of tuition fees and university funding tomorrow. It is likely that the review, due to be announced by the prime minister in a speech, will consider whether tuition fees - which currently cost up to £9,250 a year up for students in England - could be cut or frozen. And a proposal to lower interest rates on student loan repayments – which currently stand at up to 6.1 per cent – could be included in the review following criticism.

In a new report, the Treasury Committee has added its voice to the debate, arguing that “the punitive measure” of charging high interest rates on tuition fee loans should be reconsidered. It said: “The Government has justified the existing level and structure of interest rates on student loans on the grounds that it is progressive. In reality, the student loan system has complex redistributive effects that are not strictly progressive.” For example, high-flying lawyers will generally pay less back than teachers. MPs say this “anomaly” should be addressed to ensure the highest earning graduates make the highest contribution. The report also calls on the Government to explain why the £9,250 tuition fees are “desirable”, adding that ministers had “naively assumed” that most universities would opt for £7,500 when setting their fees following the reforms in 2012.

And the Government should consider the case for reintroducing maintenance grants to help remove barriers for poorer students. Conservative chair Nicky Morgan said: “The Government has said that maintenance loans aren’t intended to fully cover a student’s living costs. If a student can’t access additional sources of income, they may be priced out of university.” The MP, who was education secretary under David Cameron from 2014 to 2016, added: “The use of high interest rates on student loans is questionable. “The Government has justified it on progressive grounds, but the Committee remains unconvinced as high-flying graduates may pay less than graduates on more modest earnings. “No other persuasive explanation has been provided for why student loan interest rates should exceed those prevailing in the market, the Government’s own cost of borrowing, and the rate of inflation. “The Government must reconsider the use of high interest rates on student loans as part of its review.”

Theresa May announced a review of university finance at the Conservative Party conference last autumn, pledging to “look again” at the system. The prime minister also announced plans to freeze tuition fees at the current level, rather than allow them to increase with inflation. The debate was sparked in part by a high-profile Labour Party general election pledge to scrap tuition fees for all future students. Sally Hunt, general secretary of the University and College Union, has called for any review of student funding to be “radical”.

She said: “If this review is to serve any purpose then it needs to be radical and explore genuine alternatives to the current system, not just tinker at the edges of the current failed system. “Too often recent reviews have simply resulted in finding new ways to saddle students with record levels of debt.” On the Treasury Committee’s report, Alistair Jarvis, chief executive of Universities UK, said: “The system needs to be better understood and to feel fairer to students. “More should be done to address students’ concerns about living costs so that no one is deterred from benefiting from a university education. He added: “New investment to re-introduce maintenance grants for the poorest students would be a positive step.”

A Department for Education spokesperson said: “Our student finance system has many strengths. We have removed upfront barriers to entry and are seeing record numbers of 18-year-olds from disadvantaged backgrounds now going to university. “Furthermore, graduates do not pay back anything until they are earning over £21,000 – rising to £25,000 from April. “We will shortly be conducting a major review of post-18 education to build on the action we’ve already taken and ensure a joined-up system that works for everyone. “We welcome this report from the Treasury Select Committee, which will be considered as part of the evidence base for the review.”

From Shooting to Gun-Control Movement --- Digitally savvy students naturally turned to social media, invoking #NeverAgain

By Arian Campo-Flores and Nicole Hong

Two days after the school shooting in Parkland, Fla., that left 17 people dead, David Hogg feared public interest in the massacre was waning. The 17-year-old student at the school trained a camera on fellow students at a park, began broadcasting live on Twitter's Periscope app and asked them to describe life after the carnage. The segment drew more than 33,000 viewers, some chiming in with comments such as, "Keep speaking out. Be the change."

"I started live-streaming so people could see, to reignite the interest," said Mr. Hogg, a senior at Marjory Stoneman Douglas High School who has become one of the most prominent gun-control activists in the aftermath of last week's shooting. "I was getting worried, like this is over, people do not care." The students at Stoneman Douglas aren't like those who witnessed previous mass shootings at schools such as Columbine High School in 1999 or Virginia Tech in 2007. They are digital natives, at one with the language and power of smartphones and social media. That is one reason why the movement they started, dubbed #NeverAgain, has become a nationwide phenomenon in barely a few days, and shows signs of becoming the kind of campaign success that a company or politician can only dream of.

In particular, they have successfully used Twitter to build a grass-roots network of activists, leading to school walkouts around the country this week by students protesting gun violence. They came up with a hashtag that has been picked up by celebrities around the world. They are tweeting directly at President Donald Trump and their online critics. They have made powerfully emotional speeches for gun control that have gone viral. The messages are expressed in genuine, teenage voices -- alternating between lighthearted selfies and posts about how they are coping with trauma.

For many younger millennials, social media is woven into their daily routines as a way to communicate and express themselves. Even during the shooting, students instinctively took to social media to share photos and videos as they hid from the gunman in their classrooms, giving the American public a chillingly close-up view of the horrors of school shootings.

In four days, they have raised \$2.2 million in an online fundraiser for a rally next month, and people like Oprah Winfrey and Steven Spielberg have pledged millions more. At a CNN town hall, the students on national television confronted Sen. Marco Rubio, who softened his earlier position by saying he would support certain gun restrictions. They took buses to Tallahassee to meet with Gov. Rick Scott, who announced on Friday a series of proposals including a ban on the sale of firearms to people younger than 21. That pressure has created a potential opening for the sort of significant legislative action, in Florida and in Congress, that has proved elusive in the wake of previous mass shootings.

"One of their greatest sources of power is their facility with social media," said Elizabeth Matto, a professor at Rutgers University who studies youth political participation. "These students in Florida are not just using social media to raise awareness, but they're actually trying to influence the makeup of government."

The day after the shooting, a small group of students at Stoneman Douglas, which serves an affluent pocket of South Florida, gathered to grieve and decide how to respond. Cameron Kasky, a 17-year-old junior, proposed using "Never Again" as a hashtag to project a short, clear message. The group created a Facebook page, Twitter handle and Instagram account. They set up a private chat group to plot strategy. On social-media platforms, they urged the more than 3,000 students at the school and people across the country to tweet #NeverAgain at 3 p.m. on Feb. 16. The hashtag went viral and has since been shared at least 500,000 times, according to a Twitter representative. The next day, Emma Gonzalez, an 18-year-old senior, made an impassioned speech at a gun-control rally in Fort Lauderdale, Fla., a video that has since been viewed millions of times on social media. Her Twitter following has grown to more than 360,000.

The students met at a house in the Parkland area that became their nerve center, working on laptops arrayed on a kitchen counter. Many of them knew each other from the school's drama or broadcast journalism programs -- activities that honed their ability to speak publicly and passionately. "We know how to use social media," said Delaney Tarr, a 17-year-old senior. "We realize that so many movements, so many activists have gotten such large followings" with digital tools. But, she said, "I don't think we expected it to blow up."

The Wall Street Journal, 24 February 2018

Revealed: what sexism in call centres can teach us about sexism in society

Anna Kristina Hultgren

Although you are likely to have dealt with both male and female call centre agents, the fact is that 71% of workers in the global call centre industry are female. Dubbed the “female ghetto” or, more positively, “female-friendly workplaces”, women are significantly over-represented in call centres. The reason for this is linked to one of the biggest conundrums in gender equality: how can it be that girls consistently outperform boys in schools and yet, by the time they reach adulthood and enter into the professional arena, they earn less, occupy fewer leadership roles and generally have a lower status and less influence?

My research sheds light on this phenomenon. After extensive interviews with call centre managers and agents, as well as an investigation into the industry’s working culture and practices in Scotland and Denmark, it became clear that call centres are built on the sexist attitudes embedded in society. Call centres are intensely regulated and target-driven work places. Agents are instructed to speak to customers in certain ways. The extent to which they follow these instructions is monitored by managers, and their salaries and career advancement can depend upon it. Agents may be told to use the customer’s name, create small talk and interject with prescribed “listening sounds” such as “aha”, “OK” and “I see”. The purpose is to ensure that agents keep the call on track and also give the impression of a personalised service.

When I compared male and female call centre agents’ compliance with the language prescriptions, an interesting pattern emerged: it was invariably the female agents who complied more. This was the case for both the Scottish and the Danish women. In other words, the female call centre agents more often than their male colleagues acknowledged the customer’s problem, used their name, encouraged them to call back if necessary and finished with a personal touch, such as “have a good weekend” – just as they had been told to do by their managers.

Why would female agents comply more than their male colleagues with the linguistic prescriptions? There is evidence from child development and schooling research that girls are rewarded for complying with the rules and sanctioned more severely than boys for breaking them – such as messing around or shouting out in class. It is conceivable that these socialised differences carry over into the workplace. These differences then show up particularly clearly in highly regimented workplaces, where following instructions and meeting targets is how your performance is measured. Greater female rule keeping would explain both these phenomena. But while rule compliance is valued and rewarded in schools, by the time young women enter the professional arena it may start to work against them. It keeps them in highly regimented jobs with low prestige and little influence.

Other research has found similar things. Interviews with call centre managers and recruiters suggest that female workers are preferred over males because they stick to the rules. Of course, greater female rule compliance is just one among several explanations for why women are disproportionately represented in call centre jobs. Some women may choose themselves to work in call centres. Call centre work is often amenable to flexible working, which makes it attractive to women of child-rearing age. And, of course, there are deep-rooted beliefs in society about the different strengths of each gender. Service jobs require emotional labour, which women are believed to be particularly good at. Call centres have opened up new opportunities for women in the UK and across the world. However, in the longer term, the over-recruitment of women to the industry could be detrimental to gender equality.

Call centre jobs are notorious worldwide for their high levels of turnover, absenteeism, employee burnout and emotional exhaustion. Agents are at constant risk of angry outbursts from customers, sexual harassment and outright abuse. If women are driven into these low-paid and stressful jobs, where they have little influence and low status, talent will be lost. It also potentially discriminates against men who could and would want to do the job. Yet call centre jobs are here to stay. In Europe, where my research was carried out, the industry grows by 10% each year. And call centres are now one of the most significant employers in the globalised service economy. If we want to have a more diverse workforce and exploit everyone’s talent to its full potential, it is time to start challenging call centre recruitment practices.

How to Bounce Back After a Business Venture Goes Awry

By Sarah Landrum

Even many of the most successful entrepreneurs have had the experience of a business venture going wrong. The intricacies of business can cause a venture to falter, even if you're not directly responsible for the downfall. Unfortunately, the many moving cogs of a new venture can cause you to overlook essential factors, resulting in a regretful business venture. Many entrepreneurs stress the importance of bouncing back. As Bill Gates says: "It's fine to celebrate success, but it is more important to heed the lessons of failure." The best entrepreneurs use the experience of a faltering business venture to bounce back more forcefully than ever before with new projects. There are several ways to bounce back strong after a business plan goes adrift.

1. Don't conflate a startup's potential. In reality, many startups don't turn out quite as planned. A Harvard Business School study finds that 75 percent of venture-backed startups fail. However, many fledgling entrepreneurs only see examples of startup success in the media, with former startups like Snapchat, Airbnb and Dropbox among the numerous success stories. Especially with many of these former startups so prevalent in day-to-day life, the idea of startup success can conflate into an unrealistic vision. The false impression of most startups finding success, when the opposite is true, can lead to some unwise entrepreneurial planning. Without recognizing the possibility of a given startup failing, some entrepreneurs can blindly devise a business plan without heeding any potential hiccups or bumps in the road. If your business plan doesn't go as intended, it's worth evaluating precisely why that happened, regardless of whether you had anything to do with it personally. It's also worth acknowledging that the venture simply ended up like many do, so don't treat it as an indictment of your potential or talent. From Warren Buffett to Bill Gates, even the most successful entrepreneurs have their share of investment and entrepreneurial failures.

2. Realize that profit is rarely immediate. With some exceptions, new business undertakings are unlikely to be profitable in their first year or two. A piece of knowledge that a faltering business can provide is the lack of immediacy in success. When starting your next venture, it will be easier to remember the multitasking, demanding work hours and mental requirements of your previous venture, helping you to form a decision over whether or not it's going well. This time, with the earlier challenges fresh in your mind, prudence will play a larger role in evaluating the success of a business idea. Especially if your previous venture showed potential, but you lacked for capital to continue the experiment longer, it can be worthwhile to take some time off to gather funding before launching the next plan. Ideally, businesses should be able to support themselves financially for a given period, while buzz builds and the business model gets truly underway.

3. Merge new lessons with a new industry. A business venture that goes off-course can teach multiple lessons about that industry itself, particularly in how its customers react to a new product or service. Perhaps your business plan and idea felt solid, though the approach was not received well in the niche. If the product or service is in any way compatible with another industry, it can be very worthwhile to consider exploring that industry instead, especially if it's an industry where you have pre-existing contacts.

4. Keep track of happy customers. Even if your previous business plan didn't work out as planned, you could still have previous customers that were happy with the product/service, or even your charm as a salesperson. When getting your next venture underway, be sure to reach out to these customers, mentioning your connection to the business with which they're familiar and happy. Ideally, you will be able to get some lucrative leads with pre-existing connections.

5. Take inventory. There are different levels of severity for a faltering business. Some failed business may drain investors dry, while others may have pulled the plug before serious damage occurred. Regardless, it's prudent to take inventory of the funds and resources you do have. Taking inventory helps provide a realistic picture of when you can hop back on the horse and pursue a new idea, in addition to how much you can realistically invest in terms of money and time.

6. Define more realistic goals. Experience with a misguided business venture can help lead to more realistic goals in the future, with new knowledge surrounding what does and doesn't work, in addition to realistic monetary expectations for the short and long-term within a specific industry. Plus, experience from past failures helps to correct and adjust in the future, enhancing your knowledge at the moment as you take action. A wavering or unsuccessful business endeavor is nothing new to the majority of active entrepreneurs. What's important is how you bounce back, ideally with more gusto and passion than before. Failure can result in expanded knowledge regarding more realistic goals, networking opportunities and personal strengths, helping to increase the likelihood of your next endeavor being a smash hit.

No evidence to support link between violent video games and behaviour

University of York

In a series of experiments, with more than 3,000 participants, the team demonstrated that video game concepts do not 'prime' players to behave in certain ways and that increasing the realism of violent video games does not necessarily increase aggression in game players. The dominant model of learning in games is built on the idea that exposing players to concepts, such as violence in a game, makes those concepts easier to use in 'real life'.

This is known as 'priming', and is thought to lead to changes in behaviour. Previous experiments on this effect, however, have so far provided mixed conclusions. Researchers at the University of York expanded the number of participants in experiments, compared to studies that had gone before it, and compared different types of gaming realism to explore whether more conclusive evidence could be found.

In one study, participants played a game where they had to either be a car avoiding collisions with trucks or a mouse avoiding being caught by a cat. Following the game, the players were shown various images, such as a bus or a dog, and asked to label them as either a vehicle or an animal. Dr David Zendle, from the University's Department of Computer Science, said: "If players are 'primed' through immersing themselves in the concepts of the game, they should be able to categorise the objects associated with this game more quickly in the real world once the game had concluded. "Across the two games we didn't find this to be the case. Participants who played a car-themed game were no quicker at categorising vehicle images, and indeed in some cases their reaction time was significantly slower."

In a separate, but connected study, the team investigated whether realism influenced the aggression of game players. Research in the past has suggested that the greater the realism of the game the more primed players are by violent concepts, leading to antisocial effects in the real world. Dr Zendle said: "There are several experiments looking at graphic realism in video games, but they have returned mixed results. There are, however, other ways that violent games can be realistic, besides looking like the 'real world', such as the way characters behave for example.

"Our experiment looked at the use of 'ragdoll physics' in game design, which creates characters that move and react in the same way that they would in real life. Human characters are modelled on the movement of the human skeleton and how that skeleton would fall if it was injured."

The experiment compared player reactions to two combat games, one that used 'ragdoll physics' to create realistic character behaviour and one that did not, in an animated world that nevertheless looked real.

Following the game the players were asked to complete word puzzles called 'word fragment completion tasks', where researchers expected more violent word associations would be chosen for those who played the game that employed more realistic behaviours. They compared the results of this experiment with another test of game realism, where a single bespoke war game was modified to form two different games. In one of these games, enemy characters used realistic soldier behaviours, whilst in the other game they did not employ realistic soldier behaviour.

Dr Zendle said: "We found that the priming of violent concepts, as measured by how many violent concepts appeared in the word fragment completion task, was not detectable. There was no difference in priming between the game that employed 'ragdoll physics' and the game that didn't, as well as no significant difference between the games that used 'real' and 'unreal' soldier tactics.

"The findings suggest that there is no link between these kinds of realism in games and the kind of effects that video games are commonly thought to have on their players.

"Further study is now needed into other aspects of realism to see if this has the same result. What happens when we consider the realism of by-standing characters in the game, for example, and the inclusion of extreme content, such as torture?

"We also only tested these theories on adults, so more work is needed to understand whether a different effect is evident in children players."

Do the colours you wear at work matter?

David Silverberg

Pennsylvania bank boss John Spier was fed up with looking like a "stuffy banker". So after decades of wearing loose-fitting pinstripe suits and anonymous ties, he decided he wanted a fashion makeover. Taking a leap of faith, Mr Spier enlisted the help of a corporate stylist Toi Sweeney. Overnight his old wardrobe was binned, to be replaced with "warmer ties and a more fitted suit", says Mr Spier. "She was able to preserve the professional look I wanted without making me seem like a stuffy banker."

Mr Spier says he went from an executive who rarely thought about what he was going to wear, to someone who likes wearing colourful ties. More importantly, he says the makeover has put a spring in his step, and made him more confident. The saying, "you never get a second chance to make a first impression" perhaps resonates most in the workplace, where bosses must exude authority but also friendliness, and the rest of us want to look professional, but stand out. Ms Sweeney believes "we are all products and your personal brand steps through the door before you do".

She may have a point. According to research from Princeton University, when we see a new face, our brains decide whether a person is attractive and trustworthy within a tenth of a second. Ms Sweeney says that the colours you wear also have a big impact on how others quickly perceive you. For example, she says red is a powerful colour that implies confidence and leadership qualities. Whereas, blue apparently connotes a warmer approach, since "it's the colour of trust and being a peacemaker".

And black can suggest authority and sophistication, but Ms Sweeney advises that it should be mixed up with a splash of colour. She recommends a bright handkerchief in a suit pocket for men, or a colourful handbag for women, so as the person can stand out from the crowd. Meanwhile, the colour brown should also not be discounted since it often suggests that the wear is reliable. "Ever wonder why United Parcel Service workers only wear brown?" says Ms Sweeney.

Kara Kurylłowicz, a 57-year-old corporate writer based in Toronto, hired a stylist last year to help modernise her look. "I thought everything I owned was fine, but she came to my place and went through my closet and threw out 80% of my clothes," she remembers. Ms Kurylłowicz says she had "a long-time love affair with black and white, but now I'm wearing more colours". "Now I'm [also] wearing more jewellery with colour, and I feel really comfortable wearing it." Her new colourful look makes her feel more "professional and confident" and has helped her to win more work, she says. While the cynical might question whether wearing a certain colour to work can really make a difference, a number of studies have actually shown that it can affect how we feel. In a report published earlier this year in the *European Journal of Social Psychology*, participants who wore red reported feeling more physically attractive and sexually receptive than those who wore blue.

Also, in a study published in the *Journal of Experimental Social Psychology*, subjects who donned white coats that they thought belonged to doctors did better on tests than those who wore casual clothes, or those who thought the coats belonged to artists. "What you're wearing affects your mood and builds your confidence. It's worth it to always dress a little better than those around you," says Toi Sweeney.

Someone who knows about dressing better, is Kim Winser, a former chief executive of the UK fashion brands Aquascutum and Pringle of Scotland. She now runs Winser London, a luxury women's fashion label which also advises clients on what to wear in the office and for overseas meetings. Ms Winser says that using colour is important, but doesn't override the overall need to look as smart and presentable as possible. "Since executives are travelling more now than ever, they want to ensure they can make a great first impression in front of clients and colleagues when they don't have their full wardrobe with them," says Ms Winser.

She also stresses the importance of polishing your shoes, especially before a job interview. "I know many interviewers who say they first look at someone's shoes, if they're scruffy or clean," she says. Though once your shoes are in good shape, she cautions there shouldn't be a hard-and-fast rule when it comes to what to wear. Instead your fashion voice will be determined by your position and company. A start-up in California will have a different dress code than a law firm in Paris, for example.

Robots will take our jobs. We'd better plan now, before it's too late

Larry Elliott

The opening of the Amazon Go store in Seattle brings us one step closer to the end of work as we know it

A new sort of convenience store opened in the basement of the headquarters of Amazon in Seattle in January. Customers walk in, scan their phones, pick what they want off the shelves and walk out again. At Amazon Go there are no checkouts and no cashiers. Instead, it is what the tech giant calls “just walk out” shopping, made possible by a new generation of machines that can sense which customer is which and what they are picking off the shelves. Within a minute or two of the shopper leaving the store, a receipt pops up on their phone for items they have bought.

This is the shape of things to come in food retailing. Technological change is happening fast and it has economic, social and ethical consequences. There is a downside to Amazon Go, even though consumers benefit from lower prices and don't waste time in queues. The store is only open to shoppers who can download an app on their smartphone, which rules out those who rely on welfare food stamps. Constant surveillance means there's no shoplifting, but it has a whiff of Big Brother about it.

Change is always disruptive but the upheaval likely as a result of the next wave of automation will be especially marked. Driverless cars, for instance, are possible because intelligent machines can sense and have conversations with each other. They can do things – or will eventually be able to do things – that were once the exclusive preserve of humans. That means higher growth but also the risk that the owners of the machines get richer and richer while those displaced get angrier and angrier.

The experience of past industrial revolutions suggests that resisting technological change is futile. Nor, given that automation offers some tangible benefits – in mobility for the elderly and in healthcare, for instance – is it the cleverest of responses.

A robot tax – a levy that firms would pay if machines were taking the place of humans – would slow down the pace of automation by making the machines more expensive but this too has costs, especially for a country such as Britain, which has a problem with low investment, low productivity and a shrunken industrial base. The UK has 33 robot units per 10,000 workers, compared with 93 in the US and 213 in Japan, which suggests the need for more automation not less. On the plus side, the UK has more small and medium-sized companies in artificial intelligence than Germany or France. Penalising these firms with a robot tax does not seem like a smart idea.

In some ways, the debate that was taking place between the tech industry, politicians and academics in Davos last week was similar to that which surrounded globalisation in the early 1990s. Back then, it was accepted that free movement of goods, people and money around the world would create losers as well as winners, but provided the losers were adequately compensated – either through reskilling, better education, or a stronger social safety net – all would be well. But the reskilling never happened. Governments did not increase their budgets for education, and in some cases cut them. Welfare safety nets were made less generous. Communities affected by deindustrialisation never really recovered. Writing in the recent McKinsey quarterly, W Brian Arthur put it this way: “Offshoring in the last few decades has eaten up physical jobs and whole industries, jobs that were not replaced. The current transfer of jobs from the physical to the virtual economy is a different sort of offshoring, not to a foreign country but to a virtual one. If we follow recent history we can't assume these jobs will be replaced either.”

The Centre for Cities suggests that the areas hardest hit by the decrease of manufacturing are going to be hardest hit by the next wave of automation as well. That's because the factories and the pits were replaced by call centres and warehouses, where the scope for humans to be replaced by machines is most obvious. But there are going to be middle-class casualties too: machines can replace radiologists, lawyers and journalists just as they have already replaced bank cashiers and will soon be replacing lorry drivers. Clearly, it is important to avoid repeating the mistakes of the past. Any response to the challenge posed by smart machines must be to invest more in education, training and skills. One suggestion made in Davos was that governments should consider tax incentives for investment in human, as well as physical, capital.

Still this won't be sufficient. As the Institute for Public Policy Research has noted, new models of ownership are needed to ensure that the dividends of automation are broadly shared. One of its suggestions is a citizens' wealth fund that would own a broad portfolio of assets on behalf of the public and would pay out a universal capital dividend. This could be financed either from the proceeds of asset sales or by companies paying corporation tax in the form of shares that would become more valuable due to the higher profits generated by automation.

But the dislocation will be considerable and comes at a time when social fabrics are already frayed. To ensure that, as in the past, technological change leads to a net increase in jobs, the benefits will have to be spread around and the concept of what constitutes work rethought. That's why one of the hardest working academics in Davos last week was Guy Standing of Soas University of London, who was on panel after panel making the case for a universal basic income, an idea that has its critics on both left and right, but whose time may well have come.

Why not regulate social media like tobacco or alcohol?

Roger McNamee

We were warned. The venture capitalist and Netscape founder Marc Andreessen wrote a widely read essay in 2011 titled “Why Software Is Eating the World”. But we didn’t take Andreessen seriously; we thought it was only a metaphor. Now we face the challenge of extracting the world from the jaws of internet platform monopolies.

I used to be a technology optimist. During a 35-year career investing in the best and brightest of Silicon Valley, I was lucky enough to be part of the personal computer, mobile communications, internet and social networking industries. Among the highlights of my career were early investments in Google and Amazon, and being a mentor to Facebook founder Mark Zuckerberg from 2006 to 2010.

Each new wave of technology increased productivity and access to knowledge. Each new platform was easier to use and more convenient. Technology powered globalisation and economic growth. For decades, it made the world a better place. We assumed it always would. Then came 2016, when the internet revealed two dark sides. One is related to individual users. Smartphones with LTE (Long-term evolution) mobile infrastructure created the first content-delivery platform that was available every waking moment, transforming the technology industry and the lives of 2 billion users. With little or no regulatory supervision in most of the world, companies such as Facebook, Google, Amazon, Alibaba and Tencent used techniques common in propaganda and casino gambling, such as constant notifications and variable rewards, to foster psychological addiction.

The other dark side is geopolitical. In the United States, western Europe and Asia, internet platforms, especially Facebook, enable the powerful to inflict harm on the powerless in politics, foreign policy and commerce. Elections across Europe and in the US have repeatedly demonstrated that automated social networks can be exploited to undermine democracy.

I am confident that the founders of Facebook, Google and other major internet platforms did not intend to cause harm when they adopted their business models. They were young entrepreneurs, hungry for success. They spent years building huge audiences by reorganising the online world around a set of applications that were more personalised, convenient and easier to use than their predecessors. And they made no attempt to monetise their efforts until long after users were hooked. The advertising business models they chose were leveraged by personalisation, which enabled advertisers to target their messages with unprecedented precision.

But then came the smartphone, which transformed all media and effectively put Facebook, Google and a handful of others in control of the information flow to users. The filters that give users “what they want” had the effect of polarizing populations and eroding the legitimacy of fundamental democratic institutions (most notably, the free press). And the automation that made internet platforms so profitable left them vulnerable to manipulation by malign actors everywhere – and not just authoritarian governments hostile to democracy.

As Andreessen warned us, these companies, with their global ambition and reach, are eating the world economy. In the process, they are adopting versions of Facebook’s corporate philosophy – “move fast and break things” – without regard for the impact on people, institutions, and democracy. A large minority of citizens in the developed world inhabits filter bubbles created by these platforms – digital false realities in which existing beliefs become more rigid and extreme.

In the US, approximately one-third of the adult population has become impervious to new ideas, including demonstrable facts. Such people are easy to manipulate, a concept that former Google design ethicist Tristan Harris calls “brain hacking”. Western democracies are unprepared to deal with this threat. The US has no effective regulatory framework for internet platforms and lacks the political will to create one. The European Union has both a regulatory framework and the necessary political will, but neither is adequate to the challenge. The EU’s recent judgment against Google – a record \$2.7bn fine for anti-competitive behaviour – was well conceived, but undersized. Google appealed, and its investors shrugged. It may be a good start, but it was clearly insufficient.

We are at a critical juncture. Awareness of the risks posed by internet platforms is growing from a small base, but the convenience of the products and psychological addiction to them are such that it may take a generation to effect change from the user side, as it did with anti-smoking campaigns. Recognition of the corrosive effect of platform monopolies on competition and innovation is greater in Europe than in the US, but no one has found an effective regulatory strategy. Awareness that the platforms can be manipulated to undermine democracy is also growing, but western governments have yet to devise a defence against it.

The challenges posed by internet platform monopolies require new approaches beyond antitrust enforcement. We must recognise and address these challenges as a threat to public health. One possibility is to treat social media in a manner analogous to tobacco and alcohol, combining education and regulation.

For the sake of restoring balance to our lives and hope to our politics, it is time to disrupt the disrupters.

The Guardian, 29 January 2018

Neurotechnology, Elon Musk and the goal of human enhancement

Sarah Marsh

At the World Government Summit in Dubai in February, Tesla and SpaceX chief executive Elon Musk said that people would need to become cyborgs to be relevant in an artificial intelligence age. He said that a “merger of biological intelligence and machine intelligence” would be necessary to ensure we stay economically valuable. Soon afterwards, the serial entrepreneur created Neuralink, with the intention of connecting computers directly to human brains. He wants to do this using “neural lace” technology – implanting tiny electrodes into the brain for direct computing capabilities.

Brain-computer interfaces (BCI) aren't a new idea. Various forms of BCI are already available, from ones that sit on top of your head and measure brain signals to devices that are implanted into your brain tissue. They are mainly one-directional, with the most common uses enabling motor control and communication tools for people with brain injuries. In March, a man who was paralysed from below the neck moved his hand using the power of concentration.

But Musk's plans go beyond this: he wants to use BCIs in a bi-directional capacity, so that plugging in could make us smarter, improve our memory, help with decision-making and eventually provide an extension of the human mind. “Musk's goals of cognitive enhancement relate to healthy or able-bodied subjects, because he is afraid of AI and that computers will ultimately become more intelligent than the humans who made the computers,” explains BCI expert Professor Pedram Mohseni of Case Western Reserve University, Ohio, who sold the rights to the name Neuralink to Musk. “He wants to directly tap into the brain to read out thoughts, effectively bypassing low-bandwidth mechanisms such as speaking or texting to convey the thoughts. This is pie-in-the-sky stuff, but Musk has the credibility to talk about these things,” he adds. Musk is not alone in believing that “neurotechnology” could be the next big thing. Silicon Valley is abuzz with similar projects. Bryan Johnson, for example, has also been testing “neural lace”. He founded Kernel, a startup to enhance human intelligence by developing brain implants linking people's thoughts to computers. In 2015, Facebook CEO Mark Zuckerberg said that people will one day be able to share “full sensory and emotional experiences” online – not just photos and videos. Facebook has been hiring neuroscientists for an undisclosed project at its secretive hardware division, Building 8.

“In my opinion, we are at least 10 to 15 years away from the cognitive enhancement goals in healthy, able-bodied subjects. It certainly appears to be, from the more immediate goals of Neuralink, that the neurotechnology focus will continue to be on patients with various neurological injuries or diseases,” he says. Mohseni says one of the best current examples of cognitive enhancement is the work of Professor Ted Berger, of the University of Southern California, who has been working on a memory prosthesis to replace the damaged parts of the hippocampus in patients who have lost their memory due to, for example, Alzheimer's disease. “In this case, a computer is to be implanted in the brain that acts similarly to the biological hippocampus from an input and output perspective,” he says. “Berger has results from both rodents and non-human primate models, as well as preliminary results in several human subjects.” Mohseni adds: “The [US government's] Defense Advanced Research Projects Agency (DARPA) currently has a programme that aims to do cognitive enhancement in their soldiers – ie enhance learning of a wide range of cognitive skills, through various mechanisms of peripheral nerve stimulation that facilitate and encourage neural plasticity in the brain. This would be another example of cognitive enhancement in able-bodied subjects, but it is quite pie-in-the-sky, which is exactly how DARPA operates.”

In the UK, research is ongoing. Davide Valeriani, senior research officer at University of Essex's BCI-NE Lab, is using an electroencephalogram (EEG)-based BCI to tap into the unconscious minds of people as they make decisions. “Everyone who makes decisions wears the EEG cap, which is part of a BCI, a tool to help measure EEG activity ... it measures electrical activity to gather patterns associated with confident or non-confident decisions,” says Valeriani. “We train the BCI – the computer basically – by asking people to make decisions without knowing the answer and then tell the machine, ‘Look, in this case we know the decision made by the user is correct, so associate those patterns to confident decisions’ – as we know that confidence is related to probability of being correct. So during training the machine knows which answers were correct and which one were not. The user doesn't know all the time.”

Valeriani notes that one of the biggest challenges with this technology is that first we need to better understand how the human brain works before deciding where and how to apply BCI. Whenever there is talk of enhancing humans, moral questions remain – particularly around where the human ends and the machine begins. “In my opinion, one way to overcome these ethical concerns is to let humans decide whether they want to use a BCI to augment their capabilities,” Valeriani says. “Neuroethicists are working to give advice to policymakers about what should be regulated. I am quite confident that, in the future, we will be more open to the possibility of using BCIs if such systems provide a clear and tangible advantage to our lives.”

'I didn't even meet my potential employers'

By Sarah Finley Technology of Business reporter

Peter Lane, a 21-year-old who graduated last summer from Cardiff University with a degree in History, is hoping to get into business consulting. He's applied for 55 jobs and secured around 15 interviews, but believes technology has hindered rather than helped his search. The interviews weren't what he was expecting. "They were all video-based screening interviews - I didn't even meet my potential employers," Peter tells the BBC. "There was no way to tell if I'd impressed them with my answers or experience as there was no human interaction."

Automated rejection letters were another issue for Peter, who is currently doing an unpaid internship at Solent's NHS Trust. "Only 10% of potential employers have given me detailed feedback," he says. "As jobseekers, we need to know where and how we can improve - whether that's with our CVs, job experience or even personality."

But this is the new world of tech-driven recruitment - and we'd better get used to it. Hiring and firing is a time-consuming and costly business, so firms are trying to automate as much of it as possible. And AI is being touted as the answer to almost every corporate recruitment prayer.

"AI helps reduce those unconscious and conscious biases in recruitment practices by removing common tendencies, like hiring those similar to you and first impressions," maintains Elle Robinson from management consultancy Kiddy & Partners. "By observing speech, tone and facial movements in filmed interviews, well-programmed algorithms can both speed up the recruitment process and more objectively determine suitable candidates based on the core criteria for a role."

The key phrase there is "well-programmed". What if the algorithms themselves are biased? "Relying on technology alone is inadequate," believes Neil Griffiths, consultant at executive search firm Korn Ferry. "Like humans, robots are not fully objective in their judgements, and have been known to exhibit the prejudice of those who have programmed them. Analysing historical data, machines can be oblivious to societal developments and crucial shifts in thinking. Consequently, a partnership of human and robot in the recruitment process ensures a more nuanced outcome."

Jobseeker websites have certainly made it easier for employers and prospective employees to find each other, and computers can sift through CVs very fast, whittling down the number of suitable applicants based on keywords associated with the job role. Computers never get tired either and are consistent in their approach - unlike humans.

"Employers don't have time to check the credibility and assess the skills of every potential candidate," says Chris Butt, founder and chief executive of Cognisess, a predictive analytics company. "Our system creates a digital profile of not just data from their CV, but their responses via assessments and video interviews. It analyses facial cues, body language and even how you speak. It then assesses whether the data collected from your CV is not only true, but also how good a fit for the role you are."

Bold claims indeed. But what if, like most of us, you're a bit nervous during the interview and not acting naturally? "The machines learn to differentiate between typical and abnormal human behaviour, so they can recognise if candidates are being nervous and they can take this into consideration and will adapt the algorithms to account for this," says Mr Butt.

But can an algorithm really know if a CV is truthful? More than a third of us have exaggerated our work experience, finds Xref, a reference checking platform, while more than a quarter mould their CVs to suit the roles they're applying for, hoping recruiters won't have time to check references.

Xref believes that the only way to tell if candidates are telling fibs is to take up those references employers usually ask for but often have no time to check properly. The Sydney-based company has taken the slow, traditionally manual process of collecting references from previous employers and streamlined it, using a secure online platform.

Technology may make hiring people faster and easier for companies, but it is not an end in itself, argues Raj Mukherjee, senior vice-president of product at jobseekers' website Indeed. The human element should not get lost in the mix. AI-powered technology gives recruiters back the time to make human connections, transforms the jobseeker experience, and ultimately, helps match talent to roles," he says.

The tamer tamed -- who wins in the Trump-Macron friendship?

Laurence Benhamou

Emmanuel Macron's state visit to Washington was always going to be a charm offensive -- aimed at winning key policy concessions from his powerful host. But after three days of back-slapping, hugs and handshakes, it was Donald Trump who appeared to have led the diplomatic dance -- while giving little ground to his French guest. While the 40-year-old Macron himself can be tactile with his guests, he often seemed wrong-footed by the eager displays of affection from the 71-year-old US president -- to the point of embarrassment.

Setting the tone, an astonishing shot of the US president dragging his fellow head of state by the hand -- as a father might a son -- made the front page of The Washington Post midway through the visit. Many observers judged the scene humiliating for Macron, the body language seeming to bode ill for France's ability to influence US policy on key areas of disagreement, most crucially Iran -- which was the stated aim of Macron's high-profile trip. The optics were the exact opposite of the impression given in May 2017, when the young French leader sparked an admiring buzz by gripping Trump in a white-knuckled handshake as they first met.

Back then the French leader played along with the temptation to read diplomatic meaning into the gesture. "You have to show you will not make small concessions, even symbolic ones" he said at the time. Fast forward to Tuesday in the Oval Office, where the US leader leaned over -- with the eyes of the world upon them -- to brush what he said was a fleck of "dandruff" from Macron's jacket. "We have to make him perfect," Trump said, drawing uneasy laughter from his guest. "He is perfect." The sequence -- replayed on loop around the globe -- provided instant fodder to late-night comedy shows who have reveled in the seeming "bromance." "The Daily Show" on Comedy Central ran a montage of their interactions -- smiles exchanged, hand brushing hand -- as a mock silent movie set to a romantic soundtrack. But their body language was also being analyzed for serious clues as to the power play.

"On this trip, Trump is the alpha -- and Macron has settled into obedience," wrote the Post in an editorial on what it dubbed "L'affaire dandruff," judging Macron to have emerged the loser of a year-long arm-wrestle for dominance. The New York Times and Germany's Der Spiegel both gave Macron more credit for investing in the much-vaunted friendship in a bid to win important concessions -- but both were doubtful of his chance for success. "Macron is using the relationship to cast himself as the leader of Europe, and restore France's place on the international stage," wrote Der Spiegel. "But it is unclear if this can have an impact on Trump." Thomas Snegaroff, a French expert on US politics and history, was just as skeptical. "For the past two days, people have been marveling at Macron's talent in figuring out that you need to endlessly flatter Trump to get your way with him," he tweeted. "My feeling is that it is the opposite."

Same message from Corentin Sellin, a French historian specialized in US politics, who observed "a subtle but growing condescension from #Trump towards president #Macron" and, in fine, a setback for the president's outreach to the United States. Observers were quick to draw the parallel with the relationship between George W. Bush and Britain's former premier Tony Blair -- who earned the moniker of "lapdog" for his efforts to woo an unpopular American leader. The New Yorker argued that Trump -- having alienated so many fellow statesman -- "makes a world leader who can forge some points of agreement with him look like less of a lapdog than an elephant tamer."

But it is a sizeable gamble for Macron, who if he ends up with little to show for his efforts, risks appearing less like an elephant tamer than a tame beast himself. The true test of this strategy, argued Sellin, will be Trump's decision on May 12 -- and whether or not he decides to walk away from the 2015 Iran nuclear deal, despite Macron's entreaties for Washington to remain on board. "If, after the hour we have spent together, the United States had said we are tearing up the agreement, while France wished to defend it, then our friendship would serve no purpose," Macron declared at the White House on Tuesday. "But we have found a way to evolve, to take into consideration what is important for each of our countries."

On the final day of his visit -- with headlines at home questioning his strategy towards Trump -- Macron appeared to course correct. Addressing the US Congress, he challenged many aspects of the "America First" agenda that has defined Trump's foreign policy, rejecting isolationism, aggressive trade tactics and inaction on climate change, and calling for the United States to renew with multilateralism. Macron's feisty speech won him plaudits from Trump's critics -- both Democrat and Republican -- and will doubtless go some way towards reassuring domestic audiences of his divergences with Trump, be it on global warming or the threat from "excessive nationalism." But while the Trump-Macron friendship has certainly left a mark on US political comedy -- regarding its effect on US policy, the jury is still out.

Death Penalty Madness in Alabama

Roger Cohen

A man suffering from cancer strapped to a gurney after spending 30 years on death row in Alabama. An intravenous team probing him, jabbing him, for hours in an attempt to find a usable vein to administer the lethal, secret drug cocktail. Going into his groin a half-dozen times, puncturing his bladder, penetrating his femoral artery. Until, a little before the midnight deadline, they abandon the botched execution with its puncture-mark traces tattooed across the man's legs and groin.

Doyle Lee Hamm, age 61, becomes one of the rare people to walk out of an execution chamber. "This was a bit of butchery that can only be described as torture," his attorney, Bernard Harcourt, tells me.

Corrections Commissioner Jeff Dunn was unmoved by the grotesque unexecution. "I wouldn't necessarily characterize what we had tonight as a problem," he said. That might just qualify, against stiff competition from the highest office in the land, as the dumbest statement of 2018.

This was an abomination foretold. Harcourt, who has been representing Hamm since 1990, had been arguing for months that Hamm's case presented an unconstitutional risk of a "cruel and unnecessarily painful execution." Hamm, convicted of the 1987 murder of a motel clerk, Patrick Cunningham, has advanced lymphatic cancer and carcinoma. He's dying. An examination in September by a doctor from the Columbia University Medical Center found that Hamm had no usable veins and that "the state is not equipped to achieve venous access in Mr. Hamm's case."

So began a macabre dance characterized by an unseemly determination to execute Hamm. The Alabama Supreme Court set an execution date late last year. U.S. Chief District Judge Karon Bowdre of the Northern District of Alabama granted a stay on Jan. 31. After an emergency appeal to the 11th Circuit Court of Appeals, that stay was vacated on Feb. 13 and a medical examination ordered.

The examination found that Hamm's arms and hands were unusable but his legs and feet, or "lower extremities," were workable. On Feb. 20, Bowdre ordered that the execution could proceed on Feb. 22. Then the 11th Circuit required that a doctor be present with ultrasound equipment. A final appeal to the Supreme Court was denied last Thursday evening, setting in motion the ghoulish proceedings.

To state the obvious, this is obscene. I won't get into the merits of Hamm's conviction here; suffice it to say there were oversights and misrepresentations. Nor will I dwell on the fact that under international law, 30 years on death row constitutes torture.

I oppose the death penalty on the ground that it's barbaric and increasingly unworkable. It's also irreversible in a world where human error is so inescapable as to disqualify such absolute judgment. Even if you are not an abolitionist, however, the Hamm case must give pause.

"This experience teaches us a deep fallacy in our justice system," Harcourt says. "When federal courts so eagerly get into the business of trying to find novel ways to execute a man, when the most august judges get their fingers bloody in this way, I think it does an injustice to justice."

Alabama has executed 61 people since the Supreme Court allowed executions to resume in 1976. United States Attorney General Jeff Sessions was long the grim reaper of Alabama, eagerly seeking executions when he was the state's attorney general. In President Trump, Sessions has a strong capital-punishment ally. Trump tweeted "SHOULD GET DEATH PENALTY" for a New York terrorist suspect in November, one of more than a dozen tweets calling for the death penalty since 2012. He has hinted strongly that he thinks the death penalty is the way to solve America's drug crisis. The president lusts for blood.

The country, however, is moving in another direction. The number of executions has fallen to 23 in 2017, from 98 in 1999. Illinois, Connecticut, New Mexico and Maryland abolished the death penalty in recent years. Over 20 companies, including Pfizer, have prohibited their products from being used for lethal injections.

Have we reached peak English in the world?

Nicolas Ostler

In China last month, Theresa May attended the launch of the British Council's "English is Great" campaign, intended to boost interest and fluency in our national language. This might sound like Donald Trump's notorious "Make America great again", but comes from a much stronger position. The use of English is far more widespread than any other language in the world. All non-English-speaking powers of our globalised world recognise it as the first foreign language; it is also, uniquely, in practical use worldwide. The British Council says English is spoken at a useful level by some 1.75 billion, a quarter of the world's population.

English is taught from primary level in all China's schools; it is the working language of the whole European Union. Its use is required of all airline pilots and control towers, 24/7. And it is seen as an essential cachet for progress in some amazing places: for example, 14 years ago, the prime minister of Mongolia – a country with no historic links to an English-speaking power – decreed it should replace Russian in all schools as part of his aspiration to make Ulaanbaatar a centre for telephone call services.

This global acceptance of English, now far beyond the zones of influence of the British empire or the United States' backyard, has effectively grown in just a century – neatly, and a little paradoxically, since the 1919 treaty of Versailles, the first international treaty written in English; but it also turned out to mark the incipient decline of the world's greatest English-speaking institution, the British empire. Linguistically, British power had the good fortune to be succeeded by its American cousin, so that the usual historic lag, as political command leads to linguistic imitation, was disguised. Even as Britain began to decline economically, its established position was reflected by increased take-up of English.

From the 1920s to the 1990s, US attention was moving from North America to the world, influencing trade, engineering, telecommunications, mining, media, science and finance as the dollar replaced sterling as the world's reserve currency. This was followed by the digital revolution, creating new fortunes in Silicon Valley at the turn of the 21st century. These were all positive for the world role of English, but should have been expected to peak later, in the growth of soft power and the increased popularity of American culture.

It is this lagged growth of English, reflecting US influence hitherto, that we are now experiencing. Yet it is happening in a 21st century when other nations, particularly in Asia but also in South America and Africa, are far outpacing the US (let alone Britain and the European Union) in economic growth rates. This is an amazing juncture in world history. And two questions arise. Is the position of English a real asset to the states that speak it natively? And is the language likely to hold this position in the pecking order indefinitely?

Considering the windfall benefits of English as one's own language, some immediate advantages are undeniable. It gives direct access to the world's principal medium of communication, as well as facilitating access for well-educated anglophones to influential jobs. It puts us in a position to charge some kind of rent for allowing others admission into this linguistic elite: the massive earnings from teaching English as a foreign language (now well over £2bn in the UK alone, reaching £3bn by 2020), and global markets for English-language publishing (£1.4bn in exports in 2015).

It is hard to credit the vulnerability of a language such as English – which has spread, unbidden and unplanned, far beyond its homeland, and is even claimed to be the "language of freedom". But this in itself is nothing new. Transnational lingua francas, once established, always give off an aura of permanence. Yet when circumstances change, they fall. And the change is clearly coming.

Something like this happened in the 17th century, when the newly global power France won a role for French as a common language for civilised Europe: French – with strong Enlightenment overtones – replaced Latin, which had held that role for 15 centuries. It is what happened in the 19th century, when the imperial interlopers Russia and Britain abolished Farsi in their Asian domains. Before that, Farsi had been pre-eminent for 800 years as the language of Muslim culture, trade and politics.

For English, therefore, its current peak is likely to be as good as it will ever get, its glory as a world language lasting just a couple of centuries – almost a flash in the pan, not yet comparable with those forerunners Latin or Farsi. And on present form, its fall is likely to coincide with the latest rise of China, whose documented history has run for three millennia. Chinese, too, is great.

Inside Amazon Go, a Store of the Future

Nick Wingfield

The first clue that there's something unusual about Amazon's store of the future hits you right at the front door. It feels as if you are entering a subway station. A row of gates guard the entrance to the store, known as Amazon Go, allowing in only people with the store's smartphone app. Inside is an 1,800-square foot mini-market packed with shelves of food that you can find in a lot of other convenience stores — soda, potato chips, ketchup. It also has some food usually found at Whole Foods, the supermarket chain that Amazon owns.

But the technology that is also inside, mostly tucked away out of sight, enables a shopping experience like no other. There are no cashiers or registers anywhere. Shoppers leave the store through those same gates, without pausing to pull out a credit card. Their Amazon account automatically gets charged for what they take out the door. There are no shopping carts or baskets inside Amazon Go. Since the checkout process is automated, what would be the point of them anyway? Instead, customers put items directly into the shopping bag they'll walk out with. Every time customers grab an item off a shelf, Amazon says the product is automatically put into the shopping cart of their online account. If customers put the item back on the shelf, Amazon removes it from their virtual basket.

The only sign of the technology that makes this possible floats above the store shelves — arrays of small cameras, hundreds of them throughout the store. Amazon won't say much about how the system works, other than to say it involves sophisticated computer vision and machine learning software. Translation: Amazon's technology can see and identify every item in the store, without attaching a special chip to every can of soup and bag of trail mix.

There were a little over 3.5 million cashiers in the United States in 2016 — and some of their jobs may be in jeopardy if the technology behind Amazon Go eventually spreads. For now, Amazon says its technology simply changes the role of employees — the same way it describes the impact of automation on its warehouse workers. “We've just put associates on different kinds of tasks where we think it adds to the customer experience,” Ms. Puerini said.

Those tasks include restocking shelves and helping customers troubleshoot any technical problems. Store employees mill about ready to help customers find items, and there is a kitchen next door with chefs preparing meals for sale in the store. Because there are no cashiers, an employee sits in the wine and beer section of the store, checking I.D.s before customers can take alcohol off the shelves.

Most people who spend any time in a supermarket understand how vexing the checkout process can be, with clogged lines for cashiers and customers who fumble with self-checkout kiosks. At Amazon Go, checking out feels like — there's no other way to put it — shoplifting. It is only a few minutes after walking out of the store, when Amazon sends an electronic receipt for purchases, that the feeling goes away. Actual shoplifting is not easy at Amazon Go. With permission from Amazon, I tried to trick the store's camera system by wrapping a shopping bag around a \$4.35 four-pack of vanilla soda while it was still on a shelf, tucking it under my arm and walking out of the store. Amazon charged me for it.

A big unanswered question is where Amazon plans to take the technology. It won't say whether it plans to open more Amazon Go stores, or leave this as a one-of-a-kind novelty. A more intriguing possibility is that it could use the technology inside Whole Foods stores, though Ms. Puerini said Amazon has “no plans” to do so. There's even speculation that Amazon could sell the system to other retailers, much as it sells its cloud computing services to other companies. For now, visitors to Amazon Go may want to watch their purchases: Without a register staring them in the face at checkout, it's easy to overspend.

Marks & Spencer admits to 12.3% gender pay gap

Josie Cox Business Editor

Marks & Spencer has admitted to paying its average female employee 12.3 per cent less than its average male worker, attributing the gender pay gap to the majority of its entry level staff being women and men still dominating the most senior ranks.

The retailer on Tuesday said that its overall workforce – of around 85,200 – is approximately 72 per cent female and 28 per cent male. Around 57 per cent of senior managers are male, however, and men also account for 70 per cent of the company’s 10-person board. It also said that significantly more women than men hold part-time roles, a key factor contributing to the gap. Only 54 per cent of all men working for Marks & Spencer do so part time, compared to 77 per cent of women.

Overall, the retailer’s pay gap is narrower than many of the other UK companies that have reported ahead of a Government-enforced requirement to do so by early April. But its chief executive Steve Rowe said that there is still more that Marks & Spencer can do to ensure equality in the workplace. He said that the latest data highlights the need to address female representation at the most senior levels of the business and the need to ensure that flexible working is as accessible and relevant to male employees as it is to female employees. He added that Marks & Spencer is committed to providing mentoring support for mid-senior women to help them progress their careers, and that in the future job adverts would encourage people to ask about flexible working from the outset. “We want to make sure everyone has the opportunity to ask about this and to show it is an important part of our culture,” he said.

The supermarket chain’s head of talent, Simmone Haywood, said that while it’s positive that Marks & Spencer’s gender pay gap is lower than the UK average, “the issues at play are complicated, and we believe it’s much more important to focus on taking meaningful action to drive equality and inclusivity rather than simply the numbers themselves”. She said that the company will continue to annually publish gender pay figures to monitor progress over the coming years.

“Most importantly, we actively encourage our colleagues’ ideas and contribution on how we can foster diversity and inclusivity in every aspect of the business,” Ms Haywood added.

Around 80 per cent of firms that have published their gender pay gap figures so far have admitted to awarding men, on average, higher salaries than women, according to the latest government figures. More than 1,000 companies have so far made their gender pay gap reports public but around 8,000 that employ at least 250 people are still required to do so by that April deadline.

Clothing chain Phase Eight is one of the companies that has so far posted the greatest gender pay gap, with an average hourly rate for women 64.8 per cent lower than that of male staff.

Late last year, the Bank of England said that its male staff were paid 24 per cent more than its female employees on average, also citing a lack of women in senior positions.

Oil giant Shell revealed a 22 per cent pay gap in November, and easyJet has said that it awards its average UK-based female employee a salary that is more than 50 per cent lower than what it pays its average male employee.

Making Dr. King a Pitchman, Turning His Words Upside Down

Editorial Board

William Bernbach, a titan of Madison Avenue who died in 1982, said, “If your advertising goes unnoticed, everything else is academic.” The spinmeisters for Ram trucks must have taken Mr. Bernbach’s admonition to heart. With a Super Bowl commercial on Sunday that used as its soundtrack a sermon delivered by the Rev. Dr. Martin Luther King Jr. 50 years earlier to the day, they got the notice they wanted. Much of the reaction, though, amounted to a richly deserved thumbs-down.

The sermon was Dr. King’s “Drum Major Instinct” speech, given in Atlanta in 1968 two months before his assassination. Everybody, he said, had this instinct — “a desire to be out front, a desire to lead the parade, a desire to be first.” But it had to be harnessed, he said as he went on to equate greatness with service to others. Ostensibly, the Ram commercial was an appeal for people to serve. But who’s kidding whom? The goal was to sell trucks, with Dr. King’s voice as pitchman.

The sheer crassness led to instant condemnation on social media, including speculation about what might be next — maybe trotting out James Baldwin to hawk “The Firestone Next Time”? Critics were hardly mollified by word that Ram had the blessing of Intellectual Properties Management, the licensor of Dr. King’s estate. The estate has not always been his staunchest guardian against posthumous commercialization.

It might serve history a tad more faithfully to note other appeals that Dr. King made in that Feb. 4, 1968, sermon. For one thing, he was appalled by the way many people went into hock to buy vehicles they couldn’t possibly afford: “So often, haven’t you seen people making \$5,000 a year and driving a car that cost 6,000? And they wonder why their ends never meet.”

While we’re at it, he also didn’t think highly of advertising gurus — “you know, those gentlemen of massive verbal persuasion.” He continued: “They have a way of saying things to you that kind of gets you into buying. In order to be a man of distinction, you must drink this whiskey. In order to make your neighbors envious, you must drive this type of car. In order to be lovely to love, you must wear this kind of lipstick or this kind of perfume. And you know, before you know it, you’re just buying that stuff.”

For that matter, Dr. King might well have been talking about a president a half-century in the future when he expounded on the need to rein in the drum major instinct, for otherwise it becomes “very dangerous” and “pernicious.”

“Have you ever heard people that, you know — and I’m sure you’ve met them — that really become sickening because they just sit up all the time talking about themselves?” he said. “And they just boast and boast and boast. And that’s the person who has not harnessed the drum major instinct.”

In the sermon’s finale, Dr. King said that he thought about his own death and funeral. It led to these ringing words: “If you want to say that I was a drum major, say that I was a drum major for justice. Say that I was a drum major for peace. I was a drum major for righteousness. And all of the other shallow things will not matter.”

He did not ask to be a huckster for a line of trucks.

Bill Gates: Microsoft founder 'naïve' to say cryptocurrency 'kills people'**Jason Murdock**

Microsoft founder and billionaire philanthropist Bill Gates is “naïve” to suggest that cryptocurrencies like bitcoin can kill people, experts have said. In a Reddit Ask Me Anything (AMA) session on Thursday, February 28, the 62-year-old claimed that the anonymity provided by virtual currency was being exploited by criminals, terror groups and tax avoiders to evade being tracked by law enforcement and sell lethal cocktails of illegal drugs. His comments resulted in uproar from the cryptocurrency community on social media and quickly topped the sections of Reddit dedicated to the topic. Despite the criticism, the volatile bitcoin remained valued at around \$10,500 per coin Wednesday, according to *CoinDesk*.

Responding to a question about his thoughts on the digital money, Gates said: “The main feature of cryptocurrencies is their anonymity. I don't think this is a good thing. The government’s ability to find money laundering and tax evasion and terrorist funding is a good thing. Right now cryptocurrencies are used for buying fentanyl and other drugs so it is a rare technology that has caused deaths in a fairly direct way.” He also spoke out about Initial Coin Offerings (ICOs), used by fintech startups to raise money in a crowdfunding-like manner. “I think the speculative wave around ICOs and cryptocurrencies is super risky for those who go long,” Gates wrote.

Experts working in the field, unsurprisingly, were not amused. Venture capitalist Anthony Pompliano was one of many to make the point that crypto transactions are not always anonymous and that the dollar is also linked to crime. “He spewed the normal nonsense about funding terrorism & money laundering,” he tweeted. “I’m starting to think the criteria for being old and rich is hating crypto.”

Is Gates right? Charles Hayter, CEO of CryptoCompare, told *Newsweek* the comments were “true to an extent but slightly naïve.” He said: “Naturally, cryptocurrencies were given their first utility in the dark markets. That trend is declining with the majority of business now legitimate. The dollar has had its fair share of direct deaths too and will continue to do so. We have to look beyond these initial trials and tribulations towards the potential for a dimensionless value transfer system.

At one point, Gates appeared significantly more enthusiastic about the potential of bitcoin. He told *Bloomberg* in 2014 it was “exciting” because it was cheap. He said: “It is better than currency in that you don't have to be physically in the same place.” Even then, however, he suggested that it had murky ties to crime. To claim that cryptocurrency could have already directly led to deaths is a bold claim but Bill Gates is almost certainly correct with his assertion,” Lee Munson, security researcher at Comparitech, told *Newsweek* via email Wednesday. “Via the Dark Web, virtual coins have become the de-facto means of payment for not only drugs, but also a wide range of weapons which can safely be assumed to have fallen into the hands of people who wouldn’t otherwise be able to source them. Though it should be pointed out that the people behind them could have used alternative currencies if the virtual kind was not already in existence.”

Since 2015, Microsoft has been working on blockchain technology, the foundation of cryptocurrency which stores records of transactions, with its customers. It supports a number of industry bodies, including R3, Enterprise Ethereum Alliance, and IC3. For his part, Gates stepped down from his role as chairman of Microsoft in 2014. He is currently co-chair of the Bill & Melinda Gates Foundation, a charitable organisation, and boasts a net worth of more than \$90 billion, according to *Forbes*. Last year, as the popularity of bitcoin spiked to unprecedented levels, JPMorgan CEO Jamie Dimon branded bitcoin a “fraud”, a comment he has since said he regrets making. The banking chief faced swift backlash after claiming that bitcoin was only useful to drug dealers, murderers and people in North Korea. He warned: “Someone is going to get killed.”

Walkable cities reduce blood pressure and hypertension risk, study finds

Elle Hunt

Research finds significant link between the walkability of a city and the blood pressure and hypertension risk of the people who live there

The largest-ever study of the link between city walkability and blood pressure has been held up as evidence of the “intangible value of urban design” in improving long-term health outcomes, say researchers. The study of around 430,000 people aged between 38 and 73 and living in 22 UK cities found significant associations between the increased walkability of a neighbourhood, lower blood pressure and reduced hypertension risk among its residents. The outcomes remained consistent even after adjustments for socio-demographic, lifestyle and physical environment variables, though the protective effects were particularly pronounced among participants aged between 50 and 60, women, and those residing in higher density and deprived neighbourhoods.

The paper was published in the *International Journal of Hygiene and Environmental Health* this week. With hypertension a major risk factor for chronic and particularly cardiovascular diseases, researchers at the University of Hong Kong and Oxford University said the findings demonstrated the need for public health interventions to factor in urban design. “With the increasing pace of urbanisation and demographic shifts towards an ageing population, we become more vulnerable to chronic diseases,” said Dr Chinmoy Sarkar, an assistant professor at the Healthy High Density Cities Lab of the University of Hong Kong and lead author of the study. “Public health interventions must consider the intangible value of urban planning and design. “We are spending billions of pounds in preventing and curing cardiovascular diseases – if we are able to invest in creating healthy cities through small retrofits in the design of our neighbourhoods to make them more activity-friendly and walkable, then probably, we will have significant savings in future healthcare expenditures.”

To measure a neighbourhood’s activity-promoting potential, researchers developed a composite index of walkability comprising relevant urban metrics, including residential and retail density, public transport, street-level movement, and proximity to attractive destinations. Poorly designed spaces generally inhibited walking and physical activity, promoting sedentary lifestyles; and were detrimental to social interactions, and as such associated with poorer mental health and wellbeing. Because walkability was “based on the underlying design of the city”, said Sarkar, cities could be modified or designed to encourage it. “Such investments in healthy design are likely to bring in long-term gains as they are enduring and all-pervasive.”

The study’s large and diverse dataset also presented an opportunity to examine the effects of walkability on blood pressure of specific subgroups of people which, Sarkar said could yield valuable insights into how to manage demographic changes. He singled out the world’s growing urban population, with more than half (54.5%) of the total population currently living in cities. That figure is expected to rise to 60% by 2030, with one in three living in cities with at least half-a-million inhabitants.

In the UK alone more than 7 million people are estimated to be affected by cardiovascular disease, which accounts for nearly 160,000 deaths annually and £19bn in health costs. Designing and retrofitting cities to promote active lifestyles could therefore have significant repercussions for the health of urban populations and governments’ related expenditure around the globe, said Sarkar. “Well-designed cities of today will be healthy cities of tomorrow.”

Zimbabwe invites exiled white farmers to return **Aislinn Laing**

White farmers in Zimbabwe have been thrown a lifeline by the country's new government, offering hope to those who live in fear of losing their livelihoods and raising the prospect of a new era in the shattered country. The country's new agriculture minister, Perence Shiri, told the white farmers, many of whom struggled under the recently deposed Robert Mugabe, that they would be offered 99-year leases over their land.

The leases would replace the five-year renewable leases introduced by Mugabe after the violent land reform of the 2000s which brought the agriculture-dominated economy of the former "Breadbasket of Africa" to its knees. Emmerson Mnangagwa, the new president who unseated Mr Mugabe in November after a soft coup, has said that he wants white farmers forced out of the country to return and to help to rebuild the economy with foreign investors and other donors. Among those cautiously considering a return is Dave Joubert, 69, who used to run a wildlife conservancy on 30,000 hectares in Matabeleland, western Zimbabwe. He now owns a butchery wholesaler in Howick, in neighbouring South Africa.

He said that his adult children, a son and a daughter, were eager to resurrect the family business, which they abandoned without even taking their furniture 15 years ago. "My own feeling on it is inspired not so much in the determination to be back there but the realisation that what we had there is national heritage, and we're going to lose it if we're not careful," he said. "The fact my children are willing to consider that process makes it worth thinking about." He said that he respected President Mnangagwa, whom he knew personally, as a "very bright" man, adding: "If there's anyone who could make the changes it could be him." However, he and others fear that Mr Mnangagwa is hamstrung by the generals who put him in power and hold key portfolios in his cabinet, along with the factional fighting within Zanu-PF that led to the ousting of Mr Mugabe. Mr Joubert also pointed out that the longer farming leases held no legal weight until the change was reflected in Zimbabwe's constitution.

Others are more optimistic that Mr Mnangagwa can see the plan through. Craig Follwell is a dairy farmer in the Midlands province, President Mnangagwa's home region. He said he had heard that the new president had stepped in to prevent other white farmers from being forced out in the area. "As far as I am concerned, it brings security and the farmer will work without worries of being kicked off the farm," he said. The announcement has been broadly welcomed by white farmers' groups despite a mistrust borne of years of poor relations with the government.

Ben Gilpin, director of the Commercial Farmers Union, said it could benefit 200 farmers who remained on their land, but added that he wanted more clarity on the government directive. "It is a positive development," he said. "It appears there would be a change in policy and there would be no discrimination. We are waiting to see how this will work in reality."

David Coltart, a senior opposition politician, said that some farmers seeking to take up the offer had been told they were not on the "list" of those entitled to the longer leases. "We obviously have to see the 99-year leases to see if they are bankable," he said. "It's important that banks are satisfied enough with them to give loans for infrastructural development."

California Scraps Safety Driver Rules for Self-Driving Cars

Daisuke Wakabayashi

SAN FRANCISCO — California regulators have given the green light to truly driverless cars.

The state's Department of Motor Vehicles said Monday that it was eliminating a requirement for autonomous vehicles to have a person in the driver's seat to take over in the event of an emergency. The new rule goes into effect on April 2.

California has given 50 companies a license to test self-driving vehicles in the state. The new rules also require companies to be able to operate the vehicle remotely — a bit like a flying military drone — and communicate with law enforcement and other drivers when something goes wrong.

The changes signal a step toward the wider deployment of autonomous vehicles. One of the main economic benefits praised by proponents of driverless vehicles is that they will not be limited by human boundaries and can do things like operate 24 hours in a row without a drop-off in alertness or attentiveness. Taking the human out of the front seat is an important psychological and logistical step before truly driverless cars can hit the road.

“This is a major step forward for autonomous technology in California,” said Jean Shiomoto, director of California's D.M.V. “Safety is our top concern and we are ready to begin working with manufacturers that are prepared to test fully driverless vehicles in California.”

While most of the companies leading the race for driverless cars are based in California, some have started testing autonomous vehicles in Arizona, where the state government has taken a more hands-off approach to the technology. Arizona has not created regulations for autonomous vehicles.

Waymo, the self-driving car unit of Google's parent company, Alphabet, started testing autonomous vehicles without safety drivers on Arizona roads in October. Since then, it has picked up passengers in driverless vehicles and it plans to start a ride-hailing service without human drivers later this year.

Uber has also deployed autonomous vehicles in Arizona, but it uses safety drivers in those cars. “This is a significant step toward an autonomous future in the state, and signals that California is interested in leading by example in the deployment of autonomous vehicles,” Sarah Abboud, an Uber spokeswoman, said in a statement.

John M. Simpson, a director for Consumer Watchdog, a frequent critic of Alphabet's self-driving car initiative, said the new rules will threaten highway safety as remote operators try “to control the robot car from afar.” He said the oversight will turn driving these vehicles into a video game “except lives will be at stake.”

California requires companies to report the number of “disengagements,” or instances when human drivers are forced to take over for the autonomous vehicle. Waymo had the fewest number of disengagements — based on a per mile basis — of all the companies testing cars on California roads. Between December 2016 and November 2017, Waymo's self-driving cars drove about 350,000 miles and human drivers intervened 63 times — or about 5,600 miles between every disengagement. Over the last few years, Waymo has made steady progress in reducing the instances when people need to retake the wheel.

A Future Perfect. Steven Pinker's case for optimism

To anyone who reads a newspaper, this can seem a miserable world. Syria is still at war. Another lunatic has gone on a gun rampage in an American school. The tone of political debate can rarely have been as crass and poisonous as it is today. Front pages are grim for the same reason that Shakespeare's plays feature a lot of murders. Tragedy is dramatic. Hardly anyone would read a story headlined "100,000 AEROPLANES DIDN'T CRASH YESTERDAY". Bad things often happen suddenly and telegenically. A factory closes; an apartment block burns down. Good things tend to happen incrementally, and across a wide area, making them much harder to film. News outlets could have honestly reported that the "NUMBER OF PEOPLE IN EXTREME POVERTY FELL BY 137,000 SINCE YESTERDAY" every day for 25 years. But readers might get bored.

Negative news is one reason why people consistently underestimate the progress humanity is making, complains Steven Pinker. To discern the true state of the world, he says, we should use numbers. In "Enlightenment Now", he does just that. The result is magnificent, uplifting and makes you want to rush to your laptop and close your Twitter account. The world is about 100 times wealthier than 200 years ago and, contrary to popular belief, its wealth is more evenly distributed. The share of people killed annually in wars is less than a quarter of that in the 1980s and half a percent of the toll in the second world war. During the 20th century Americans became 96% less likely to die in a car crash, 92% less likely to perish in a fire and 95% less likely to expire on the job.

Mr Pinker's best-known previous book, "The Better Angels of Our Nature", showed that humankind has grown less violent. His new one demonstrates that steady, cumulative progress is occurring on many fronts. For this he credits the values of the 18th-century Enlightenment, summarised by Immanuel Kant as "Dare to understand!" By applying reason to problems, people can solve them—and move on to the next. Trade and technology spread good ideas, allowing rich countries to grow richer and poor ones to catch up. Progress has often been stunningly rapid. The vast majority of poor Americans enjoy luxuries unavailable to the Vanderbilts and Astors of 150 years ago, such as electricity, air-conditioning and colour televisions. Street hawkers in South Sudan have better mobile phones than the brick that Gordon Gekko, a fictional tycoon, flaunted in "Wall Street" in 1987. It is not just that better medicine and sanitation allow people to live longer, healthier lives, or that labour-saving devices have given people more free time, or that Amazon and Apple offer a dazzling variety of entertainment to fill it. People are also growing more intelligent, and more humane.

In every part of the world IQ scores have been rising, by a whopping 30 points in 100 years, meaning that the average person today scores better than 98% of people a century ago. How can this be, given that intelligence is highly heritable, and clever folk breed no more prolifically than less gifted ones? The answer is better nutrition and more stimulation. Children are far likelier to go to school than they were in 1900, while "outside the schoolhouse, analytic thinking is encouraged by a culture that trades in visual symbols (subway maps, digital displays), analytic tools and academic concepts that trickle down into common parlance (*supply and demand, on average, human rights*)."

Mr Pinker contends that this braininess has moral consequences, since people who can reason abstractly can ask: "What would the world be like if everyone did this?" That is consistent with the observable spread of Enlightenment values. Two centuries ago only 1% of people lived in democracies, and even there women and working-class men were denied the vote. Now two-thirds of people live in democracies, and even authoritarian states such as China are freer than they once were. Many readers will find this bubbly optimism hard to swallow, like too much champagne. We may be materially richer, some will protest, but aren't we less happy because we know that others have even more? We may have supercomputers in our pockets, but aren't they causing an epidemic of loneliness among the young? And what about global warming or North Korea's nuclear missiles?

Mr Pinker has answers for all these questions. In 45 out of 52 countries in the World Values Survey, happiness increased between 1981 and 2007. It rises roughly in line with absolute income per head, not relative income. Loneliness, at least among American students, appears to be declining. Global warming is a big threat, but not insurmountable. The number of nuclear weapons in the world has fallen by 85% since its peak. The rise of populism challenges Mr Pinker's thesis. Without downplaying the risks, he remains optimistic. The checks and balances that populists decry are reasonably effective in most rich countries and will outlast the current crop of demagogues. Supporters of populism will become disillusioned, or will simply die off. Mr Pinker draws especial comfort from the decline of faith. Worldwide, although 59% of people are religious, that share has fallen from nearly 100% a century ago. As people grow richer, he argues, they abandon the crutch of belief and rely more on reason.

Pessimism has its place—it fosters caution. And the human instinct to focus on problems is sound—it means they often get fixed. Nonetheless, Mr Pinker's broad point is surely right. Things are not falling apart. And barring a cataclysmic asteroid strike or nuclear war, it is likely that they will continue to get better.

Older Phones, Spiffed Up, Get Their Mojo Back

By Timothy W. Martin and Drew FitzGerald

The smartphone industry has a culprit to blame for slumping sales: Its old devices remain too popular. Flashy phones of yesteryear, particularly Apple Inc.'s iPhones and Samsung Electronics Co.'s Galaxy S handsets, are getting refurbished, and U.S. consumers are snapping them up. Many shoppers are balking at price tags for new phones pushing \$1,000, and improvements on latest launches in many cases haven't impressed. As more people hold on to devices longer, new smartphone shipments registered a historic decline at the end of 2017.

"Smartphones now resemble the car industry very closely," said Sean Cleland, director of mobile at B-Stock Solutions Inc., the world's largest platform for trade-in and overstock phones, based in Redwood City, Calif. "I still want to drive a Mercedes, but I'll wait a couple of years to buy the older model. Same mentality." Another trend borrowed from the car industry that has helped consumers get around sticker shock: leasing. Instead of buying new phones, Sprint Corp. and T-Mobile US Inc. allow subscribers to effectively lease them, enabling them to trade up for the latest device. That option, though, hasn't yet gone mainstream.

Refurbished phones represent the fastest-growing segment of the global smartphone industry, accounting for nearly one out of every 10 devices sold, according to Counterpoint Technology Market Research, which tracks device sales. Overall smartphone shipments hit 1.6 billion last year, Counterpoint said. The older phones, which can sell for several hundred dollars, sap some of the demand for brand-new devices, which deliver the biggest profits. A premium handset today is likely to have three, if not four, different owners before it eventually gets tossed, according to industry executives and resellers. Secondhand phones long ago found their way to Africa, India and other developing markets. But now, U.S. buyers represent 93% of the purchases made at secondhand-phone online auctions run by B-Stock, compared with an about-even split between the U.S. and the rest of the world in 2013. Samsung and Apple together sell more than one out of every three phones globally and capture about 95% of the industry's profits. U.S. consumers, spurred by two-year carrier contracts and phone subsidies, were upgrading every 23 months as recently as 2014, according to BayStreet Research LLC, which tracks device sales. Now, people are holding on to their phones for an extra eight months. By next year, the time gap will widen to an estimated 33 months, BayStreet said.

Device makers don't lose out completely when older phones pass through several hands. For Apple, more iPhone users from the price-conscious crowd translate into more revenue for its fast-growing services arm, including the App Store and its music and payment services. Apple has faced U.S. and European government investigations in recent months over the slowed performance of older iPhones. The company has repeatedly said it would never intentionally shorten battery life or degrade devices' user experience. It has since slashed replacement-battery prices. Apple Chief Executive Tim Cook, during an earnings call on Feb. 1, said the secondary market has expanded in recent years and that the iPhone's reliability has generally been "fantastic."

In a recent interview, D.J. Koh, Samsung's mobile chief, said the growing popularity of secondhand phones has Samsung rethinking whether to adjust its broad portfolio strategy. Though nothing has been decided, Samsung in certain markets is weighing whether to push refurbished flagship devices more aggressively over new releases of lower-cost phones, Mr. Koh said. A quarter of U.S. consumers sold their smartphones after upgrading to a new device in 2017, the highest rate in the world, according to Deloitte. That has created ample supply for consumers like Alan Earl, a 40-year-old digital marketer from Phoenix. He recently bought himself a refurbished iPhone 6S for \$350, even though he gets new iPhones for his two children and wife when they are due for upgrades. He didn't care for the iPhone X's edge-to-edge display and wasn't interested in its facial recognition features. Mr. Earl said he just needs his phone to text, call, check social media and listen to music. "I don't feel like I'm missing out," he said. "I don't need any more phone than what I've got."

Steep prices for new phones are a significant reason for the refurbished industry's growth, said Remon Gazal, chief commercial officer at wireless distributor Brightstar Corp., which specializes in trade-in distribution. "Now, my phone costs more than my laptop," Mr. Gazal said. Smartphones had roaring double-digit growth until the past two years. In 2017, new smartphone shipments rose just 2.7%, according to Gartner Inc., a market researcher. In the final three months, shipments declined for the first time in the industry's history. Phone makers had expected that they could compensate for slowing volume by pushing up prices. But customers balked. "It's the worst-case scenario now," said CK Lu, a Gartner research director. "Now the phones are maybe too expensive."

Love revolution: The Real Force for Mideast Change,

Ralph Peters

Something momentous happened in the Middle East last week and it didn't involve war or fanaticism: Saudi Arabia let its citizens celebrate Valentine's Day. For years hardline clerics there condemned V-Day, and happiness in general, as poisonous to Islam and a Western snare. Last year, the religious police were throttled back a bit, but this Feb. 14 no one interfered with the commerce of mushy cards and overpriced flowers. This is the first truly telling sign that, against all odds, positive change may be possible in the Kingdom. Yes, women are to be allowed to drive in the future. Public harassment by state organs has been reduced. Women can attend some sporting events. And the new crown prince has sponsored a crackdown on corruption. But it's a simple display of affection, of loving respect between two human beings, that could shift history.

To some American feminists, who see Valentine's Day as anathema, this may sound repugnant and backward. But to enjoy the right to reject something, you first have to possess it. What might seem patriarchal elsewhere represents a significant breaking of chains. Roses for Rana from Riyadh? Countless thorns remain, but this slight liberalization of human interactions in the most repressive society on Earth is a glimmer of hope. If the Middle East has a worthy future, a tomorrow in which life is decent or at least bearable, the women of the region may be the key. In Iran, already far less restrictive than Saudi Arabia, women have been at the fore of demonstrations for reform, and brave individuals, in public and online, have cast off their headscarves and chadors. This too may seem a minor thing, but it takes a great deal more courage to defy the Tehran regime and face imprisonment, than it does to march down a safe American street in a pink pussy cap. A glaring weakness of American feminism has been its exclusive nature: It's been a movement for the already privileged. Our feminists have done much good and made important gains, but usually for their sisters from Harvard or Berkeley. Well-educated feminists don't move to Appalachia to stand beside diabetic moms on food stamps. And the plight of foreign women largely goes ignored.

The #MeToo movement is long, long overdue (personally, I'd go full medieval dungeon on men who inflict violence, sexual on women). Shame those bastards. But the fight has to be global and not parochial. Meanwhile, women in the Middle East literally fight for their place in society. Women on the barricades? You bet! Female Kurdish fighters have been on the front lines, dying in combat to build a better world. In Pakistan, courageous women and girls struggle for elementary human rights, for education and safety from abuse. In doing so, they risk death. Their valor should shame us. Yes, the Islamabad government sanctions terrorism against our troops, but it also tolerates quieter terror toward a hundred million women within its borders, disgracing its religion. In Egypt, recipient of major US aid, proponents of women's rights face violence, imprisonment, kangaroo courts and worse. But they won't quit. Can we name a single one of them?

As more bombs fall in Syria and terror ravages much of the Middle East, we're missing what may be the most powerful shift in the region's history: the slow recognition that women are as fully human as men. Our own progress has been imperfect, but it's real. In the lifetimes of many readers, American women have gone from being condemned to a handful of professions (teaching, nursing, secretarial work) to flying combat jets and leading multinational corporations. In historical terms, the velocity of change has been astonishing, even if it seemed slow to those living through it. Our wealth today has many sources, but a primary factor behind our power and prosperity has been the transition of one-half of our population to full employment rights. We doubled our human capital. The math of success ain't hard. The Middle East has a much longer way to go than did Western social orders, but the current examples of women's valor in the region should inspire us. Men overthrow governments, but women change societies. And if Saudi Arabia can begin to change for the better, there really is hope. One day, humanity may look back in wonder that, for all the bombs that fell in the Middle East, the real agent of change was a Valentine's card.

The Trump Tariffs Will Cost Americans Jobs

By Veronique de Rugy

On the campaign trail, Candidate Trump promised to drain the swamp in Washington. Last Thursday, the swamp showed how powerful it really is. In a sort of crony-capitalist reality TV broadcast, President Trump, flanked by steel and aluminum executives, granted their requests for tariffs. The announcement itself — which outlined a plan for 25 percent tariffs on steel and 10 percent on aluminum — was no surprise. Last summer, consistent with his longstanding hostility to free trade and globalization, the president exclaimed, “Tariffs, I want tariffs.” Mr. Trump, in the White House, summoned steel and aluminum tycoons for a “listening session.” It wasn’t the first time some of America’s top executives came hat in hand to Washington in search of privileges. But it may have been the first time we got to watch live as an American president announced to the world that he would gladly help handicap our domestic producers’ foreign rivals — by taxing the Americans who buy steel and aluminum imports.

Mr. Trump and other protectionists justify tariffs by proclaiming that they will protect American workers from highly subsidized Chinese companies that sell their steel and aluminum at low prices in the United States market. Never mind that we import more steel from 10 other nations than from China, or that domestic steel’s market share represents an impressive 70 percent. Nor is it a national security issue: Only 3 percent of that production goes toward the military. Never mind that domestic steel profits and production have steadily risen since 2010, or that we already have more than 160 special duties on steel imports in place. These moguls demanded more protection and obtained satisfaction.

Decades ago, the Nobel Prize-winning economist Milton Friedman argued that businessmen themselves are among the biggest dangers to a free-market economy. They often seek government privileges to increase their profits and avoid competition. Indeed, import taxes — putting aside rhetoric about defending jobs — are well-known to have devastating effects on consumers. They are quite effective at lining the pockets of shareholders in protected industries. We’ve seen this before. In 2002, President George W. Bush implemented his own steel tariffs. As expected, the taxes jacked up the price of domestic steel and temporarily boosted the industry’s profits. Steel-consuming industries, however, weren’t so lucky. According to an estimate from the nonpartisan Trade Partnership Worldwide, a staggering 200,000 people lost their jobs in downstream industries by the following year. That’s more workers than the entire steel industry had at the time. According to the United States International Trade Commission, other serious consequences of the tariffs included difficulties obtaining steel in the quality and quantity desired, a shift to sourcing finished parts from overseas, and relocating domestic steel-consuming facilities abroad. Does that sound like what’s best for American workers and consumers?

Instead of bringing jobs back to America and fighting off imports, the tariffs led to more jobs shipped abroad and more imports of final, rather than raw, goods. In other words, if your company uses steel to make pipes or refrigerators, you may decide to simply produce your own products abroad rather than paying artificially inflated prices on steel in order to make them in the U.S.A. Senator Lamar Alexander, Republican of Tennessee, recently reminded the president of the negative impact of the 2002 import taxes. Mr. Trump dismissed it as a byproduct of the Bush administration’s incompetence. But this president doesn’t have the power to change the laws of economics. Like President Bush, Mr. Trump will raise the cost of doing business in steel- and aluminum-consuming companies. In turn, it will make life much harder for the 6.5 million workers those industries employ. Many will lose their jobs — possibly more than the 170,000 workers currently employed in the steel and aluminum producing industries. Adding insult to injury, the president is comfortable with the knowledge that his import tax will make our cars, infrastructure, soda cans and aircraft more expensive.

And he’s flat-out wrong when he claims, “Maybe it’ll cost a little bit more, but we’ll have jobs.” As the Department of Commerce’s own report shows, the decline of jobs in the steel and aluminum industries predates the competition with China by decades. Industry experts know that this is mostly because of innovation and industry consolidation. The era of labor-intensive metal production is over. And Mr. Trump may think a tariff-induced trade war would reduce our trade deficits, as he gleefully tweeted the day after the announcement, but don’t count on it. In the unlikely event that the import tax would incentivize foreign companies to set up shop in the United States, these investments would very likely increase the United States trade deficit. It would prompt foreigners to buy fewer American exports in order to accumulate the dollars needed to fund these investments. No one doubts that Beijing doles out special privileges to Chinese exporters, but the way to answer Chinese cronyism isn’t to expand American cronyism. Chinese cronyism comes at the expense of other Chinese producers and consumers. We shouldn’t imitate their behavior by hurting our own consumers. A better path forward is to allow the World Trade Organization to settle the dispute or go back to the Trans-Pacific Partnership’s negotiating table. It’s been done before, and it can be done again.

Licence to kill competition: America should get rid of oppressive job licensing

Leaders

SOME rush to blame free markets for America's income inequality and its lack of social mobility. Among rich Western countries, America is where the top 1% of earners have become most detached from their compatriots. Yet those who blame this on unfettered competition or globalism run wild in the home of capitalism ignore an awkward fact. Far from being laissez-faire, America's labour markets are grossly over-regulated by state governments. The resulting lack of competition drives up earnings—especially for the most exclusive professions, including medicine and the law. That is a tax on everyone else.

Fully 22% of American workers must hold licences simply to do their jobs, up from just 5% in 1950. Bartenders must have licences in 13 states; manicurists are licensed everywhere but Connecticut. Louisiana licenses florists. Licences make it harder to enter a profession. Not everyone can afford to pay a registration fee or take time to study for an exam before being allowed to pull pints or paint nails. The beneficiaries from such barriers to entry are incumbent workers, whose wages rise when competition is chilled. For unskilled workers this rise is only 4-5%. By contrast, licensing raises the incomes of the highest earners by as much as a quarter. Doctors, dentists and lawyers all benefit from rules preventing lower-skilled competitors from providing even basic services.

These rules are promulgated in the name of consumer protection. But tasks like issuing some prescriptions or drafting routine legal documents rarely require years of expensive postgraduate education. They may even be done better by a specialist who has fewer formal qualifications. The evidence from states where highly trained nurses can operate freely suggests that they provide just as good primary care as doctors do. Yet more than half of states restrict their practice, often requiring them to operate under supervision from doctors, who, naturally, charge a hefty fee for the privilege.

Some labour-market regulation makes sense. When buyers cannot easily judge quality, the state may need to step in. But there are pitfalls. Because lawmakers also lack the expertise to judge who can safely perform, say, a dental procedure, they often ask professions to regulate themselves. Inevitably, state bar associations charged with deciding what tasks should count as “practising law” tend to shut out non-lawyers. There are better ways to help consumers. The government can issue qualifications and titles—“accredited interior designer”, say—but leave consumers to decide whether such diplomas are a valuable signal of quality. This works well in finance, where many optional qualifications are available (think “chartered financial analyst”).

Or the government can use inspections instead of licences. Which is better: requiring cooks and waiters to take a government-designed training course, or once in a while checking that restaurants are clean? Inspections can tie in with credentials, as when restaurants receive health-and-safety certificates to display to customers.

Market forces are often best of all, in spite of information asymmetries. Brain surgery may be complex, but it is unlicensed, beyond the need for surgeons to have medical degrees. In Britain anyone can provide legal advice outside the courtroom. People tend to make better choices for themselves than governments, more so in a world of online reviews and price-comparison websites. The state should favour the flow of information by requiring transparent contracts. If buyers are exploited, they should have recourse through the courts.

Milton Friedman said that you can tell who benefits from licensing by watching who lobbies for it—and rarely is that consumers. Letting professions wield the power of government against potential competitors is foolish and costly. When licensing is inevitable, regulators should aim to promote competition as well as protect consumers. Licensing run amok not only poisons markets, it also poisons sentiment towards markets that misfire. States should sweep away the rules, so that America really can be the home of free markets.

Comparing the brain activity of jazz and classical pianists

Prospero

A new study argues that musicians' brains work differently depending on their chosen genre—even when playing the same piece of music

IT DOESN'T take a musical genius to recognise the differences between performances by Arthur Rubinstein and Duke Ellington. They were both prominent pianists in the 20th century but were known for two distinct genres. While the upbeat swing of Ellington's "It Don't Mean a Thing (If It Ain't Got That Swing)" is the epitome of jazz, Rubinstein and his world-renowned recordings of nearly every work by Frédéric Chopin have a special place in the classical world. But it appears the differences between these musicians may have actually extended beyond their scores and into their brains.

New research from the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig, Germany, shows that jazz and classical musicians' brain activity is different—even when they're tackling the same score. In a sense, it comes down to different priorities, dictated by a musician's native genre. While the improvisation in jazz requires a focus on harmonies and being comfortable adapting to unexpected musical changes, classical musicians learn to emphasise technique so that they can perform music as the composer intended.

The team of researchers monitored the brains of 15 jazz pianists and 15 classical pianists as they copied a chord progression broadcast onto a screen in front of them. But there were two key twists. Any given chord progression could include unusual harmonies and/or unexpected finger placements. "With all these conditions, we could compare the brain signals evoked by playing the irregular harmony or irregular fingering with the signal evoked by playing correct chords (used as a baseline)," explained Roberta Bianco, one of the authors of the study.

Using EEG sensors to record the brain's electrical activity, the researchers discovered that when faced with an unexpected order of the chords, the classical pianists experienced an increase in their brains' theta-band activity, a type of electrical brain wave, which typically happens when someone is faced with conflict. The conflict reaction appeared to delay their playing compared with the jazz pianists, whose brains were able to reprogram quickly to play the requested chord. Ms Bianco says the reason may be because the jazz pianists were used to harmonic surprises and could adjust their thinking and play without hesitation. "They were kind of ready to play anything, while classical pianists would definitely expect a tonic chord at the end," she says.

Alternatively, the classical pianists made fewer mistakes compared with their musical peers when matching the peculiar finger placements on the chords, likely due to them focusing on this aspect of performance. The researchers discovered neural evidence (indicated through a decrease in beta oscillations, another type of electrical brain wave, which typically happens when the brain considers an action erroneous) that the classical pianists were paying more attention to the fingering, while the jazz pianists were paying more attention to the harmonies. While the oscillations decreased for jazz pianists during harmonic irregularities, it decreased for classical pianists during fingering irregularities, indicating they were each focused on these different aspects and thus more sensitive to violations in them.

The study states: "These findings demonstrate that specific demands and action focus of training lead to differential weighting of hierarchical action planning. This suggests different enduring markers impressed in the brain when a musician practices one or the other style." In fact, even after the experiment was completed, Ms Bianco says there were differences in the way the musicians informally reacted to it. While some jazz players made an offhanded comment about the irregularities in the harmony, some classical musicians remarked on the odd finger placements.

There have been multiple reports documenting how musical training impacts brains, boosting everything from memory and problem solving to the ability to regulate behaviour. But the fact that training in different genres results in a different musical brain clarifies just how distinct these musical styles are, and why it is the rare musician who tackles classical and jazz in the same programme. In a 1997 article in *Piano and Keyboard* magazine, jazz pianist Keith Jarrett was asked if he'd consider doing a concert with both jazz and classical music. He replied: "No, that's what I think is hilarious. I mean that is true insanity."

A prize for thrillers with no violence against women? That's not progressive

By Sophie Hannah

Ignoring brutality may sound like a good idea but it won't make it go away – we should challenge prejudice, not celebrate it

Between 2008 and 2012, I was a judge for the Eric Gregory award for poets under the age of 30. The prize was founded with the aim of encouraging young poets. Who could possibly object? One person did: a friend of mine in his 60s, who grimaced when he heard I was judging the prize. “Why is all the encouragement directed at young writers?” he asked. “What about those of us who first get published in our 50s?”

It's true that older writers also deserve support – happily, there is the McKitterick prize, awarded annually for a first novel written by someone over 40 – but no one could reasonably claim that those wishing to bolster young poets seek actively to discourage older ones; even my disgruntled friend would agree that Eric Gregory probably didn't endow his prize in the hope of showing elderly poets that he was sick of them.

Any literary prize with entry restrictions displays its priorities. It's wonderful that different awards are aimed at different groups and genres, because almost all prizes, in their intentions, are only *for* something, and not *against* anything else. The Romantic Novel of the Year award is *for* love stories, not *against* science fiction. I wouldn't object to my next book being entered for a prize that was open only to writers between the ages of 45 and 47 who have pet dogs. Ridiculous as those eligibility criteria might be, I could enter my book for the prize without feeling I'd let down my 40-year-old cat-owning friend. I don't feel the same way about the recently announced Staunch prize, which, according to its website, “will be awarded to the author of a novel in the thriller genre in which no woman is beaten, stalked, sexually exploited, raped or murdered”. The prize clearly has good intentions, and wishes to take an important stand against violence towards women. The problem is that it's not the violence that's on the receiving end of that stand; it's writers and readers.

Brutality is not the same thing as writing about brutality. After suffering a trauma, some people find it consoling and empowering to read, or write, about fictional characters who have survived similar experiences. If we can't stop human beings from viciously harming one another, we need to be able to write stories in which that harm is subjected to psychological and moral scrutiny, and punished. On some occasions, perhaps the fictional perpetrator will go unpunished, if the author is writing about the failure of the legal system to deliver justice. There is no life-changing experience that we should be discouraged from writing and reading about.

The Staunch prize could instead have been created to honour the novel that most powerfully or sensitively tackles the problem of violence against women and girls. Reading the eligibility criteria, it's hard to avoid the conclusion that the prize actively sets out to discourage crime fiction, even of the highest quality, that tackles violence against women head-on. And discourage it has. On Twitter, crime writers have voiced their dismay. Jodi Orton said: “As a fairly new crime writer, I heard about this award and initially felt like I had done something wrong in writing about violence against women.” Val McDermid added: “I expend vast amounts of time trying to write creatively about difficult things. Somewhat resent being lumped together with the crass, the incompetent and the pornographers of violence.” Sarah Hilary described the prize as “the least feminist thing imaginable”, while Steve Cavanagh used an analogy to make what seems to be an unarguable point: “Which book highlights racism and prejudice better? A book which is not about those issues or *To Kill a Mockingbird*? Wouldn't it be better to celebrate a book that could challenge prejudice rather than celebrate a book which ignores it?”

The best crime novels deepen our understanding of human experience. Most of my favourites – *A Dark-Adapted Eye* by Barbara Vine, *Broken Harbour* by Tana French, *Rebecca* by Daphne du Maurier, *And Then There Were None* by Agatha Christie – include female murder victims as well as male. McDermid's *A Place of Execution* is a devastating critique of the violence that is rightly disapproved of by the Staunch prize, yet it would be disqualified. That's why I'm going to ask my publishers not to enter any of my books for the prize, even if I write a thriller in which the worst thing that happens to a woman is someone spilling coffee on her new shoes. Perhaps one day someone will argue that this too – having shoes ruined by coffee – is a negative experience that only male fictional characters should be allowed to have.

The fairest of them all: why Europe beats the US on equality

Lucas Chancel

Inequality is on the rise across the world, but it's not increasing everywhere at the same pace. In many ways Europe stands out as a positive exception. Despite all the criticism thrown at the EU, it is a global leader in preserving a degree of fairness in the social fabric. This may seem unlikely – Europe is hardly devoid of problems and tensions. Parts of the left depict it as a vehicle for neoliberal economic policies, and parts of the right deride it as an inefficient administrative monster. So how is Europe really doing?

It's hard to exaggerate the difference between western Europe and the USA when it comes to inequality. In 1980, these blocs of similar population and average income were also similar in income inequality: the top 1% captured around 10% of national income, while the poorest 50% took around 20%. Things have changed dramatically since then. Today, the top 1% in Europe take 12% of income (in the US, 20%) while the bottom 50% have 22% (in the US, 10%). It's often said that globalisation and digitalisation explain the surge in global inequality, but that's not a very convincing narrative. Since the 1980s, Europe and the US have had similar exposure to global markets and new technologies. But they have differed in policies and institutional direction. To date, Europe has shown that it's much better at keeping inequality in check.

Put bluntly, the EU has resisted the notion of turning its market economy into a market society. It has partly rejected the thinking of Ronald Reagan and Margaret Thatcher, in which market forces, in the absence of any regulation, provide the best of all worlds in areas such as education, health and wages. There are large differences within Europe, though: the UK and Ireland have followed the American path more closely than continental Europe has. Nor can it be said that recent policy changes all go in the right direction. France's recent reforms are strikingly similar to Donald Trump's in how they favour the rich.

That said, social healthcare systems in most European countries still guarantee universal protection for all – hardly the case in the US. Many of those countries offer free access to university. A young European's hopes of receiving higher education depend much less on his or her parents' income than their American counterpart's. Labour markets are also more favourable to workers in Europe than in the US, where the minimum wage has fallen by a third in real terms since the 1970s (in France it has risen fourfold). In Sweden and Germany, trade unions are represented in corporate governance bodies, taking part in strategic decision-making.

European regulation against lethal, polluting substances is stricter than elsewhere, and European countries are at the forefront of the global fight against climate change, investing a growing share of their GDP in energy efficiency and renewables. That's also key to reducing inequality, now and in the future. Studies show that environmental degradation and inequality are closely linked.

Generous welfare states need to be financed, of course. Europe is a patchwork of taxation systems. But overall the continent has been good at protecting progressive taxation – which has not been the case in the US, Britain and also countries such as India, where inequality has mushroomed. Progressive taxation is a proven tool against entrenched privileges at the very top; it also helps finance investment and public expenditure designed to lift income levels at the bottom. The EU has been instrumental in helping its poorer member states, and its low-income regions, catch up with those that are better off. The picture is not perfect, but EU cohesion funds have done a lot to fill some of the gaps and help its newer members.

But this brings us to the less positive side. Since 2007, Europe has been rocked by economic and institutional crises. Despite attempts by EU policymakers public debt levels in Greece remain unsustainable. Austerity measures in southern Europe have cut into much-needed welfare programmes and led to a rise in poverty. Europe stands at a crossroads. If it wants to avoid alienating younger generations, and the risk of implosion, it must find solutions other than austerity.

Europe's disparate taxation systems surely need fixing. In recent decades, Ireland, Luxembourg and Malta have reaped the benefits of being tax havens. Other larger countries have paid a price, making the financing of the welfare state all the more difficult. The resulting period of corporate tax cuts has bred resentment among the lower-to-middle classes, who faced tax hikes to compensate for the losses. Europe has done relatively well in the fight against inequality since 1980, and now it feels buoyed by signs of economic improvement. But European leaders would be naive to assume the status quo can be sustained. To preserve its social model, the EU needs to establish common progressive fiscal rules and relieve younger generations of debts they are not responsible for.

The EU must democratise its economic governance, integrate more – including politically – and establish common fiscal rules. That may seem like a tall order, but it isn't when it's set against some of the leaps Europe has taken in the past – which have helped make it, for all its flaws, the fairest region in the world.

Why shopping is about to become all about the experience

By Katie Beck

In years to come, the Black Friday spectacle of throngs of shoppers scrambling past each other to ransack shelves of flat screen TVs might look very different. Shopping may be about to undergo a dramatic transformation. Within the next decade it could change into an activity driven entirely by experiences and interactive technology rather than the act of buying. Think pop-up shops on steroids; places where you try things on or test products in person but don't actually make any purchases.

This rise in so-called 'experiential shopping' is in part a reaction to the growth of online shopping. Last year online sales grew by 15% in Europe and North America and a similar increase is expected this year. But this increasingly digital shopping experience means brands have fewer opportunities to meet their customers face-to-face and are getting desperate to connect. It is leading them to seek out new ways of reaching consumers.

Take the Museum of Ice Cream, for instance. It's not a museum. It's not a shop. It's somewhere in between. Once inside, visitors are confronted with fun things to do rather than to buy – brightly-coloured, ice-cream themed installations such as a giant pool full of sugar sprinkles to jump into. "The way in which we are able to have our visitors physically, tangibly, sensually engage with brands has a return on investment that no ad could ever come close to," said Maryellis Bunn, who designed the experience. Bunn believes as more retailers move entirely online, their former shop fronts will be replaced by "experiences".

Traditional brick-and-mortar shops do appear to be disappearing in swathes. In the US, Macy's, Sears, and K-Mart are closing the doors in hundreds of locations while in the UK Mark & Spencer and Debenhams are making similar closures. But confusingly new stores, largely discount and low-end outlets, are opening too. In 2017 there will in fact be 4,080 more shops opening than there are closing, according to a report by the research firm IHL Group.

It is a complicated picture, but thinking of retail as either online or physical spaces misses the point, says Steven Dennis, a brand strategy consultant. He believes shopping in the future will need to be an amalgamation of both online shopping and physical stores, where customers move seamlessly between the two. Personalised interaction with customers such as intuitive apps and immersive experiences will be fundamental to success. To understand how things will look, Dennis says we need to analyse how brands are already interacting with customers rather than just whether they are selling things online or in store. Brands that try to appeal too broadly to too many different people are failing spectacularly, according to Dennis. "You either need to pivot more towards the Amazon side of incredible convenience and great selection and low price or you've got to pivot to the other extreme, which is to be more special and remarkable and differentiated," he says.

Plans from coffee giant Starbucks show this theory in action. In April, Starbucks chairman Howard Shultz told investors that any retailer who is "going to win in this new environment must become an experiential destination. Your product and services, for the most part, cannot be available online and cannot be available on Amazon." In October, it closed its online store. And now, the company is launching 1,000 "Starbucks Reserve" locations. The concept is a high-end coffee bar where patrons can see small batch coffee beans being roasted and taste "coffee flights".

Even retailers that started out entirely online are moving towards creating locations where customers just try out their products. Eyewear start-up, Warby Parker, which is valued at more than \$1 billion, offered customers affordable, designer frames that they could try-on at home before deciding to buy, when they started out in 2010. Seven years down the track Warby Parker has more than 60 retail locations across the US and Canada where customers pick stylish frames in strikingly sleek and trendy shops with lots of personal assistance from staff on-hand to give advice about the perfect frame for your face. But even if you do find a pair you like, you can't bring them home with you. Instead, glasses are mailed to customers.

There is certainly no shortage of space for this new form of experiential shopping. It is estimated that there is currently over 800 million square feet of empty retail space in the US. In the UK the proportion of all shops that have been empty for over two years has risen sharply to about one in 28. Exactly what will fill these spaces remains to be seen, but with digital retail technology likely to continue disrupting the shopping experience, it is safe to assume that Black Friday could become more of an experience than a bargain hunt.

For how long can we treat the suffering of animals as an inconvenient truth?

By Michael Brooks

Scientific insight is a powerful thing, but will it ever override the human lust for health, prosperity and, saddest of all, convenience?

This question entered my head as I read of the Labour party's newly announced policies for animal welfare "informed and underpinned by the latest evidence on animal sentience". Such an approach would lead to laudable bans on foie gras imports and nonsensical badger culling. But let's be careful what we wish for: further down the line, it would also lead to some uncomfortable dilemmas. In fact, how we redraw our relationship with animals promises to be one of the dominant themes of the coming decades. Those alert to animal sentience already find themselves in difficult situations. Richard Dawkins, for example, has declared: "We have no general reason to think that non-human animals feel pain less acutely than we do." This, Dawkins says, should change our cultural habits. Practices such as branding cattle, castration without anaesthetic and bullfighting, for instance, "should be treated as morally equivalent to doing the same thing to human beings".

Neuroscientist Christof Koch, who researches consciousness in all its forms, has expressed discomfort over the question of whether we should eat animals. "What right do I have to kill them if they're not just automata but can actually sense and feel?" he asks. The philosopher David Chalmers feels much the same but has drawn an arbitrary distinction between simple and complex consciousnesses, allowing him to eat fish and chicken. Such cognitive acrobatics are routine in this field. Exchanging views with an animal consciousness researcher, she admitted she found it difficult to eat animals that she knew were sentient. As a result, she said, she never ate any species she had studied. And, she added, she would never study cows.

There's no escape via the "lower" animals, though. Plenty of research suggests that chickens are not unfeeling meat stores on two drumsticks. They suffer distress, even when they are not suffering themselves. Uncomfortable as it may be to learn this, chickens demonstrate empathy for one another. Studies of fish brains and behaviour suggest that intensive farming practices are almost certainly causing fish conscious distress. And then there are the cephalopods: the octopus, squid and cuttlefish. Their brains have the capacity to think, plan, reflect and learn and almost certainly feel, in the same way that humans do. Octopuses make this clear, showing intention and imagination when they carry shelters with them, build settlements, vary their hunting habits from day to day and escape from captivity when given the chance. Thanks to revelations such as these, while I still eat cows, sheep and pigs, I no longer eat octopus. It's my own little cognitive dissonance; after all, I haven't quite given up eating cuttlefish, even though I know about studies that show that they, like cats and dogs, dream when asleep. I have, unconsciously, drawn a line.

But here's the real dilemma: how many inconvenient truths will we tolerate? Take the inconvenience – to some – of a fox's sentience. Although it is scientifically impossible to know what a fox feels when chased by a pack of hounds, our understanding of animal brains gives us reliable hints. We share millions of years of evolution with the fox and the basic brain responses rely on similar circuits and chemical flows. Being hunted by dogs is almost certainly as terrifying for a fox as it would be for us. It goes further "down", though. Experiments have shown that cockroaches and funnel-web spiders experience distress and suffering in certain situations. Is it then unethical to use invertebrates in experiments without considering how these creatures might be feeling? This seems like going too far, doesn't it? To most of us, spiders and cockroaches are of significantly lower value than humans. But we should remember that our relationship with these creatures, and all creatures, is a cultural one. Millennia of reliance on their protein and other assets, an instinct to avoid the dangers they might pose and an ignorance of their inner lives have inculcated a conviction that they don't have the same worth or value as humans. Now that science is showing us the reality of what it's like to be a factory chicken, an ostrich raised for steaks or a caged cockroach, can we overcome our conditioning and react appropriately?

Bioethicist David Mellor, who was influential in drafting New Zealand's progressive animal welfare legislation, says our deepened scientific understanding of the animal experience means we should move away from giving the animals in our care mere "freedoms" from negative experience; we should, instead, be ensuring they enjoy lives that are "worth living". It will be difficult. While we have banned research on chimpanzees, we still indulge the cognitive dissonance that allows us to experiment on monkeys, despite what we know about these creatures. The scientific justification is one of "necessary evil": the potential for medical advances outweighs the impact on the individual animals. But the value judgment is writ large: the same argument would hold no water if the individual animal in question were human. It is not impossible that, within a few decades, eating meat will carry the same stigma as smoking tobacco, or using cosmetics tested on animals, has begun to carry now. There are some stern tests ahead, however. Which of us, for instance, would refuse a life-saving transplant just because the heart, though human, was grown in a pig? Raising genetically manipulated pigs containing human organs is becoming a real possibility, but will involve millions of animals that die just so humans can live. Is that, in Mellor's terms, a life worth living? Should we feel as uncomfortable about these pigs as we do about the humans cloned and raised for their organs in Kazuo Ishiguro's novel *Never Let Me Go*? I think we should, but I'm not convinced that we do – or ever will.

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To cure affluenza, we have to be satisfied with the stuff we own

Richard Denniss

Affluenza has not just changed the world, it has also changed the way we see the world. Short of money? Borrow some. Caught in the rain? Buy an umbrella. Thirsty? Buy a bottle of water and throw the bottle away.

Our embrace of “convenience” and our acceptance of our inability to plan ahead is an entirely new way of thinking, and over the past seventy years we have built a new economic system to accommodate it. There is nothing inevitable about this current way of thinking, consuming and producing. On the contrary, the vast majority of humans who have ever lived (and the majority of humans alive today) would find the idea of using our scarce resources to produce things that are designed to be thrown away absolutely mad. But the fact that our consumer culture is a recent innovation does not mean it will be easy to change. The last few decades have shown how contagious affluenza can be. But we have not always lived this way, which proves that we don’t have to persist with it. We can change – if we want to.

I define consumerism as the love of buying things. For some, that means the thrill of hunting for a bargain. For others, it is the quest for the new or the unique. And for others still it is that moment when the shop assistant hands them their new purchase, beautifully wrapped, with a bow, just as though it’s a present. But the love of buying things can, by definition, provide only a transient sense of satisfaction. The feeling can be lengthened by the “thrill of the chase”, and may include an afterglow that includes walking down the street with a new purchase in a branded carry bag. It might even extend to the moment when you get to show your purchase to your friends and family.

However the benefits of consumerism are inevitably short-lived as they are linked to the process of the purchase, not the use of the product. So while consumerism is the love of buying things, materialism is the love of the things themselves – and that’s an important distinction. Salespeople and psychologists are well aware of this phenomenon. The term buyer’s remorse refers to the come-down that follows the thrill of buying something new. For many, the cold hard light of day takes the gloss off their new gadget, their new shoes or their new car. For some, this can be so overwhelming that they return the item. For a minority, the thrill of buying new things is so great, and the disappointment of owning new things so strong, that they make a habit of buying things they know they will return.

For those interested in the impact of consumption on the natural environment, it is crucial to make a clear distinction between the love of buying things and the love of owning things. While consumerism and materialism are often used interchangeably, taken literally they are polar opposites. If you really loved your car, the thought of replacing it with a new one would be painful. Similarly, if you really loved your kitchen, your shoes, your belt or your couch, then your materialism would prevent you from buying a new one.

We have been trained to love the thrill of buying new stuff. We love things not for their material function, but for the symbolic act of acquiring and possessing them. For many, if not most, consumers, it is the symbolism of a new handbag or new car, its expensive logo proudly displayed, that delivers happiness, rather than twenty years of using a material object. Symbols matter, and psychological benefits matter. The fact that people are willing to spend their own time and money to show they fit in or to make sure they stand out should be of little or no concern to others. But for those who are concerned with the impact of 7.5 billion humans’ consumption decisions on the natural environment, the choice of such symbols matters enormously. Whether people choose to signal their wealth by spending money on huge cars or antique paintings is arbitrary, but that does not mean the environmental consequences aren’t highly significant.

Put simply, if we want to reduce the impact on the natural environment of all of the stuff we buy, then we have to hang on to our stuff for a lot longer. We have to maintain it, repair it when it breaks, and find a new home for it when we don’t need it any longer. If we want to cure affluenza, we have to get more satisfaction from the things we already own, more satisfaction from services, more satisfaction from leisure time, and less satisfaction from the process of buying new things.

Elementary School Homework Probably Isn't Good For Kids

Fatherly (a publication for modern fathers)

A powerful combination of superstition and questionable research ensures young kids hit the books instead of just, you know, reading them.

Many parents are surprised to see a flood of projects and homework sent home with their kids starting as early as Kindergarten. And a nasty surprise it is. Combine a snack-hungry 5-year-old with a math worksheet and you've got a parental nightmare. Still, that angst would — one could at least argue — be worthwhile if it meant greater scholastic achievement. The problem? There is very little evidence to suggest that homework is anything more than a hassle when it's assigned to young children. Dr. Cathy Vatterott, an education professor at the University of Missouri-St. Louis has spent much of her career researching the research about homework. The findings, she said, are unambiguous. "They really can't prove any benefit in elementary school," she says. What is, however, a bit harder to understand is the nature of the "they." Who wants to give young children homework and why?

"Teachers and possibly schools confuse homework with rigor," Vatterott says. She notes this is particularly true in private schools and high-income school districts that pride themselves on awards and college placement. These institutions lean into homework, conflating student achievement with evidence of homework efficacy. In reality, the teachers (and by extension their students) are victims of educational superstition. "There are teachers out there who see things are going really well," Vatterott says. "And they think, 'We better keep doing what we're doing or all hell is going to break loose.'" In truth, data indicates that homework for the youngest students in the elementary grades has, at best, has no bearing on achievement. And the studies that do suggest homework has positive effects can only prove correlation, not causation. That's because it's incredibly difficult to control for all of the other variables that can lead to better academic outcomes, including factors like teacher quality, parental involvement, amount of sleep a child receives, proper nutrition, and — here comes the big one — socio-economic status. And, yes, there is research that suggests homework can have negative effects.

"There's a lot of evidence that it's putting too much stress on families," Vatterott explains. "And that it's contributing to whether kids like school or not. We certainly don't want kids to hate school." Temple University professor, Dr. Kathryn Hirsh-Pasek places an even finer point on the damage homework can do. "All this homework is also changing the dynamic of parent-child relationships. It certainly isn't making learning fun, and learning doesn't just happen at school." Hirsh-Pasek acknowledges that practice is necessary for learning, but she rejects the idea that said practice must be completed through worksheets and homework packets. The play that kids naturally engage in, she points out, helps them practice the skills they develop in the classroom. "Believe it or not, you learn about math when you're playing different board games," Hirsh-Pasek explains. "And you learn about space when you put together train tracks and play with Legos. You learn important skills, like how to get along with other people when you play with other people. They're learning way more important skills when they're not doing their homework."

That said, there is one activity that researchers feel that parents and children should be doing at home: reading. "There is practically nothing that will be more important than reading time," Hirsh-Pasek says. "It's a time when kids learn integrated narrative. It's a time when they learn about relationships and hear vocabulary that they don't hear anywhere else." Vatterott explains that a similar sentiment about reading seems to be gaining ground nationally. "Trend-wise, what's happening across the country, is that we've started to see an increase in elementary schools eliminating homework, or saying that homework is just to read or be read to," she says, though she notes that achievement-obsessed schools are obstinate holdouts. And it could be that some parents are holdouts too.

After all, doesn't homework teach grit and responsibility to kids that desperately need it? Yes and no. There is virtue to struggle and to responsibility, but homework is really more of an obligation than anything. "A struggle is good when there is a success at the end of the struggle," suggests Vatterott. "But it's a very simplistic view to suggest that homework teaches them responsibility and to delay gratification. It's a really weak argument." Hirsh-Pasek agrees. "The truth is that everything has to be put in balance," she says. "If you want your child to learn perseverance give them some chores at home. The worst thing that you can do today is to have people sit when they should be standing and stand when they should be moving."

It's time to recognise how harmful high-rise living can be for residents

Royce Turner & Andrea Wigfield

The fire at Grenfell Tower has catapulted high-rise social housing into the public consciousness, in a way not seen since the 1960s. Back then, high-rise tower blocks represented a new vision of social progress. They were greeted with hope and optimism by housing officials, architects and town planners across the UK. But now, the mood has turned to one of bitterness, anger and fear. Over the years, most of these so-called “villages in the sky” have become concrete containers for society’s poorest and neediest people.

This is not just an issue in the UK. Today, millions of people live in high-rise apartment blocks around the world. In Moscow alone, there are 11,783 high-rise towers, in Hong Kong there are 7,833, and in Seoul there are over 7,000, many of which are residential. Understanding the link between high-rise living and mental health is crucial to protect the well-being of tower block residents across the globe.

High-rise living evokes unsettling fears – residents could be trapped in a fire, or fall or jump from the tower. The sheer number of people sharing a single building can also increase the threat from communicable diseases such as influenza, which spread easily when hundreds of people share a building’s hallways, door handles and lift buttons. Sharing semi-public spaces with strangers can make residents more suspicious and fearful of crime. Many feel an absence of community, despite living alongside tens or hundreds of other people. And in earthquake-prone countries, residents of high-rise towers face the possibility that their entire building could collapse. Perhaps most poignant of all is the fear of isolation. During ongoing research into social isolation among older people in the English city of Leeds, residents of high-rise buildings reported feeling lonely and isolated – some were afraid to even open their front doors. Many of these older residents rely on networks of neighbours, friends and family to help them get around and perform basic chores. One wheelchair user explained how she relied on her neighbour to help her get to the lift and out of the block. If her neighbour is not there, she is stuck.

Living with fear every day means that residents of high-rise housing – and especially social housing – are vulnerable to mental health issues. Psychologists have been investigating this link since the 1970s – a 1979 study based in Glasgow found evidence that high-rise residents were presenting psychological symptoms more often than other housing residents. Another paper from 1991 compared elderly African-Americans living in high-rise and low-rise buildings in Nashville. The high risers had a higher incidence of depression, phobias, schizophrenia.

But researchers aren’t always comparing like with like. In Nashville, although the residents shared the same ethnic background, high risers were poorer, less educated and had fewer social contacts: all factors which may contribute towards mental ill health. So it’s difficult to say whether it’s the building itself, or other hardships such as poverty, which cause high-rise residents such difficulties. Yet there is some evidence to suggest that high-rise buildings themselves are actually responsible for some of the harms done to residents. For example, in Singapore, between 1960 and 1976, the percentage of people living in high-rise buildings climbed from 9% to 51%. During the same period, the per capita rate of suicides by leaping from tall buildings increased fourfold, while suicide by other means declined. This could be for one of two reasons. Either more people became suicidal and would have found a way to commit suicide by any means – or greater access to tall buildings gave more people a means of killing themselves, which they wouldn’t otherwise have done.

The overall suicide rate in Singapore increased by 30% over the aforementioned period but the rate by leaping increased many times faster, which suggests that having more tall buildings leads to more suicides. While suicide rates have been stable for five decades now, jumping from buildings remains a common method for suicide there, as well as in other cities where high rise buildings are ubiquitous – such as Hong Kong, New York City, Taipei City. Yet high-rise living can have its positives. Roughly four in five Singaporeans live in public housing – almost all of it high-rise. Older buildings are regularly refurbished and most are near to local food markets, parks and sports halls. Some even have sky gardens and rooftop running tracks.

All of these factors can help to create a less stressful environment. What’s more, in Singapore, the residents of public housing are deliberately mixed by income and ethnicity, so that each neighbourhood is reflective of the population as a whole – this helps to avoid the kind of social segregation that tends to occur in the UK. If this example is followed in other cities across the globe, then living in high-rise towers might not be quite so damaging after all.

Should I call out my friends for using their phones while driving?

Emma Brockes

There's no question that 'distracted driving' can be deadly – so why are so many of us reluctant to take a stand against it? A friend drove me to work the other day and, while she was driving, picked up a call on her cellphone. It was a short conversation and after she hung up, she apologized, but the episode left me feeling uncomfortable. Should I have called her out or am I overreacting?

I suspect you don't need me to tell you that your nervousness is well-founded: the statistics on car accidents and phone use are incontrovertible. In 2015, approximately 3,477 people were killed, and 391,000 were injured, in car crashes caused by "distracted driving".

So this should be a simple one. If a friend lit up a cigarette over your newborn, you would shriek at the friend to put it out. You wouldn't hesitate to remind a driver to put on her seatbelt. But for some reason, casual phone use at the wheel is something that many of us either do ourselves, or tolerate when others do it, even though it is almost as dangerous as drinking and driving.

We're all addicted to smartphones. Are flip phones the miracle cure? This reluctance is partly to do with sketchy enforcement. But it might also have to do with the relative newness of the technology and the delusion many of us have that when we're on our phones, we control them rather than the other way round. It is universally understood that when you drink, you lose control, often while comically insisting you're still capable; when you text or talk on the phone, by contrast, it is possible to persuade yourself that (a) you can break off at any minute, and that (b) you are not performance-impaired.

Experience tells us that neither of these things is true and yet we persist with the rationalizations: it's just a two-minute call; I'm accustomed to multi-tasking; I'm really, really concentrating on the road. All of which is fine until another driver, also on his cellphone, behaves erratically in front of you and your delayed response time catastrophically alters the outcome. When you are not the driver, these risks should strike you even more acutely. But this is where things get tricky. You either have a personality for admonishing people or you don't, and your hesitation suggests you fall into the latter category. I understand; I feel the same way. The other day, I was in a taxi with someone who belongs, very emphatically, to a different personality type and every time the driver so much as glanced at his phone, she was banging on the screen yelling: "Guy! Hey, guy! Keep your eyes on the road."

The appropriateness of addressing someone as "guy" in this context is debatable, but there's no doubt that her impulse was correct, not least because there were three children in the back of the cab with us. Two of them were mine, and yet my first thought was to rationalize my reluctance to say anything; we were travelling in early evening rush hour at a speed of about three miles per hour; I was holding my children on my lap very tightly (not recommended by car safety experts! Ever!); it was a very short trip. Meanwhile, I felt bad for this guy, driving a cab all day while angry passengers shouted at him from the back. My fear of social embarrassment, it turns out, is deeper than my concern for my children, which feels like a useful thing to find out.

I need to get over it. In a few years, fatalities caused by phone use at the wheel will almost certainly have reached a critical mass and universal laws will be introduced, whereupon breaking them will become more taboo. In the meantime, it might be useful to remember – although I concede it is hard – that social awkwardness can't actually kill you. If necessary, do yourself down with a lot of self-effacing caveats about what a neurotic fuss-pot you are and would she mind awfully indulging you. But bottom line, tell your friend it's not on.

Why was Johnny Hallyday so popular in France?

By François Chevallier

He is the top selling singer in French history to this day, surpassing even Piaf or Brel. He topped the French charts routinely throughout the whole 1960's and early 70's, and his career continued further on. He must have been the French answer to Elvis Presley, or a sort of musical answer to Alain Delon. He is about iconic as Elvis in France, although this status didn't get beyond the borders: USA today called him the greatest rock star you never heard of. Whatever you may think about his character and style, the man had a voice.

Johnny Hallyday wasn't at all his real name, he had Belgian ancestry and a rather dreary childhood. He learned guitar early on, and was among the very first in France to discover American blues and rock'n roll music through an English relative of his. He started having his first hits at a time young Frenchmen were still being drafted for the war in Algeria. The end of the war coincided with the appearance of a French youth culture, originally modelled on the American one, but soon acquiring a "French touch", although lightyears away from the "chanson" that was prevailing until then.

The new style that appeared was decried by adults, but it was idolized by the youth, and nicknamed "yéyé" from the English "yeah yeah". There were quite many singers following that movement but Johnny Hallyday remained its undisputed king for the following years. It was a trend for those singers to pick up American sounding names. Even though Johnny Hallyday did cover many American hits to start with, his songs came to be mostly his own compositions as years passed, or else provided by French composers and lyricists.

The rock music he played was supposed to be tough for the time, his voice was noticeably deep, manly and powerful, and his image was enhanced by his lasting romance with Bulgarian born Sylvie Vartan, the most popular of female yéyé singers. Like some other pop idols, his concerts were known to trigger fits of hysteria among girls and even real fainting. He made controversial statements in the early 70's stating that "if Jesus had lived now, he would be a hippie". Nevertheless, he was known to have conservative views at the time when the French youth was very anti-Vietnam war, and though it impacted his image, it hardly affected his success. His lyrics were known to be very "hot" sometimes, and you could definitely call him a stage freak.

Even if his style was heavily influenced by America, he always targeted the French public. He was contemporary to Italian Adriano Celentano, had an equivalent role and fame, but their styles and characters were different though. His upbeat teddy boy style softened with time, but he always kept a romantic vision of the USA, with constant references to Memphis, Nashville and the blues. Still in his fifties, he was still giving yelling and sweaty performances, filling whole stadiums with fans, reuniting both his former groupies from the early period and their children. He remarried with a model young enough to be his daughter, and his relatively premature passing away was no big surprise, as he was well known for substance abuse and had appeared on TV in altered states.

His death is the occasion for English speaking people that there is a pop/rock scene outside of the anglosphere, that it has large fanbases, and that some rock songs that are not in English can have powerful music and lyrics. Johnny Hallyday is far from being exceptional in this respect, but as as you understood, he was iconic to French people.

Big business, not taxpayers, should pay to clean up plastic waste

Geraint Davies

A six-year-old boy, Harrison Forsyth, provided us with a much needed wake-up call last week. He called on the boss of Aldi to protect our oceans: “Dear boss of Aldi, I have watched this programme called Blue Planet 2 and I have seen that the plastic in the sea is making the animals sick and die. So please can you stop using plastic that you cannot recycle?”

Young Harrison is right to be concerned: the trapped turtles, dying birds and suffocating whales in BBC’s Blue Planet II show the damage that plastic is causing to our world. Millions of tonnes of plastics enter the oceans each year and the United Nations says that if current pollution rates continue, there will be more plastic in the sea than fish by 2050 – Harrison will be just 41 years-old.

Even though plastic is destroying our oceans, big corporations are being given money to produce cheap plastic. Taxpayers pay more than 90% of the cost of recycling, while huge subsidies are placed on fossil fuels, the major building block for plastic. This is unfair: we need to take bold action now.

Corporations should pay for the damage they cause. Only then will they be forced to create environmentally friendly alternatives. Fossil fuel companies received subsidies of \$5.3tn (£3.7tn) worldwide in 2015, China alone provided subsidies of \$2.3tn. As plastic is made out of fossil fuels, these are effectively colossal plastic subsidies.

Rather than being paid to pollute our waters, the polluters should pay for their plastic waste to be recycled. Currently that cost is covered by the taxpayer, but instead the cost of recycling should be part of the cost of the plastic itself – with the additional money being transferred to local governments to pay for recycling. The government should reward retailers who develop new sustainable ideas, and raise charges on packaging that is difficult to recycle. This would reduce the demand for deadly plastics among producers and retailers.

Michael Gove’s 25-year plan to reduce avoidable plastic waste by 2042 falls well short of the EU’s Strategy for Plastics which aims to do the same thing by 2030. We should not be lagging 12 years behind our EU neighbours. Gove claims to be “haunted” by Blue Planet, but he is bizarrely proposing leaving the plastic problem until he is 75 years old.

The government proposals fail to make manufacturers and retailers pay for the environmental and social costs of plastic. The government should change this to stop big corporations ruining our oceans.

Unrecyclable plastic has left the oceans in a critical condition. We need radical action. France is aiming to use 100% recyclable plastic by 2025, and we should aim to match them. A ban on fish-killing unrecyclable plastics should be a priority. The retailer Iceland has just promised to scrap plastic packaging on all of its own-branded products within five years; other supermarkets should be required to do the same.

The business costs of Brexit encourage companies to save money that should be invested in our environment. Last week the EU gave us a one-week ultimatum to comply with air quality laws. Our environment is at risk from Brexit so we need to make guarantees that EU environmental standards will be maintained in new trade deals outside of the EU.

We have an unconditional duty to protect the oceans for the sake of our children’s futures. If we want to save our turtles, birds and whales, we must take radical steps to tackle the plastic problem. This means incentivising business to reduce the use of plastic in favour of sustainable alternatives and banning unrecyclable plastic. If six-year-old Harrison can already see we need to take urgent action, then surely the time has come for brave and bold leadership to save our oceans

Brewdog's pink 'beer for girls' criticised as marketing stunt

Mark Sweney

Craft brewer says it launched repackaged Punk IPA to highlight gender pay inequality

BrewDog's launch of a pink "beer for girls", ostensibly to raise awareness about gender pay inequality and sexist advertising, has come in for criticism as a cynical marketing stunt. The independent craft brewer has launched a "new" Pink IPA – in reality a repackaging of its flagship Punk IPA – with a pledge to sell it a fifth cheaper in its bars to "those who identify as women". The discount is aimed to reflect the 18.1% average gender pay gap between men and women in the UK.

"The fact that the gender pay gap is still an issue in 2018 shows that a lot of lip service is being paid, but not enough action is being taken to tackle inequality," said the BrewDog global head of marketing, Sarah Warman. "With Pink IPA, we are making a statement the only way we know how – with beer. The love of beer is not gendered. Beer is universal. Beer is for everyone."

BrewDog has disclosed a 2.8% median gender pay gap in favour of men across its global business, which employs 1,000 people. It is yet to file its official figure for the UK, where most staff are employed. The Aberdeenshire-based company says it will donate 20% of sales of bottles of its "beer for girls" and Punk IPA to causes that fight against gender inequality. The blue-branded Punk IPA will be sold at the regular price, a discrepancy the brewer says it hopes will "trigger questions about why women continue to earn less than their male counterparts".

Sara Barton the director of Brewster's Brewing Company and instigator of Project Venus, a network of female brewers, says BrewDog's goals are laudable but consumers may not understand its approach to such sensitive subjects. "BrewDog is trying to be clever, sarcastic and ironic but I think it may be viewed as a patronising beer from one of the big boys," she said. "I applaud the thought – it is an issue that needs highlighting in brewing and beyond – but it may be too subtle for people to understand, over their heads and therefore patronising."

Paul Domenet, an executive at design firm Dew Gibbons whose female-focused clients include Aussie, Coty and Baby Dove, said: "However much they clothe it in a good cause it might be more to do with wanting more of a share of the lucrative female drinkers' market."

BrewDog says the "lurid pink" packaging and stereotyped Pink IPA brand name are meant to be a "send-up of the lazy marketing efforts targeting the female market". "There is a long history of products that pander and patronise through harmful, sexist stereotypes and vulgar imagery, and we're rallying to put an end to this nonsense," said Warman.

A beer industry blogger, The Crafty Beeress, questioned whether BrewDog's tongue-in-cheek approach to such serious issues was appropriate. "If you have to explain the joke then it's probably not a very good joke," she tweeted. Jo Stevens, the Labour MP for Cardiff Central, also questioned the brewer's tactics. "I'm a huge @Brewdog fan but oh dear me....," she tweeted.

Proceeds from the four weeks of sales in the UK will go to the Women's Engineering Society, a charity and a professional network of women engineers, scientists and technologists. Pink IPA will also be sold in South Korea, Ireland, Germany, the US and the Netherlands.

McDonald's Commits To More Balanced Happy Meals By 2022

By Allison Aubrey

Burgers and chicken nuggets are still the mainstay of the Happy Meal. But on Thursday McDonald's announced its goal to market more balanced kids meals around the globe. The company says by the end of 2022, at least 50 percent or more of the kids meal options listed on menus will meet new global Happy Meal nutrition criteria: Meals will have 600 calories or less; no more than 10 percent of calories from saturated fat; no more than 650 mg sodium; and no more than 10 percent of calories from added sugar.

These goals build on the commitments McDonald's has made to improve options for kids. And, in many cases, these goals represent small tweaks. For instance, to reduce sugar, McDonald's locations in the U.S. have already switched to organic apple juice that is lower in sugar and calories. Now, the company plans to reformulate chocolate milk to a lower-sugar version. In addition, they will downsize the size of the fries served with the six-piece Chicken McNugget Happy Meal. Currently it comes with a standard small fry, but going forward this will change to a smaller kiddie size.

The company also says it will aim to use its size and scale to leverage innovative marketing to "help serve more fruit, vegetables, low-fat dairy, whole grains, lean protein and water in Happy Meals," according to the company release. In a statement, the American Heart Association applauded McDonald's planned changes to the Happy Meal. "This is an important step in the right direction and we look forward to seeing how today's announcement will lead to kids eating fewer calories and less sugar, saturated fat and sodium," the group's CEO, Nancy Brown, said.

Not everyone is impressed by McDonald's announcement. "This is more of the same. Old tricks from an old dog," says Alexa Kaczmarek of Corporate Accountability, a watchdog group that campaigns for McDonald's to change the way it markets to children. "It doesn't matter how you dress it up, Happy Meals are vehicles for hooking kids on junk food and building brand affinity for life." So, when will McDonald's customers see alternatives to the burgers and nuggets for kids' entrees? McDonald's is testing the waters outside the U.S.

Last month McDonald's in Italy introduced a new Happy Meal entrée called the Junior Chicken—a lean, grilled chicken sandwich. McDonald's Australia is "currently exploring new vegetable and lean protein options and McDonald's France is looking at new vegetable offerings," the company said in a statement. "The U.S. will keep an eye on these," says Julia Braun, a registered dietitian and head of global nutrition at McDonald's. "We're committed to exploring new options."

Outside kids' meals, McDonald's has introduced vegetarian and vegan burger options in parts of Europe. "I tasted it. I enjoyed it," Braun says of the veggie burger in France. As for plans to introduce a veggie burger in U.S. stores? Braun says "it needs to be led by the customer." The fast-food giant would need to see that the demand is there. "It's got to have mass appeal."

In announcing its new goals, McDonald's also touted its success in removing sugary soda from the Happy Meal section of menu boards. This action was taken as part of a commitment with the Alliance for a Healthier Generation, a group that aims to empower kids to develop lifelong healthy habits. "From day one, Healthier Generation knew our work with McDonald's could influence broad scale improvements to meal options for kids everywhere," said Dr. Howell Wechsler, Chief Executive Officer of Alliance for a Healthier Generation in a statement. "Today's announcement represents meaningful progress." McDonald's says since 2013, the company has tracked a 14 percent increase in the number of Happy Meals ordered with milk, juice or water. According to the company, "for the first time, more than half of Happy Meals ordered in the U.S. have included water, milk or juice as their beverage of choice."

Radical new approach to jobs needed to help young people ‘scarred’ by years of insecure, low-paid work, think tank says.

Ben Chapman

A radical approach is needed to tackle “fundamental flaws” in the labour market that have harmed the prospects of highly skilled young people, a new report has said. Young people have been disproportionately affected by shifts in the nature of work in recent years, the Resolution Foundation said in the latest research for its Intergenerational Commission. The think tank proposes a “Better Jobs Deal” to combat precarious work and to create better jobs in more productive industries – supporting people to change jobs.

More than half of people on zero-hours contracts are aged 16-34 and a quarter of people in their early twenties did not receive a pay rise for five years in a row after the financial crisis, the report said. These experiences have “scarred” millions of young people, making them less willing to take risks in their careers that would aid national productivity, the Resolution Foundation said. Insecure work, stagnant wages and a lack of moving between jobs all need to be addressed before they cause even deeper damage to young people’s careers.

The Foundation said that the effects of the downturn are still being felt and notes that, despite record high levels of employment, fewer people under 30 are planning to push for a pay rise this year than in 2008, when unemployment was as high as 8 per cent. According to new polling by Ipsos Mori for the Intergenerational Commission, more than a third of millennials haven’t moved jobs because they don’t want to take the risk, they believe there are no jobs with better pay or career prospects out there, or they don’t think they have the skills to try.

The Resolution Foundation has proposed a range of measures. The think tank said job security should be increased by guaranteeing rights to a contract that reflects the hours people have worked. It also said there should be higher pay for working hours that are not guaranteed, and statutory maternity and paternity pay to the self-employed should be extended.

The Resolution Foundation said efforts to raise the UK’s lacklustre productivity growth should focus on three low-paying sectors in which the proportion of young people has risen significantly – retail, hospitality and social care. It also called for financial support, such as help with housing costs, for those wanting to move to a better job. Funding should also be provided for training those looking to progress within an industry, or those switching into more productive sectors, the report recommended.

The Foundation said it will be years before we fully understand the depth of the scars of long-term, insecure and low-paid work. To assume these problems will disappear would be a “dangerous mistake”, it said. Stephen Clarke, senior economic analyst at the Resolution Foundation, said the approach to the labour market needed a “sea change”. “Too often our labour market policy is focused on the problems of yesterday, not the challenges of today,” he said.

“Dole queues have been replaced by hidden insecurity and stagnant wages. The challenge is no longer just getting young people into work, but increasing the security they have in that work and giving them the confidence and support to move jobs if that’s what they want to do.

“The UK has seen an employment triumph, but we now need a ‘Better Jobs Deal’ to face up to new challenges. If we fail to adopt new approaches, we risk leaving a generation of young people struggling to get by and progress.”

Britons told to get a good night's sleep

By Denis Campbell

Long-hours culture behind epidemic of sleeplessness damaging workers' health

Britain is suffering an epidemic of sleeplessness, according to a book that takes a forensic look at the physical and mental consequences of failing to get a good night's rest. In *The Business of Sleep*, Prof Vicki Culpin, a clinical psychologist and expert in sleep and memory, warns: "Never before have significant percentages of working adults been so sleep deprived." Her book takes aim at "an age of foolishness" in which large numbers of people seem unaware of what Culpin describes as the "serious cognitive and health consequences of insufficient or poor quality sleep... despite the addition of sleep hygiene courses in corporate wellbeing and occupational health packages".

High levels of sleeplessness expose people to risks ranging from the common cold to depression, dementia and a possible stroke or heart attack. The risk of obesity, cancer and diabetes is also increased. Anyone who gets less than seven hours rest a night is at heightened risk of damage to their physical or mental health. Exact numbers are hard to quantify but evidence suggests that large numbers of Britons get less sleep than they need. Research by the Royal Society for Public Health in 2016 found that we typically sleep for 6.8 hours a night. But a five-country study in 2013 by the National Sleep Foundation in America found that 16% of adults in the UK sleep for fewer than six hours a night while another 19% sleep for between six and seven hours.

Sleeplessness carries an economic cost too, writes Culpin, who is professor of organisational behaviour at Ashridge Executive Education, part of Hult International Business School. The UK loses 200,000 working days a year to absenteeism caused by lack of sleep. "Getting the right amount of sleep every night can reduce mortality, improve organisational effectiveness and save the UK economy between \$36.7bn and \$50bn (1.36%-1.86% of GDP) every year," she says. Culpin also details how regularly sleeping too much – more than nine hours a night – may also have an impact on health. Poor sleep also affects our memory, decision-making, creativity and mood.

According to *The Business of Sleep*, jetlag, alcohol, exercise, caffeine, noise, young children, shift work, late night carousing and use of electronic media all help explain the epidemic. But Culpin identifies a key culprit as "the macho attitudes of organisations that focus on presenteeism and the long-hours culture as a badge of honour". She hopes her book, which is aimed at business people, will be "a wake-up call. There is a very clear imperative to make changes."

Culpin's tips for ensuring good sleep include avoiding heavy or spicy food for two to three hours before bedtime, using blackout blinds to make your bedroom darker or an eyemask, avoiding naps after 5pm and establishing a regular wind-down routine, including going to bed at roughly the same time every night, including at weekends, and having no technology in the bedroom.

Dr Mike Farquhar, a sleep expert and paediatrician at the Evelina Children's Hospital in London, says that too many Britons do not prioritise sleep. "All of us can come up with lots of ways to spend our time that feel 'better' to us than getting a good night's sleep, and we don't emphasise enough just how important getting the right amount of sleep is to our physical and mental health and wellbeing and our ability to function at work. "I worry that so many people still don't understand how much benefit there is to making sure they have a good sleep routine that gives them the right amount of sleep for them, most nights of their life, and what the consequences to their long-term health might be.

White men may be biggest winners when a city snags Amazon's HQ2

Amy Bhatt and Dillon Mahmoudi

Amazon may be hosting the biggest – and most economically important – reality show ever as city mayors compete to snag the retailer's second headquarters. And just like TV, it has a diversity problem. More than 230 cities made the initial bid, and just recently Amazon whittled that list down to 20 that will go on to the next stage of the competition. Contestants have gone to great lengths to woo the tech giant. Newark, New Jersey, for example, promised over US\$7 billion in tax breaks over the next decade. The winning community, to be announced later this year, will see billions of dollars in new investment and tens of thousands of high-paying jobs as an award. Such a long-term investment naturally would be welcome news for any city, particularly those like Philadelphia and Indianapolis that have seen decades of economic divestment. However, there will almost certainly be drawbacks as well. As scholars of gender studies and geography, we believe it's worth taking a closer look in particular at who would fill the jobs Amazon's new headquarters would create and how it would affect local quality of life.

In its search for "HQ2," Amazon set out a few simple criteria for its city selection: a metropolitan area with more than 1 million people, a stable and business-friendly environment and the ability to attract and retain strong technical talent. The company said it expects to invest over \$5 billion dollars in construction and to generate 50,000 "high-paying jobs," plus "tens of thousands of additional jobs and tens of billions of dollars in additional investment in the surrounding community." A mayor of a city like Atlanta or Chicago, hoping Amazon fills many of those jobs with a diverse selection of its skilled denizens, might be disappointed. That's because Amazon – and tech companies more broadly – have long had a diversity problem.

The company's latest diversity data show that 66 percent of its managerial and professional employees are white. While that may seem normal in overwhelmingly white Seattle, almost four-fifths of its employees are based elsewhere. While Amazon has sought to highlight its diversity, for instance, by noting that 21 percent of its total workforce is African-American, most of them are concentrated in nonprofessional "administrative, labor or helper" roles. In fact, African-Americans held only 3.7 percent of Amazon's mid-level managerial, professional or technical jobs in 2016, and zero executive or senior management roles. Given these hiring trends, it is not clear that Amazon will do much for high-skilled minority workers in heavily African-American candidate cities – let alone help their most economically disenfranchised populations. Even though it's within Amazon's best interest to invest in hiring more women, the gender and pay equity numbers are bleak. Sixty-one percent of Amazon's global workforce are men, as are 75 percent of its managers. Though Amazon touts its gender pay equity (noting that women make 99.7 cents to every dollar that men make for similar positions), female employees are concentrated in lower-tier jobs.

This gender gap is reproduced across the technology industry. According to the U.S. Census Bureau, the share of women in information technology occupations has not only decreased since 1990 by nearly 5 percent, but women continue to cluster in less prestigious "front-end" jobs and not in the highest paying occupations like network architects or software development. A 2017 study by the tech-heavy job board site Hired shows that even when men and women were offered the same position in the same company, women were offered lower salaries 63 percent of the time. Tech hiring trends are even less favorable for women of color. For example, while Asian women are considered well-represented in the tech workforce overall, a revelatory 2017 report from the nonprofit Ascend Leadership revealed that they were the least likely to become managers and executives. Equally as troubling, the numbers of black women in tech actually declined by 13 percent from 2007 to 2015.

Beyond the jobs, however, cities are also hoping for investment and an economic boost. But there are downsides to letting a giant take over your city. Just ask Seattle. With the intention of supporting local economies, Amazon has established its growing headquarters in downtown Seattle, even encouraging employees to spend money at local shops by limiting on-site dining options. As a consequence, the city has been swallowed by the company's offices, which occupy 19 percent of all office space in downtown Seattle, making it not only the city's largest employer but also its largest user of land, roadways and public space. Traffic and congestion have outstripped the city's existing infrastructure. Almost 57,000 residents spent at least 90 minutes on their daily commute. Rents and housing prices have skyrocketed, homelessness is now the third-highest in the country, and the rapid growth of new office buildings and condos is replacing the older, smaller spaces needed for small business and entrepreneurship. Mahmoudi's research has shown that rapid changes like this can uproot or displace existing residents, reducing both diversity and equity. To be sure, Seattle has benefited a lot from Amazon's presence. Our point is that there are lots of costs too. Cities have long been known for "smokestack chasing," or offering lucrative tax incentives and other subsidies to lure companies or factories from elsewhere. These policies often don't work. You might call today's race to get Amazon's second headquarters a modern form of that phenomenon as municipalities compete in a zero-sum game for tech company outposts. Yet all of the presumed economic benefits are problematically predicated on the companies' continued growth, which is never a sure thing. The negative impacts, however, are much more certain.

Tech Giants Are Less Powerful Than They Seem

By Holman W. Jenkins, Jr.

Mark Zuckerberg's announcement that the Facebook algorithm will be revamped to downgrade third-party "news" may have been a lot of things -- a way to calm critics of Facebook's election role, a way to re-engage users who were turned off by the political din. But it was also something else: At this late date, Mr. Zuckerberg, with two billion users and a \$560 billion market cap, is still hunting for a sustainable product and revenue model for his company.

Idiocy is in a waxing phase in America. We know that. And Facebook and its social-media fellows have plenty to answer for in the court of opinion, with their algorithms constantly supplying us things to be unhinged about. But antitrust is not a solution for the privacy and fake news problems that come with social media. And neither is antitrust called for on traditional monopoly grounds.

Google is said to be dominant in a certain kind of "search," but searching for purchasable items now often begins on Amazon. Meanwhile, much of the online information that most preoccupies Americans is to be found inside Facebook, Twitter and other apps whose data isn't reachable by Google. Facebook is surely dominant in the business of algorithmically sifting your friends' posts to decide which you'll see, but there remain plenty of other ways for friends to exchange information. Facebook and Google together are said to be dominant in digital advertising. But digital ads are ads, a \$540 billion annual market they hardly dominate.

Amazon is said to be dominant in e-commerce, with a 44% share. But its share of total U.S. retail sales is 4%. Its share of global retail sales is less than 0.5%. What's more, companies dominant today won't be dominant a decade or two from now. That's the lesson of history. Today's leaders will guard existing cash flows and leave it to others to try to catch the next bit of lightning in a bottle. And for good reason: The iPhone, Google's search box and the Facebook twist on social media were far from certain to be the windfalls they turned out to be.

Are we not catching whiffs of impending maturity? Amazon is hunting for a second headquarters to house 50,000 new staff. It's bulking up on storefronts and fleets of trucks and planes. Wasn't the appeal of digital economics supposed to be the ability to grow without a commensurate rise in overhead? And who will run this sprawling retail conglomerate when Jeff Bezos is gone? Facebook not only is running out of new users to sign up, its adherents are starting to notice that they see only a tiny, Facebook-biased fraction of what their "friends" intend them to see. Apple is lashed to a single product, the iPhone, whose latest model is hardly leaping off the shelf. Apple's fabulous margins are increasingly maintained by jacking up prices. The company is moving into a grandiose new headquarters even as it falls far behind in the video-streaming market it once imagined conquering.

Already visible down the road are wearable technologies, augmented and artificial reality, various services that render the limitations of location meaningless. Anybody who thinks he knows which companies will capture these opportunities is fooling himself. The truth is, today's digital giants are providers of easily dispensable or replaceable services, so must act constantly to keep users happy or risk being eclipsed. Their targeting by activists on the make is the best evidence of their pending maturity. Barry Lynn, a researcher at the Google-sponsored New America Foundation, orchestrated his own firing as stunt to launch his new anti-"monopoly" research shop. Lina Khan, the Yale Law Journal author, became a national figure in 2017 with her argument that Amazon is too powerful because, you know, it's too powerful.

No wonder that Facebook is frantically doing penance for Russian ads and fake news during the 2016 election. Or that Google has now become the biggest corporate lobbyist in Washington. Or that three of the finalist sites picked by Amazon in its headquarters search are in the Washington area, where Mr. Bezos already owns the Washington Post and clearly craves to increase his sway with the political class.

The tech giants were all but pushed into being influential voices in the net-neutrality fight, not because they believed in the cause, but because anything that centralizes control in Washington naturally appeals to companies with the biggest lobbying clout. At the same time, their greatest fear is Congress deciding their own platforms should be treated as "public utilities" too. To be absorbed in rent-seeking battles is increasingly the fate of America's established tech giants. That's one more reason to expect the next truly big thing to be invented by someone else.

Europe's Youth Have Good Reason to Be Mad

Ferdinando Giugliano

Generational inequality has been growing and is now a major challenge to European growth and social cohesion.

Few topics are as discussed at Davos as “inequality.” Business leaders and bankers take a great interest in debating how to ensure that globalization works for the many and not just for the few. This isn't pure altruism, of course: They understand that a populist backlash could be devastating for their businesses too.

These conversations – much like those that take place outside the World Economic Forum – too often fail to specify what kind of inequality governments ought to address. For example, few mention that global inequality has fallen consistently over the last three decades, thanks to the rise of emerging markets, and China in particular. A recent study by the World Bank has also shown that twice as many countries saw inequality decrease than increase. These findings mean that we need to be a lot more precise about inequality if we want governments and businesses to take the right kind of action to address it.

The International Monetary Fund therefore deserves praise for a study about inequality in Europe which was launched at Davos on Wednesday. Rather than talking about disparities generally, the Fund chose to concentrate this particular report on inequalities between generations. It's hard to see EU countries becoming fairer unless they rebalance their tax spending priorities away from the oldies and toward the young.

The IMF report starts from a stark finding: Income inequality in the EU27 -- usually represented by a measure known as the Gini coefficient -- has remained broadly stable over the last 10 years. In contrast, generational inequality has risen sharply: The share of over-65s and people aged 18 to 24 at risk of poverty was roughly the same in 2005 at around 20 percent. Since then, it has fallen to around 15 percent for the senior, and risen to nearly 25 percent for the young.

This finding shows that the European social safety net has done a very good job at protecting pensioners during the crisis. However, it has failed to support those who went through an era of high unemployment and wage stagnation. As Christine Lagarde, IMF managing director, put it, “Without action, a generation may never be able to recover.”

The IMF has a long list of measures which could potentially help younger generations. These range from cutting taxes and social security contribution for younger workers, particularly those who earn less, to spending more on education and training. Some of these proposals are also rather ambitious: For example, the IMF says countries could lift wealth taxes. Since the oldies typically hold more assets, which they have accumulated throughout their working lives, this is a way to ensure the tax burden falls more heavily on them, while minimizing the risk of discouraging work.

Still, the IMF is less radical than it could be. The report addresses the importance of redirecting social spending towards benefits for those of working age, which can help those who face a spell of unemployment or precarious work. As the report notes, 60 percent of the increase in social spending in the EU since the crisis has been directed at old-age benefits.

However, the IMF falls short of demanding that governments reduce excessive pension benefits, when they are much higher than the contributions a worker has paid in. In her presentation at Davos, Lagarde preferred to talk about the need to make pension systems more sustainable, for example raising the retirement age together with life expectancy. But since governments typically only introduce a pension reform after a long transition period, these changes could end up placing the weight of the adjustment – once again – on today's youth.

Of course, asking pensioners to accept less will not be easy. Across Europe, older voters tend to turn up to the polls in greater numbers than their juniors. And since in several instances, younger voters favor anti-establishment parties such as the Five Star Movement in Italy, mainstream forces may have even fewer incentives to act. Still, if EU governments are serious about addressing inequality, they must address youth poverty and exclusion. Concentrating on the wrong kind of disparity is like ignoring the issue completely.

Our Hackable Political Future

By Henry J. Farrell and Rick Perlstein

Imagine it is the spring of 2019. A bottom-feeding website, perhaps tied to Russia, “surfaces” video of a sex scene starring an 18-year-old Kirsten Gillibrand. It is soon debunked as a fake, the product of a user-friendly video application that employs generative adversarial network technology to convincingly swap out one face for another. It is the summer of 2019, and the story, predictably, has stuck around — part talk-show joke, part right-wing talking point. “It’s news,” political journalists say in their own defense. “People are talking about it. How can we not?” Then it is fall. The junior senator from New York State announces her campaign for the presidency. At a diner in New Hampshire, one “low information” voter asks another: “Kirsten What’s-her-name? She’s running for president? Didn’t she have something to do with pornography?”

Welcome to the shape of things to come. In 2016 Gareth Edwards, the director of the Star Wars film “Rogue One,” was able to create a scene featuring a young Princess Leia by manipulating images of Carrie Fisher as she looked in 1977. Mr. Edwards had the best hardware and software a \$200 million Hollywood budget could buy. Less than two years later, images of similar quality can be created with software available for free download on Reddit. That was how a faked video supposedly of the actress Emma Watson in a shower with another woman ended up on the website Celeb Jihad. Programs like these have many legitimate applications. They can help computer-security experts probe for weaknesses in their defenses and help self-driving cars learn how to navigate unusual weather conditions. But as the novelist William Gibson once said, “The street finds its own uses for things.” So do rogue political actors. The implications for democracy are eye-opening.

The conservative political activist James O’Keefe has created a cottage industry manipulating political perceptions by editing footage in misleading ways. In 2018, low-tech editing like Mr. O’Keefe’s is already an anachronism: Imagine what even less scrupulous activists could do with the power to create “video” framing real people for things they’ve never actually done. One harrowing potential eventuality: Fake video and audio may become so convincing that it can’t be distinguished from real recordings, rendering audio and video evidence inadmissible in court. A program called Face2Face, developed at Stanford, films one person speaking, then manipulates that person’s image to resemble someone else’s. Throw in voice manipulation technology, and you can literally make anyone say anything — or at least seem to. The technology isn’t quite there; Princess Leia was a little wooden, if you looked carefully. But it’s closer than you might think. And even when fake video isn’t perfect, it can convince people who want to be convinced, especially when it reinforces offensive gender or racial stereotypes.

Another harrowing potential is the ability to trick the algorithms behind self-driving cars to not recognize traffic signs. Computer scientists have shown that nearly invisible changes to a stop sign can fool algorithms into thinking it says yield instead. Imagine if one of these cars contained a dissident challenging a dictator. In 2007, Barack Obama’s political opponents insisted that footage existed of Michelle Obama ranting against “whitey.” In the future, they may not have to worry about whether it actually existed. If someone called their bluff, they may simply be able to invent it, using data from stock photos and pre-existing footage. The next step would be one we are already familiar with: the exploitation of the algorithms used by social media sites like Twitter and Facebook to spread stories virally to those most inclined to show interest in them, even if those stories are fake.

It might be impossible to stop the advance of this kind of technology. But the relevant algorithms here aren’t only the ones that run on computer hardware. They are also the ones that undergird our too easily hacked media system, where garbage acquires the perfumed scent of legitimacy with all too much ease. Editors, journalists and news producers can play a role here — for good or for bad.

Outlets like Fox News spread stories about the murder of Democratic staff members and F.B.I. conspiracies to frame the president. Traditional news organizations, fearing that they might be left behind in the new attention economy, struggle to maximize “engagement with content.” This gives them a built-in incentive to spread informational viruses that enfeeble the very democratic institutions that allow a free media to thrive. Cable news shows consider it their professional duty to provide “balance” by giving partisan talking heads free rein to spout nonsense — or amplify the nonsense of our current president. It already feels as though we are living in an alternative science-fiction universe where no one agrees on what is true. Just think how much worse it will be when fake news becomes fake video. Democracy assumes that its citizens share the same reality. We’re about to find out whether democracy can be preserved when this assumption no longer holds.

Gardening leave: why are offices turning into botanical spaces?

Josephine Moulds

Most offices have a few plants dotted around the place. Some companies, however, like to take things to extremes. Amazon has treehouses inside its offices, Microsoft employees work in treehouses in the woods; while Timberland's headquarters has gardens with orchards.

The benefits of bringing plants in workspaces are well documented. Researchers have found that as well as brightening up the office environment, plants can reduce sick days and stress. Danica-Lea Larcombe from Australia's Edith Cowan University wrote in the online publication *The Conversation* that indoor plants can "scrub" the air of bacteria; remove harmful chemical compounds released by cleaning products; and improve people's moods. Companies of all sizes are taking note. Steve Taylor, project director at office designer Peldon Rose, helped create a botanical meditation area for digital media company Essence's London office. "We created a mini oasis out of three or four trees; it had benches covered in moss; the walls were clad in moss. As soon as you opened the doors, it immediately symbolised that this was a space to relax in, to squish your toes into the grass, lie back and enjoy nature," he says.

The Essence meditation room has real plants. Taylor says many companies do not, however, want the added responsibility of keeping plants alive. "I've worked with some clients who had living walls built by other companies, and their living wall very quickly became a dead wall, which is not a very nice symbol of your organisation. So you have to get the right balance."

There is the added complication of allergies when introducing real plants into the office space. Nicolas Tye Architects in Bedfordshire had to empty its offices of plants when one of its workers had an allergic reaction to them. Instead of the plants, it now has vast windows overlooking the countryside and a workplace vegetable garden. Nicolas Tye says some staff are reluctant to engage in the gardening. "That includes me as well. I do very long hours, I don't really have time for all sorts of things." But, he says: "You see the difference in people being involved in non-work stuff around you."

There are tangible benefits to a company's bottom line from enriching the workspace with plants or other elements, says Dr Craig Knight of the University of Exeter. He undertook research to investigate the prevailing wisdom of the so-called lean space: the idea that if there is nothing in the space except the job to be done, workers will concentrate and be more productive.

He explains: "It didn't make a whole lot of sense scientifically because there is no animal on the planet that thrives in a lean space. Why should a human being be any different? So we tested it and it doesn't work at all. It's an entirely toxic system." He and a group of academics then undertook another experiment with one of the big four accountancy practices, which was a firm advocate of the stark, lean workspace. The researchers introduced £10,000 worth of plants into its offices, which Knight says, boosted productivity by around 15%. "We found that when people put plants or any other form of enrichment into a workspace, they felt better and performed better, like any other animal. When you said to these people, 'Why don't you develop the space as you see fit,' they performed best of all there."

Knight applauds the introduction of nature trails, workplace allotments and anything that encourages engagement with the workspace, but warns against infantilising the workforce or treating workplace decor as a cure-all. "We have a parental managerial system where they either put workers in these horrible toxic spaces, or they're kind and put them in places where they can garden. But it's all part of the same continuum. The best workspace is a space where people say, 'Why don't you do what you think is best for the job?'"

Money Penny, a switchboard services company based in Wrexham, did just that when it undertook its £15m office development, surveying staff about what their dream office would be. The resulting workspace has plenty of plants, both real and fake; natural ventilation instead of air conditioning; and huge windows on to a duck pond, orchard and woodland. There are nature trails in the seven acres of landscaped grounds, and a treehouse meeting room inside the 91,000 sq ft building. Ed Reeves, who co-founded Money Penny, says the plants enhance the workspace. "The more emphasis we put on to the working environment being a calm and productive space, the better attendance records we have." The plants inside the building also serve a practical purpose in terms of sound absorption. "We're obsessed with having a quiet, calm working environment. There's no doubt at all that the planting plays a very big part in that."

Tesco equal pay claim could cost supermarket up to £4bn

Sarah Butler

Lawyers say female shopfloor workers earn up to £3 an hour less than male warehouse staff

Tesco is facing a demand for up to £4bn in back pay from thousands of mainly female shopworkers in what could become the UK's largest ever equal pay claim. A law firm has launched legal action on behalf of nearly 100 shop assistants who say they earn as much as £3 an hour less than male warehouse workers in similar roles. Up to 200,000 shopfloor staff could be affected by the claim, which could cost Tesco up to £20,000 per worker in back pay over at least six years.

Tesco warehouse staff earn from about £8.50 an hour up to more than £11 an hour while store staff earn about £8 an hour in basic pay, according to the claim. The disparity could mean a full-time distribution worker earning over £5,000 a year more than store-based staff.

The legal firm behind the action, Leigh Day, has begun submitting claims through Acas, the conciliation service, as the first step before heading to the employment tribunal. The case follows similar actions against Asda and Sainsbury's which are working their way through the employment tribunal process. Nearly 20,000 people are involved in the Asda case, where the latest ruling backed the shopworkers' right to compare their jobs to employees – mainly men – working in distribution centres. Asda is due to appeal against that ruling at the court of appeal in October. About 1,000 workers are involved in the Sainsbury's action.

Unequal pay has also become a big battleground in the public sector, with female cleaners and dinner ladies taking legal action over claims that they were paid less than binmen or male street cleaners. Birmingham city council agreed to pay more than £1bn to settle the claims of tens of thousands of women which stretch back over many years.

Paula Lee, a Leigh Day lawyer who is representing the Tesco women, said: "We believe an inherent bias has allowed store workers to be underpaid over many years. "There might be lifting and carrying in the distribution centre but there is also lifting and carrying in shops as well as dealing with customers asking questions and handling money." She said that men working in roles that have historically been predominantly carried out by women – jobs grouped under the five Cs of caring, cleaning, clerical, cashiering and catering – also tended to be underpaid. "It is nuanced and complex but we do need to change how we measure work and value work," she said.

Kim Element, 56, who has worked as a shop assistant at Tesco for 23 years and is currently a merchandising assistant in its Hemel Hempstead store's clothing department, said she had decided to take part in the legal action after taking a pay cut recently. She was upset to find that the mostly male warehouse workers continued to receive double pay for Sunday shifts while she and other long-serving shop staff were recently forced off that rate on to time and a half. Mindful of undercutting colleagues, they took the pay cut, worth about £200 a month to Element, to bring their pay in line with newer shopfloor staff. "If it's going to be fair it should be fair across the board," Element said. "It makes me feel highly disappointed. If we are doing a job of equal value we should be paid accordingly. We are the face of Tesco. In the warehouse they don't deal with customer inquiries. We build relationships with customers and that is just one aspect of the job. We are still pulling cages of stock, unbagging clothes."

Pam Jenkins, 57, has worked for Tesco for 26 years and currently works mainly nights on the shopfloor in Tesco's Baldock store in Hertfordshire. She is paid about £8 an hour and also recently lost out when Tesco reduced premium pay rates for Sunday shifts. Her job involves collecting stock from the warehouse, stocking shelves and dealing with customers. "It is quite hands-on manual work," she said.

Jenkins said: "Tesco is a good employer. They just need to get their facts right. They say they want everybody to be equal. It should be equal pay for equal value. I do feel let down and a bit miffed to say the least."

Tesco said it would consider any changes to pay in partnership with Usdaw, the trade union which represents the majority of its shopfloor staff. The supermarket said it was yet to receive details of any claim. Tesco said: "We are unable to comment on a claim that we have not received. Tesco has always been a place for people to get on in their career, regardless of their gender, background or education, and we work hard to make sure all our colleagues are paid fairly and equally for the jobs they do."

The slaughter in Syria should outrage us. Yet still we just shrug

By Jonathan Freedland

Trump, Brexit, even Strictly – we focus on anything rather than the bloodletting. That makes us complicit in these atrocities

Almost anything is more interesting than the massacre of civilians in Syria. Just look at today's front pages. The Guardian leads on the slaughter of unarmed residents in the Damascus suburb of eastern Ghouta, but for the rest it's a mix of continuing scandals in international aid charities, the tax record of a newly appointed financial regulator, and Brendan off Strictly having an unauthorised waltz with Camilla.

Against all that, the bloodbath in eastern Ghouta is deemed too dull to compete. Sure, the government of Bashar al-Assad may have pounded the rebel-held area so hard that it killed 194 people in 40 hours, many of them children. It may have targeted seven hospitals in two days, repeatedly hitting medical workers as they sought to rescue the injured and dying. And yes, this may signal the escalation of a siege that has denied supplies to a population of 390,000 for months, squeezing them between bombardment and starvation. All that may be meticulously documented by the UN. But who, if we're honest, gives a damn?

The Guardian may have Syria on the front page today, but there's no moral high ground here for any of us. This bloodletting has gone on for seven years now, and for most of that time most of us – politicians, media, public – have looked the other way. I look back at some of the things that have exercised me while this murder has continued day after day – at Donald Trump's tweets, say, or the twists and turns of Brexit – and I know I'm part of this global shrug in the face of atrocity. We should not kid ourselves. This silence of ours is complicity. The absence of noisy outrage has been a signal to Assad: keep on doing what you're doing – no one's going to stop you. If I were him, an occasional uptick in condemnation – with an enlightened Scandinavian denouncing me on the radio, or Unicef issuing a blank statement because “we no longer have the words to describe children's suffering” – would be just fine. Because I would know that this brief flurry of concern would pass, and I would soon be allowed to return to the killing, just so long as I kept the daily numbers at a level everyone could safely ignore.

I would have learned that lesson in April last year, when I crossed the line by using chemical weapons against the civilians of Idlib province, gassing children, and the only consequence was a limited US cruise missile strike on a Syrian airfield. So long as I wasn't too blatant, and kept the murder within agreed limits, I would be left alone. What explains this global indifference? Partly it's because those of us far away have had our own, legitimate preoccupations. Trump and Brexit are not mortal threats on a par with the barrel bombs of Damascus, but they have convulsed America and Britain alike. In recent days, it has not helped that the very aid organisations we might ordinarily expect to sound the alarm about an emergency such as Syria have been shaken by scandal and forced to look inward.

Part of it, surely, is that it has just gone on so long. For seven years we have known that a civil war is raining horror on Syria, and we've got used to it. The sound of Syrian children choking to death has become the background noise of this decade. And, crucially, we don't know what to do about it. I've written before that one of the consequences of the disastrous Iraq invasion of 2003 was the discrediting of so-called humanitarian interventionism – the belief that sometimes it is right to stop regimes from murdering their own people. With no one calling for intervention, with no public debate about what can be done to stop the slaughter, we soon stop talking about the slaughter altogether. It slips out of view.

But paying attention, making a noise, has value. Perhaps there's no point addressing Assad, or for that matter the rebel groups shelling government-held neighbourhoods of Damascus. But Assad's backers and enablers, the governments of Russia and Iran, are surely not beyond reach. We know from Moscow's intense efforts on Facebook and Twitter, as well as the millions it pours into RT, its TV propaganda channel, that it is, at the very least, sensitive to western opinion. This war is not winding down. It is not quietly burning itself out. On the contrary, those watching it close up say it is escalating. For Ghouta, Monday was the most lethal day of the last three years. Until now the only message we have sent Russia, Iran and Syria is a silent shrug. If we want the killing to stop, we need to say so.

Instagrammers are sucking the life and soul out of travel

Rhiannon Lucy Cosslett

A recent trip to Sri Lanka reminded me of that well known Buddhist proverb: “If you visit a temple but do not take a selfie, did it actually happen?” At these sacred sites, tourists are free to take photographs – as indeed I saw a delegation of enthusiastic monks doing at the Temple of the Sacred Tooth Relic in Kandy – but you are asked to please not pose with statues of the Buddha, or be photographed with your back to him. Naturally, I observed several western tourists, most of them young, ignoring this request.

The Instagrammability of a destination is apparently now the number one motivation for booking a holiday for millennials. The eternal quest for social approval, which the platform was accused of taking advantage of this week by “withholding” likes from certain users to encourage them to log in more frequently – a charge Instagram denies – continues apace. I joined Instagram relatively recently, mainly to look at travel photos of places and people around the world, a cheering endeavour in these cold, dark Brexit times, but was disappointed how many of the photos seemed to follow a particular format. A thin, blonde, white girl stands in a floaty dress, her back to the viewer, in a seemingly preordained beautiful location. Off camera a queue of other “influencers” wait patiently to get the perfect shot.

Many of them are paid in brand endorsements and partnerships with luxury travel companies. Then you have the “arses on tour” – bums with a backdrop, basically (and if there is a sunset peeking through your thigh gap, even better). At some hotels, you can now even pay extra for your very own “Instagram butler”, who will show you all the most picturesque spots and help you and your bum conduct your own photoshoot. These Instagrammers are collectively sucking the joy and spontaneity out of travel photography, and for those unfortunate enough to bump into them abroad, possibly travel itself. We must pity the poor locals, who have to put up with them.

Consider the train I took last week from the mountain village of Ella to Sri Lanka’s cultural capital of Kandy. Widely regarded to be one of the most beautiful train journeys in the world, it traverses verdant mountain passes, waterfalls, and tea plantations. But many of the passengers under 35 were interested only in obtaining the same photograph – lifted right from Instagram – of themselves hanging barefoot out of the open doors of the train, with significant risk to life and limb. Meanwhile, in contrast, an older couple sitting in our carriage wondered aloud what on earth the young people were playing at and spent the journey watching the scenery go by through the window.

Tourists have always taken photographs. Like graffiti, it’s a very human way of saying “I was here”. But in the pre-digital age, because of the expense of film as well as high shooting ratios, you were lucky if you ended up with one usable picture. Now “influencers” can take as many photographs as they need, photoshopping and filtering until they are able to post the perfect advertisement (for that indeed is what these images are). The centering of the self to such an extent is new too, and at the expense of knowledge, exploration and adventure.

When most travel photographs on Instagram begin to look like fashion editorials you have to wonder whether anyone is learning anything. And when people are taking idiotic risks such as hanging out of fast moving trains or proffering food to tempt wild animals into shot, all for the sake of a photo that isn’t even an original composition, you might start to think that we’re approaching the end times.

It all goes to show how ineffective the internet can be as a lens for human experience, especially within a capitalist system. You might think social media would diversify the range of images we see, yet the most popular users operate according to a strict schema that takes full advantage of the relevant algorithms (creative, fascinating accounts are still there, but said algorithms make them harder to find). And it’s not just travel – it’s interiors, fashion, weddings, food, children. Social media encourages the memeification of human experience. Instead of diversity we see homogeneity. It’s extremely boring.

There is, of course, an irony to being a tourist who is complaining about other tourists. And we all fall victim to the odd corny snap every now and again. Live and let live, you might say. We all just want to see the world. Some of us just want to see it without someone’s peachy backside blocking the view. On the plus side, while the easily influenced will see these pictures and flock to the lupin fields of New Zealand or Tegallalang in Bali, or to selfie-stick the sunset in Santorini, those of us too grumpy, paunchy and tired to travel fashionably might be left in peace.

Britain's imperial fantasies have given us Brexit

Gary Younge

As Theresa May is discovering, the UK's overblown sense of its place in the world has led to overplaying our hand with the EU

When the outgoing German ambassador to Britain claimed this week that Brexiteers were fixated on the second world war, he was on to something. Referring to the popularity of films such as *Darkest Hour* and *Dunkirk*, Peter Ammon said: "History is always full of ambiguities and ups and downs, but if you focus only on how Britain stood alone in the [second world] war, how it stood against dominating Germany, well, it is a nice story, but does not solve any problem of today." (If the second world war taught us anything, it was that you couldn't stand alone. They weren't called "the allies" for nothing.) There were some sound reasons for voting to leave the EU – although the campaign was rarely fought on them, and wasn't won because of them. And this nostalgia for a particular, and peculiar, version of our history long preceded Brexit.

But Ammon was only half right. For while the Brexit vote was certainly underpinned by a melancholic longing for a glorious past, the era it sought to relive was less the second world war than the longer, less distinguished or openly celebrated period of empire. For if memories of the war made some feel more defiant, recollections of empire made them deluded. Our colonial past, and the inability to come to terms with its demise, gave many the impression that we are far bigger, stronger and more influential than we really are. At some point they convinced themselves that the reason we are at the centre of most world maps is because the Earth revolves around us, not because it was us who drew the maps.

It was through this distorted lens ("Let's put the Great back in Great Britain") that a majority voted to leave. Ammon puts the fantasies down to war stories from Brexiteers' childhoods. "Obviously every state is defined by its history, and some define themselves by what their father did in the war, and it gives them great personal pride." But British history didn't stop after the war. Empire was more recent and, for a considerable element of the Brexiteers' campaign, more personal.

Douglas Carswell, the sole Ukip MP during the referendum, was raised in Uganda; Arron Banks, who bankrolled Ukip and the xenophobic Leave.EU campaign, spent his childhood in South Africa, where his father ran sugar estates, as well as in Kenya, Ghana and Somalia; Henry Bolton, the current head of Ukip, was born and raised partly in Kenya; Robert Oxley, head of media for Vote Leave, has strong family ties to Zimbabwe. One can only speculate about how much impact these formative years had on their political outlook, but it would be odd to conclude they didn't have any.

The past 18 months has illustrated the rapid journey from hubris to humiliation

But if echoes of empire reverberated through the campaign, they have also framed our negotiating strategy. The past 18 months have illustrated the journey from hubris to humiliation. For a couple of generations, we have seen our attributes and others' weaknesses through the wrong side of a magnifying glass; now our diminished state is becoming fully apparent, and, like Boris Johnson, the foreign secretary, reciting Kipling in Myanmar, we are struggling to adjust. This awakening would be funny (abroad they find it hilarious) if it were not so consequential. Johnson told the Commons the EU27 could "go whistle" for an extortionate Brexit bill. They whistled; now we will cough, to the tune of £35-40bn.

During her 2017 election campaign, Theresa May boasted about being a "bloody difficult woman". "The next man to find that out will be Jean-Claude Juncker," she claimed. In fact Juncker, the president of the European commission, and his team have found May more overwhelmed and befuddled than overwhelming and belligerent.

A change of leader won't make this right. Lacking authority and coherence, haemorrhaging relevance and credibility, May is a faithful reflection not only of her government but of the country at this moment. Brexiteers have ostensibly got what they want: Brexit. They assumed we could dictate the terms; we can't. They assumed we could just walk away; we can't. They had no more plans for leaving than a dog chasing a car has to drive it. They are now finding out how little sovereignty means for a country the size of Britain in a neoliberal globalised economy beyond blue passports (which we could have had anyway). What we need isn't a change of leader but a change of direction.

"France and England will never be powers comparable to the United States," the West German chancellor, Konrad Adenauer, told the French foreign minister. "Not Germany either. There remains to them only one way of playing a decisive role in the world: that is to unite Europe ... We have no time to waste; Europe will be your revenge."

Once again, Britain has overplayed its hand. Preferring to live in the past rather than learn from it, we find ourselves diminished in the present and clueless about the future.

The Guardian, 3 February 2018

Europe's populists are waltzing into the mainstream

Some European politicians saw 2017 as a welcome setback to the rise of populism across the continent. After a 2016 in which support for parties like the SD hit record highs, and England and Wales voted for Brexit, polls showed the populists' popularity falling. Marine Le Pen of the Front National (FN) lost the French presidential election to Emmanuel Macron; her party fared poorly in the subsequent elections for the National Assembly. The Alternative for Germany (AfD) made it into the Bundestag for the first time, but not to a degree that truly threatened moderate politics. Two far-right "Freedom" parties, the PVV in the Netherlands and the FPÖ in Austria, did worse than expected in their national elections.

The continuing rise of populism, though, is something to measure decade by decade, not year by year. The financial crisis and the large influx of refugees contributed to a spike, but Euro-populism has been growing quite steadily since the 1980s. According to a new study by Yascha Mounk of Harvard University and others for the Tony Blair Institute, the populist vote in an EU state was, on average, 8.5% in 2000. In 2017 it was 24.1%. This quantitative increase is producing qualitative shifts in the continent's politics. As Hässleholm shows, populists are no longer shunned by the democratic mainstream as a matter of course; they are increasingly called into coalitions, co-opted and copied.

Defining populism is notoriously subjective, but political science provides some guidelines. Jan-Werner Müller of Princeton University singles out its exclusive claim to represent a "morally pure and fully unified people" betrayed by "elites who are deemed corrupt or in some other way morally inferior". Populism attacks judges, journalists and bureaucrats it deems not on the side of the people. It speaks the language of silent majorities, national humiliations, rigged systems; of "We are the people" (Germany's anti-Islam PEGIDA movement), "Take back control" (Brexiters), "This is our country" (the FN)—and, elsewhere, "Make America great again". Cas Mudde of the University of Georgia notes that populism is a "thin" ideology. It can have hosts on the left as well as the right and even create hybrids of its own, such as the Five Star Movement (M5S) which is topping Italian opinion polls in the run-up to the general election in March. It can also be practised by politicians whose parties are not avowedly populist. Such politicians can subscribe to a more or less monolithic and exclusive vision of "the people"; they can defend minority groups, the judiciary and the free press to a greater or lesser extent; they can choose honesty about policy trade-offs over convenient scapegoats more or less frequently. Their parties can inch along the spectrum over time. So can whole societies.

Take Hungary. The Fidesz party led by Viktor Orbán, the country's authoritarian prime minister, grew out of the anti-communist movement and governed the country as a fairly conventional conservative party around the turn of the century. But partly under pressure from Jobbik, an extreme right-wing party founded in 2003, and increasingly citing "the will of the people", Mr Orbán has taken to demonising immigrants and minorities (particularly Muslims), attacking the judiciary and disenfranchising sources of dissent. He is demanding that, at the parliamentary election to be held in April, the voters give him a mandate to take on George Soros, the Hungarian-born, America-based billionaire who founded the Central European University in Budapest and who, Mr Orbán claims, has a secret plan to flood the country with Muslims.

Elsewhere the entangling of mainstream parties with populist policies and the populist style takes place in subtler ways. The Moderates might have joined a stodgily broad government of the centre right and left. Such governments have become much more common across the continent. Today Germany, Italy, the Netherlands and Spain offer variations on this muddled-middle theme, some of them formal coalitions, some looser toleration agreements. Such arrangements are unappealing for ambitious politicians. They also pep up populist rhetoric by proving that the political class is indeed all in it together. The other two options available to the Moderates were to co-opt the populists or to try to steal their voters. Such possibilities do more than anything to normalise populist parties. Austria, Bulgaria, Denmark, Finland, Latvia, the Netherlands and Norway have all now seen mainstream parties govern with the formal or informal support of populist parties. In Slovakia a government led by the centre left has a similar arrangement. The number of European governments with populists in their cabinets has risen from seven to 14 since 2000. Their ranks may soon be joined by the Czech Republic and Denmark. This all suggests the populist tide will continue to rise.

Going hand in hand with normalisation-by-coalition—in part its cause and in part its effect—is a growing professionalism and a professed moderation among the populists. In their early days they were often closely associated with frank racism, as with the anti-Semitism of the FN in the days of Ms Le Pen's father; such sentiments are now increasingly kept at arms length (though in the case of Mr Orbán's attacks on Mr Soros not very convincingly). They were also chaotic and split-prone. Some, like the UK Independence Party (UKIP), still are. Others, tasting or scenting power, have been getting their act together. The FPÖ in Austria is an example. It was shambolic during its previous turn in government, from 2000 to 2007, but it returned to ministerial power last December with a more sober image, having made efforts to distance itself from the right-wing Austrian social networks known as "fraternities".

Politics of grumpy old men turns me off

Libby Purves

Tomorrow marks a century since British women got the vote. Not all women: those over 30 owning property or married into it, or graduates in a university constituency. For men, the property qualification ended and the voting age went down to 21. The electorate tripled: six centuries after Simon de Montfort we earned the name of democracy. It was another decade before women could vote at 21, but during that time about a dozen were elected as MPs. Newspaper photographs of 1919 show Nancy Astor surrounded by the bald heads and walrus moustaches of her peers: a new dawn.

Yet somehow progress slowed. Not female progress in general: property and employment rights and protection from violence developed well. But the exhilarating engagement of women in politics faded. Only five years ago Helen Pankhurst, great-granddaughter of the suffragette Emmeline, observed that across the world's democracies Britain scored low in the proportion of women MPs: 64th, below most European countries and indeed Kyrgyzstan and Sudan. The numbers are up now, to 39th, although still below Scandinavia, ten African nations and much of Latin America.

The 2017 election did break records, making a third of the Commons female, but after a century one-in-three is not impressive. And fewer women than men vote, despite all the pink buses and patronising promises clumsily thrown out at election time. It is worth wondering whether something in British politics tends to repel us. Not all of course: many of those 208 MPs are impassioned, we have a woman PM, the BBC has a female political editor, and the media use many women commentators. But step outside the Westminster bubble and you find a widespread if sheepish shrug of disillusion. It isn't uncaring. Look around and you find our sex active in charities, campaigns, local causes and community projects. But talk with women outside the activist or local-government world and you meet that shrug — the sense that it's a bear pit and (inaccurately) that nothing ever changes. Party membership is very male: 71 per cent for the Conservatives, 63 per cent in the Lib Dems. Labour and the SNP do better, but still under half their members are women. Is it a sense of inferiority, inherited from patriarchal centuries? Or perhaps a reluctance to be insulted? When women do take their share of political leadership they need thicker skins than men. Abuse is personal: not just "feminazi" or "bossyboots", or lines about witches or handbagging, but the full-on misogyny of physical contempt. Ask Diane Abbott how it felt to be described as "an ape in lipstick" or to have the Brexit secretary jeering that he wouldn't touch her because he's "not blind". Ask the Haringey council leader Claire Kober, who said on resigning that the only thing worse than the sexism in Labour is the antisemitism.

It could also be that women accustomed to quelling disputes between toddlers and adolescents, hear the deep "yeaarrrr" and playground noises of PMQs and turn away. By and large the female instinct seems to be towards pacification, especially of men. I always loathed the "Grumpy Old Men" craze, suspecting that behind every discontented old Meldrew there was a woman desperately trying to make everything all right. British politics is tribal, warlike, jeering, reflecting a Millwall-ish need to cheer for your team and jeer at the others. A lot of women simply don't like that, don't feel it necessary, dislike extremes and long for consensus. A few are natural Boudicas (Margaret Thatcher needed to become one) but a mellower woman entering the political fray may feel that the only hope is to man-up and cry with Lady Macbeth: "Unsex me here, and fill me from the crown to the toe top-full of direst cruelty. Make thick my blood . . . Come to my woman's breasts and take my milk for gall!"

There are arguments against this simplification. Carolyn Bennett, a Canadian liberal MP and doctor, wrote approvingly about the usefulness of women's instincts for flat authority structures and inclusive decision-making, citing the book *The Female Brain*, which claims for us "a near psychic capacity to read faces and tone of voice for emotions and states of mind. The ability to defuse conflict. All this is hardwired into the brains of women." But other feminists object that this is another form of sexism and we should learn to be as tough and rude as any man. After I wrote a temperate column about the #MeToo protests, a male friend gently said "all human progress depends on overreaction". He's not wrong: those window-smashing suffragettes would agree. "Near psychic" sensitivity and compromise rarely stops tyrants or injustices. But machismo and shouting often fail too. Oh, there I go, seeing both sides again — typical woman, hopeless. But my private suspicion at this centenary moment is that a great many of us females are natural centrists. A bit small-c conservative because we fear that revolutions bring trouble; a bit socialist because we worry for the weak. And with Labour lurching to the left and the Tory party showing all the dignity and resolution of ferrets in a sack, this should be the Lib Dems' moment to triumph in a gender-balanced centre. But Brexit is blocking out the sun and the Lib Dem leadership's droning fixation on referendum-reversal hardly makes their magnetism overwhelming. Not even to us sappy, middle-of-the-road, oversensitive everywomen.

Icelandic language battles threat of 'digital extinction'

Jon Henley

Unlike most languages, when Icelandic needs a new word it rarely imports one. Instead, enthusiasts coin a new term rooted in the tongue's ancient Norse past: a neologism that looks, sounds and behaves like Icelandic. The Icelandic word for computer, for example, is *tölva*, a marriage of *tala*, which means number, and *völva*, prophetess. A web browser is *vafri*, derived from the verb to wander. Podcast is *hlaðvarp*, something you "charge" and "throw". This makes Icelandic quite special, a language whose complex grammar remains much as it was a millennium ago and whose vocabulary is unadulterated, but which is perfectly comfortable coping with 21st-century concepts. But as old, pure and inventive as it may be, as much as it is key to Icelanders' sense of national and cultural identity, Icelandic is spoken today by barely 340,000 people - and Siri and Alexa are not among them. In an age of Facebook, YouTube and Netflix, smartphones, voice recognition and digital personal assistants, the language of the Icelandic sagas – written between AD1200 and 1300 – is sinking in an ocean of English. "It's called 'digital minoritisation'," said Eiríkur Rögnvaldsson, a professor of Icelandic language and linguistics. "When a majority language in the real world becomes a minority language in the digital world."

Secondary school teachers already report 15-year-olds holding whole playground conversations in English, and much younger children tell language specialists they "know what the word is" for something they are being shown on the flashcard, but not in Icelandic. Because young Icelanders in particular now spend such a large part of their lives in an almost entirely English digital world, said Rögnvaldsson, they are no longer getting the input they need to build a strong base in the grammar and vocabulary of their native tongue. "We may actually be seeing a generation growing up without a proper mother tongue," he said. The range and volume of English readily accessible to Icelanders has expanded exponentially, most of it more relevant and more engrossing than ever before, said Iris Edda Nowenstein, a PhD student working with Rögnvaldsson on an exhaustive three-year study of the impact of digital language contact on 5,000 people. "Once, outside school you'd do sport, learn an instrument, read, watch the same TV," she said. "Now on phones, tablets, computers, TVs, there are countless games, films, series, videos, songs. You converse with Google Home or Alexa. All in English."

English may not be the enemy – in principle, multilingualism is obviously a good thing – but its sheer weight and variety online are overwhelming, Nowenstein said. Nor is Icelandic alone. As many as 21 European languages are potentially at risk of "digital extinction", according to research. Icelandic's relatively few speakers are also unusually proficient in English and enthusiastic early adopters of new technology. "The obvious worry is that young people will start to say: 'Okay, so we can't use this language abroad. If we're not using it much in Iceland either, then what's the point?'" Rögnvaldsson asked.

In what amounts to a perfect storm for such a small language, it is also under siege in the real world. The island welcomed almost 2 million foreign visitors last year, four times the 2008 figure, and immigrants now make up 10% of the population, a five-fold increase in two decades. Mostly EU workers on short-term contracts in fish-processing or tourism, new residents rarely need to master Icelandic, with its three genders, four cases and six verb forms. In the bars, restaurants and shops of downtown Reykjavík, it can be a struggle for locals to get served in their native language. Online, however, is the biggest concern. Apart from Google – which, mainly because it has an Icelandic engineer, has added Icelandic speech recognition to its Android mobile operating system – the internet giants have no interest in offering Icelandic options for a population the size of Cardiff's. "For them, it costs the same to digitally support Icelandic as it does to digitally support French," Rögnvaldsson said. "Apple, Amazon ... If they look at their spreadsheets, they'll never do it. You can't make a business case." Max Naylor, a UK academic also involved in the study, said he had written to Apple several times but had never received a reply. "We're not expecting a fully-functioning operating system, but the hope is that they will at least collaborate," he said. In the meantime, Naylor said, literacy rates among Icelandic children are falling as their vocabulary shrinks. "You could soon have a situation where Icelanders will be native in neither Icelandic or English," he said. "When identity is so tied up with language ... it's hard to know what that will mean."

The Guardian, 24 January 2018

ROBOTS WILL HELP US EMBRACE HUMANITY, NOT LOSE IT

By Simon Rogerson

We're on the cusp of a fourth industrial revolution. First came the steam trains, followed by electricity and after that, information technology—each transforming our working practices and automating jobs previously performed by humans.

These days of course, it is robotics, artificial intelligence and machine learning driving the change. Thanks to the emergence of big data and increased processing power, our advanced machines are not only able to perform a range of routine physical work activities, but they are increasingly capable of accomplishing tasks requiring cognitive abilities. It is widely accepted that AI is now better at diagnosing certain conditions than doctors and nurses and tasks such as language translation are increasingly taken care of with machine learning. No one can really say how this will play out in society and the debate is often heated. Last July, the topic even sparked a row between two of the world's most powerful men, Tesla and SpaceX founder Elon Musk and Facebook founder Mark Zuckerberg. Musk believes we would be wary of AI and regulate it accordingly, Zuckerberg on the other hand is optimistic and believes creating a negative narrative around AI is "irresponsible."

While the debate rages on, there's no denying that AI, and the resulting automation, will change our working practices and render certain roles obsolete. The latest report from PwC suggests that automation is set to affect UK jobs in three waves, with the biggest change expected in the late 2020s to mid 2030s, with up to 30 percent of UK jobs potentially impacted by automation by the early 2030s. A lot of the negative press around automation comes from the perceived loss of jobs. But maybe the view that it is us *or* them is short sighted. In fact, it is more likely to be us *and* them. The role of humans will simply change, not disappear. With automation creating a different type of worker and workplace, our job now is to identify what the jobs of the future will look like. And we already have a pretty good idea. While AI is better than us at tackling mathematical, data-led tasks, we humans still have the edge when it comes to creativity, empathy and emotional intelligence.

Take the example of Pepper the Japanese robot, made by SoftBank robotics. According to its makers, Pepper can recognise facial expressions and react accordingly. But while Pepper might be able to read anger versus happiness, emotions are complex and certain moods are not easily given away by a set of universal clues. Personal experience and an acute understanding of the human experience are essential for accurate cognitive empathy.

Skills such as these, which enable us to connect with others, responding with compassion and understanding, are already critical to business performance. Legendary American businessman Mark McCormack once said: "All things being equal, people will do business with a friend; all things being unequal, people will still do business with a friend." This still rings true. Efficiency and accuracy are important too, of course, but we can't forget the role warmth and humanity play in building lasting connections with customers. A recent study by Accenture found that while 88 per cent of customers use digital channels at some point in their shopping journey, 73 per cent seek out humans for advice and the same percentage again when it comes to solving service issues.

Automation should not diminish the traits of humanity, but encourage us to embrace them and value them even more. The top 30 fastest-growing occupations for the next 10 years, according to the US Bureau of Labor Statistics, are strong examples of humans looking after humans—nurses, therapists and healthcare workers. Embracing the latest technology in the workplace frees people up to pursue other, more rewarding tasks. If automation enables us, for example, to concentrate on building customer-centric businesses, we'll all benefit. There's an argument to say that rather than engineering humans out of the equation, artificial intelligence will enable us to reach our full potential—performing better. This is known as intelligence augmentation—IA rather than AI.

In its latest report, PwC predicted that new technologies, such as AI, will boost productivity, income and wealth and that this will balance out the job losses. Additional wealth will be spent—creating an increased demand for human-focused services. As Lianne Bainbridge pointed out in her 1983 paper, *Ironies of Automation*, the process of automation actually creates more jobs than it destroys. This was echoed by a Gartner study late last year, which found that around two million entirely new job roles are expected to exist by 2025 thanks to wide-spread adoption of AI in the workplace. Perhaps we should stop focusing on the number of jobs at risk and start thinking about the ones we can create. Workplaces will become environments that reward ideas and innovative thinking. A world where entrepreneurial mindsets and creativity make all of the difference. Let's see where it takes us.

Simon Rogerson is the CEO and co-founder of Octopus Group

Is art-connoisseur yet another job threatened by technology?

Prospero

THE patient is carefully positioned on a pristine rectangular table. A signal is given, and from behind a glass wall, a technician directs an X-ray machine overhead. This is not a hospital. It is the conservation laboratory of the Rijksmuseum in Amsterdam. Visits here were part of the museum's recent two-day symposium "Jewellery Matters", which broke ground by inviting artists, makers, scientists, educators and collectors as well as the usual art historians. The patient was a fanciful 17th-century pendant having its enamel analysed in order to find the actual date of its creation. In the 19th century demand for such pieces outstripped supply, and fakes (some magnificent) were produced to satisfy the market. Was this one of them? The same X-ray fluorescence spectroscopy (XRF) equipment could be used to study a 16th-century Indian bronze statue, a Roman glass vase or a leaf from a medieval illuminated manuscript. As one technician describes it, it works this way: A precisely targeted beam enters the object exciting the electrons through which it passes. A kind of dance follows during which they leap up before returning to their starting place. The energy released is measured, and component materials and their proportions identified. Comparisons with the museum's database lead to the jewel's date. But not all museums use the same software. Standardisation would allow pooling of data across institutions, and efforts to promote this are underway.

XRF is just one of many high-tech techniques. Laser ablation inductively coupled plasma mass spectrometry (LA-ICPMS), can date decorations on Qing dynasty ceramics. Here, a powerful laser vaporises a tiny amount of material which is then broken into ions. The different elements are sorted by their mass, and counted by a very fast mass spectrometer—the more counts, the more of the element is present. Carbon-14 dating, the best known of these tools, which uses the predictable decay of the radioactive carbon-14 isotope, can tell the age of Old Master wood panels. It and infrared reflectography were among the many technologies used during the intensive scrutiny of "Salvator Mundi", which played a key role in the work's re-attribution to Leonardo da Vinci—and its subsequent record-breaking auction price of \$450m. That price and the media storm that followed demonstrated how important science has become to art history and to the market. For centuries, connoisseurs spent their lives handling objects, studying archives and inventories, chasing provenances and training their eyes to see what is instead of what they wish they were seeing in order to answer such questions as "Who made it?" and "When?" Now science can get answers faster and with more certainty. Who will want connoisseurs with their educated guesses? Yet another set of specialist skills seems about to be made redundant by technology.

This conclusion is reasonable—but premature. The connoisseur, which is to say the investigative, knowledgeable and imaginative curator, scholar, dealer or collector, has the insights and curiosity to ask questions about a work of art in the first place. In any case, even the most exciting technologies have limitations. The immutability of gold has thus far insulated it from such probing. Carbon-14 dating can only be used for organic materials. And according to Andrew Shortland, director of the Cranfield Forensic Institute (CFI), a laboratory that studies everything from ballistics to corpses, "unless you use radio-carbon [ie, carbon-14] dating, you cannot absolutely date an object." Other procedures, like those mentioned above, result in some degree of error. Depending on such variables as software choice and size of databases, this can vary from a few years to a century or more. Quick and clear solutions can come if an element found present in a piece was used only at a given time. "Chrome, a very stable compound, was discovered in 1797," Mr Shortland notes. When he found it on a green leaf of a Meissen porcelain sculpture he analysed, he told the collector that it was not the prized early 18th-century piece after all. But this client was a connoisseur, one whose knowledge the scientist esteemed. The collector was certain the piece was early and requested more tests. The other leaves contained no trace of chrome. The first one, therefore, was a later restoration. The collector was right, after all.

Importantly, the availability of technology is limited. The number of experts is small; the cost of equipment and staff to analyse output is high. Some big museums can afford high-tech laboratories of their own to analyse their collections. Private owners, dealers and auction houses must employ the few laboratories like CFI that do commercial work. Fees depend on the time involved. This means that except when sentiment outweighs prudence, customers are more likely to bring CFI a piece valued at £300,000 than one worth £3,000, even if the time needed is as little as a day. The use of artificial intelligence will no doubt provide more insight in future. That the Rijksmuseum opened its lab for the "Jewellery Matters" symposium is a reflection of convictions of one of its keynote speakers, Robert van Lange, the museum's head of conservation. A trained goldsmith with a combined PhD in materials science and art history, he believes that "in the pursuit of knowledge about works of art, the language of science and that of the humanities both have to be spoken," or at least both "understood". In other words, while the nature and interplay of the contributions of each may well change, the future belongs to a partnership of both technology and the connoisseur.

French as lingua franca of the 'new' world?

Jonathan Eyal

France hosted an unusual event yesterday: an international conference devoted to overhauling the promotion of the country's culture and language around the world. The effort is the brainchild of President Emmanuel Macron, who made the revival of France's international influence one of his key priorities after he came to power last year.

The French also have a perfect instrument for doing so: the Francophonie, an organisation of former French colonies and other French-speaking populations, loosely modelled on the Commonwealth created by the British for their former colonies. But, like the British, the French are discovering that overhauling international organisations they have created requires a great deal of diplomatic effort and more money than either can afford.

The Francophonie is considerably younger than the Commonwealth, established only in 1970, more than two decades after the British founded their organisation. It is also less overtly political; while Commonwealth summits deal with global governance issues, the Francophonie focuses on promoting language and cultural projects. The two organisations also vary greatly in size: While, at 84 member-states, the Francophonie is much larger than its 52-strong British counterpart, the Commonwealth has a combined population of 2.2 billion, as opposed to roughly half that number for the Francophonie. The Commonwealth also includes more prosperous nations than the Francophonie.

Still, the French have one great advantage: Because it is not a political grouping, it is easier for the Francophonie to include countries that were never colonies but where the French language plays an important role. The 2018 summit of the Francophonie will take place later this year in Armenia, a country which was ruled by Russia for centuries, but which has been a member of the Francophonie for 10 years.

President Macron constantly reminds audiences that France has amended its Constitution to make it a national duty to defend the international standing of the French language and culture, and to use the Francophonie for this purpose. He refuses to accept that French is in inexorable decline as the means of communication around the world. "The potential of the Francophonie is immense. With nearly 275 million French speakers worldwide, France remains a juggernaut in the global linguistic landscape," he said last October.

By the middle of this century, he has said, up to half a billion people could be speaking French as more or less a mother tongue, largely because the biggest population growth is anticipated to come from Africa, which accounts for around 85 per cent of French speakers. The conference was a platform to discuss ideas harnessed from months-long consultation with academics, educators and politicians. "This is not at all a defensive policy I want to present here," he said. Nevertheless, with most of its member states poor, the Francophonie relies on France's impetus for many of its activities, much more than the Commonwealth relies on Britain.

As a result, President Macron is under pressure to offer the Francophonie more resources, precisely at a time that France is trying to cut government spending. Still, there are plenty of innovative ideas. France's state-owned broadcaster is doing well on the Internet, albeit not always in the French language. Online French language courses are also thriving in places where French culture was not previously dominant, such as the Gulf. And much more can be done by providing "seed money" to local projects in Africa.

One thing is certain: The promotion of their language is dear to the hearts of most French men and women. Just ask President Macron, who recently decided to conduct international media interviews in English: He faced outrage back home.

Dover could suffer '20-mile permanent traffic jam' after Brexit

By Lisa O'Carroll

Maritime UK says logistics chain would be disrupted if transition deal is not agreed urgently

Dover will face permanent traffic jams stretching 20 miles out from the port from March 2019 unless Theresa May agrees to the EU's proposals for a Brexit transition period, the organisation representing the shipping industry and ports has said.

David Dingle, the chairman of Maritime UK, said lorry drivers could be stuck on the main approach roads to Dover for up to two days if there was no deal for a transition. Referring to police procedures put in place to prevent gridlock on Kent's roads, Dingle said: "You could have a permanent Operation Stack for 20 miles, it [the traffic] will just sit there.

"Drivers can be stuck for days, it [Stack] can be horrendous," he said referring to a Stack operation in 2015 when long stretches of the M20 were closed for 24 days, with food left to rot on the motorway shoulder. Ports and businesses have been calling for years for improvements on the M20, which is regularly hit by congestion, and Maritime UK fears this will now worsen as the government battles to unite over its Brexit vision. "We are lost in politics," Dingle said. "The meltdown will come back to the roll-on, roll-off ports," he said. "We are shouting loudly about this, we have been for a while, but you do feel you are banging your head against a brick wall."

He said it was not just the £100bn-a-year maritime industry that would be affected by delays, but also key businesses such as Japanese car manufacturers who rely on "just in time" car part delivery from the continent. Consumers and supermarkets would also be affected, with 50% of the nation's food coming from the continent and from Ireland, which is a huge supplier of dairy products, mushrooms and beef.

"Our message is: please, government, can you do this as quickly as possible because if there is no transition period the industry as a whole will be in trouble and the whole logistics chain will be in major trouble," he said. Last week the EU's chief Brexit negotiator, Michel Barnier, said the transition was "not a given" after May laid down red lines on EU citizens coming to the UK after March 2019 and the right of the UK to object to new EU laws during the period.

Dingle said the French were already ahead of Britain in preparation for a no-deal Brexit, hiring customs officials for March next year for Calais, and the Belgians and Dutch were making similar contingency plans for Zeebrugge and Rotterdam ports. Maritime UK is calling for an open-ended transition period, claiming it is pointless "book-ending" the implementation period when no one can make firm plans until the final withdrawal agreement is agreed in October.

One of the biggest challenges for cliff-fringed Dover port is lack of space for lorry checks. A £250m lorry park off the M20 was first proposed two years ago but has been the subject of a judicial review. Dingle said the government's infrastructure investment had focused on socially beneficial projects such as HS2, but it should be looking at investment in the M20 and approach roads to Southampton.

It could also look at developing new ports in such places as the Isle of Sheppey and Thanet in Kent, Maritime UK said. Dingle's comments were echoed by the UK Chamber of Shipping. "The planned series of speeches from senior ministers must not become an airing of public spats or a competition between Conservative rivals," said Guy Platten, its chief executive.

"We urgently need a united government to project its authority, to grab these vital negotiations by the scruff of the neck" to "give absolute confidence" to business, he said, starting with a deal that keeps trade moving freely between the EU and the UK.

The Whole Point of Free Trade Is That It's Not Fair

By Jeffrey Dorfman

Last week, the Trump Administration announced tariffs on imported solar panels and washing machines. Both actions will lead to higher prices for consumers. In the solar panel case, the tariff will almost certainly cost the U.S. far more jobs than are saved, as explained below. These actions, guaranteed to hurt either some or most Americans in order to reward a few (the workers and shareholders of the protected companies), are legally justified by findings these industries are being harmed by unfair foreign competition. Yet, the entire point of trade is that the process is not fair. It is the trade which looks the most unfair that creates the most benefits because the potential gains are the largest.

One of the most basic lessons of economics is the theory of absolute and comparative advantage. This theory holds that when companies, regions, or countries specialize in the types of production they are relatively better at it allows the parties to consume more of all products. In the context of international trade, allowing countries to specialize in different products and services makes all countries participating in trade better off.

This specialization often results in different countries producing goods at quite different costs. Sometimes this is due to different resource endowments, geographies, and other natural advantages. Other times, production cost differences arise when countries specializing in different industries realize economies of scale or scope that yield substantial cost advantages. Those cost advantages can appear to some as unfair competition. Imposing tariffs to offset such cost differences, however, removes the entire incentive for trade, thereby impoverishing all countries.

Removing the potential profit from exporting means countries hit with tariffs will produce less of what they have an advantage in and more of what they don't. If the U.S. produces fewer high technology scientific devices, for example, so that we can make more washing machines, our overall productivity will fall. "Jack of all trades, master of none" is not just an empty saying. Because American-made and now-taxed imported solar panels will be more expensive, fewer solar panels will be purchased. This means as many as 88,000 solar panel installers may lose their jobs while only a few thousand U.S. jobs will be gained in solar panel manufacturing. In simple terms, less specialization means the world economy falls below its potential; the world becomes poorer.

Imagine how much less productive we would be if we each had to grow our own food, make our own clothes, manufacture our own technology products, write our own software, and teach our own children. We accept specialization of labor, trade, and resulting bilateral trade deficits and surpluses as a normal part of life at the micro level, implicitly recognizing the benefits inherent in the system of trade. As individual shoppers, we are happy when someone offers us a product on sale, even a sale so deep that the seller is losing money. Yet when imported products offer a great price to an entire nation of consumers, suddenly a sale is "dumping" or "state subsidies" and the unfair competition from imports must be offset with consumer-harming tariffs.

Valid arguments can be made to preserve certain industries for spillover effects, national security, or other motives, but those cases are rare and certainly do not include solar panels or washing machines. Instead, tariffs are best understood as taxes on consumers to provide benefits to a favored subset of workers and business owners. Such market interference leaves all impacted countries worse off by reducing specialization. International trade is not a sports competition where an even playing field is a must. Rather, cost differences and specialization create the gains from trade. The whole point of free trade is that it's not fair.

The end of watching TV as a family

Sean Coughlan Education correspondent

It would be hard to exaggerate the influence that television once held over family life. Even if you hated programmes, you still watched them. It was always there in the background. It was where people gathered, a shared experience in families and a shared experience across communities. But that world is disappearing.

The annual Childwise report into how children consume media shows a tipping point away from watching programmes together. For the first time, children aged five to 16 are more likely to watch programmes and videos on devices such as laptops and mobile phones, rather than on television screens.

It means that watching television within families is becoming a private activity, individual and solitary. It's wearing headphones in the bedroom rather than sprawled together in front of the box. It's Netflix on the mobile rather than a Sunday afternoon television movie. Homes are places where people are alone together. "TV sets have been the focal point in a lot of homes for many years, but they are falling out of favour amongst children," said Childwise's research director, Simon Leggett.

It's not that young people have stopped watching programmes and videos. The monitoring survey shows viewing has slightly increased this year to an average of over two and a half hours per day. But it's increasingly no longer in the public space of the living room and it's often about the repetitive "binge viewing" of favourite programmes.

Researchers found that half of children and teenagers preferred watching back-to-back episodes, so that two and a half hours of viewing might be for a single programme. The idea of waiting for a programme is disappearing. The idea of a TV channel with a fixed schedule seems as clunky as a VHS player. It's becoming less likely that families will meet round the television. Such shared viewing is so last century.

None of this will seem particularly surprising to parents, who will have seen their children retreating into their own digital worlds. But it does mean the shape of family life is changing.

No longer will people argue over what to watch and then complain about their parents' choices. And parents are increasingly unlikely to be able to supervise their children's viewing. It's now watch without mother.

Family television will no longer be like the old days of Top of the Pops, watching a load of dross for that one glimpse of a band you liked. Teenagers in the 1970s, 1980s and 1990s were able to define themselves as much by what they despised on television as by what they liked. You have to have a common culture before you can kick against it.

It's also a shift that follows the trend towards polarisation and the echo chambers of social media. You watch a great deal of something you know you like. You never watch things with which you're likely to disagree. The feedback loops of online algorithms serve up even more of the same, dicing and slicing and targeting the audience into advertising-friendly chunks.

It's almost the complete opposite of Lord Reith's idea that public service broadcasting should be about giving people things they don't yet know they will like. It's also another step towards the shrinking public realm. Communal places, such as post offices, bank branches, corner shops and pubs have disappeared from many neighbourhoods. Television, as a shared place for families, is being pushed back into the corner.

Plastic waste 'building up' in Arctic

By Roger Harrabin BBC environment analyst

Plastic waste has been found everywhere that researchers have looked for it. Plastic waste is building up in the supposedly pristine wilderness of the Norwegian Arctic, scientists say. Researchers are particularly concerned about huge concentrations of microplastic fragments in sea ice. They say they've found plastic litter almost everywhere in the Arctic they have looked. Norwegian fishermen are worried that their fish stocks may lose their reputation for being untouched by pollution. Most of the large plastic waste there comes from discarded fishing gear. And boat owners admit it will take hundreds of years to overcome a few reckless decades of using the sea as a dump.

Norway's environment minister says politicians in the past haven't fully registered the extent of the problem.

A synthesis report from the Norwegian Polar Institute to the recent Arctic Frontiers conference in Tromsø says there's a great need for more research into the extent of possible harm from plastic. It says effects have been monitored so far on zooplankton, invertebrates, fish, seabirds, and mammals. Research shows that up to 234 particles have been found concentrated into just one litre of melted Arctic sea ice. That's much higher than in the open ocean. Researchers explain that sea ice forms from the top. By unfortunate coincidence, plastic particles also float at the surface, so they get bonded into the ice as it freezes.

Some of the fragments are very small. They are not yet sure how much of a threat this presents. But they are worried about the impact on Arctic wildlife if the particles are released as sea ice continues to shrink. Geir Wing Gabrielsen, one of the paper's authors, told BBC News: "We are finding more and more plastic waste in Svalbard, where I work. "The northern fulmar breeds in Svalbard. "At the end of the 1970s we found very few plastic in their stomachs. In 2013 when we last investigated, some had more than 200 pieces of plastic in their stomachs. "Other creatures are getting entangled in nets washed up on beaches - like reindeer. Some die because they can't release their antlers - we find them every year." He said in southern Norway pollution was dominated by plastics from the home - but in Svalbard 80% of it comes from fishing activities, local and distant.

Surveys suggest that fishing crews are increasingly aware of their responsibilities now. Jan Roger Lerbukt, manager of Hermes Fishing in Tromsø told me: "In the past 20 years I've seen a change in awareness in everyone towards protecting the environment. "Fishing has been in our soul for thousands of years. If there's any environmental threat to the fish it's also a threat to our livelihood and that's a big concern.

"We have a reputation for a pure product and we don't want that damaged." He agreed that trawler crews used to throw tangled nets overboard, but says they now they return them to harbour. He says they also salvage plastic litter they catch, under a scheme called Fishing for Litter. Scientists are worried about the impact all this waste is having on wildlife. More and more crews are using paper packaging and moving away from plastic tape, he said. But on a short walk along a plastic-strewn beach in Skulsfjord near Tromsø, I found clear evidence of fishing ropes still being deliberately cut. And in the open water, "ghost nets" are easy to find.

Bo Eide, an environment consultant for Tromsø Council, conducts litter-picking on the beaches. "People see the pictures in brochures of the pristine Arctic and they book their holidays to come here," he tells me. "They're sometimes rather shocked to find that the Arctic in close-up is no longer how it looks in the brochures." Norway's environment Minister Ola Elvestuen told BBC News: "It's disturbing - there's nowhere on Earth that's so far away that its not affected by plastics.

Hunky Tory? Attractive people more likely to be rightwing, study finds

Hannah Summers

It is a finding unlikely to prove popular with Guardian readers, but a study has concluded that attractive people are more likely to be rightwing.

Previous research has found that those who are good-looking are generally treated better, achieve higher social status and earn more money, leading them to see the world as a just and fair place. Now an American study published in the *Journal of Public Economics* based on comparing multiple surveys has concluded that the attractiveness of a person can correlate with their political beliefs.

The authors, Rolfe Daus Peterson of Susquehanna University and Carl L Palmer of Illinois State University, wrote: “Controlling for socioeconomic status, we found that more attractive individuals are more likely to report higher levels of political efficacy, identify as conservative and identify as Republican.” They attribute the trend to the “halo effect” – a form of cognitive bias by which specific positive traits influence a person’s view of other people.

Various studies over the years have shown that a person’s physical appearance significantly colours their life experience, and Peterson and Palmer say these life experiences mould our political views.

“Attractiveness matters. When we are treated differently we begin to perceive the world differently,” says Peterson. “Research shows good-looking people tend to get on better in life because people interact with them differently.”

The study reports this can lead them to have a “blind spot” when it comes to understanding the hardships faced by others – making them more likely to embrace individualism and reject the types of social assistance and welfare aid more commonly promoted by leftwing policy.

“All attractive people are not conservative and not all unattractive people are liberals,” said Peterson. But he added: “Attractiveness gives a person a small push in the conservative direction.”

The researchers took data from the 1972, 1974 and 1976 American National Studies surveys which asked people to evaluate the appearance of others and also explored participants’ political beliefs, income, race, gender, and education. These results were compared with the Wisconsin Longitudinal study which focused on the physical characteristics of more than 10,000 high school students who were rated by others on their level of attractiveness. They said a connection between an individual’s physical attractiveness and political beliefs could be revealed. They found that attractive people faced fewer hurdles navigating the social world and were more likely to be conservative due to the blind spot theory.

“In a sense, attractive individuals have a blind spot that leads them to not see the need for more government support or aid in society,” Palmer and Peterson argue.