About the author

Nominet Trust Chair, Charles Leadbeater is an independent and strategic adviser on innovation.

The New York Times anointed his idea, The Pro-Am Revolution, as one of the biggest global ideas of the last decade. His TED talks on innovation have been watched by hundreds of thousands of people.

The Spectator Magazine described him as “the wizard of the web” after publication of his book “We Think; mass innovation not mass production” which charts the rise of more collaborative, open forms of innovation was an Amazon bestseller. Accenture, the global management consultancy, has ranked him one of the top management thinkers in the world, and the Financial Times ranked him the outstanding innovation expert in the UK.

Charles was an adviser to the Downing Street Policy Unit and the Department of Trade and Industry on the Internet and the knowledge driven economy, helping to shape government policy across a number of fronts. The vision statement he drafted for the Culture Online programme in 2001 predicted the web would become a platform for participation and collaboration. Charles is a leading advisor to corporations on innovation and the impact of the web.

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A Better Web

It is a sign of the times that, when a friend of mine recently celebrated his 40th birthday, he was not surprised that Facebook delivered its own birthday greetings, along with those of his many friends. He was especially pleased with the presents his wife had bought for him: each one hit the spot. That was because, unbeknown to him and in the two weeks prior to his birthday, his wife had been treated to a string of advertisements on her Facebook page, each carefully chosen to appeal to the wife of a jolly, Welsh, bearded, rugby loving, cider making public professional.

Was this a helpful service to a time-pressed working mother of two who needed ideas for her husband’s birthday, or a worrying sign of the kind of knowledge that services like Facebook have about us and which could be used in far from benign ways, without our knowing?

Most of us will have felt that dilemma at some point in the past few years; a mixture of surprise, excitement and bewilderment. Most new communications technologies with mass appeal produce some kind of moral panic over whether people can be trusted to use them. When the first mass market novels were published, people worried that women would spend too much time reading, alone with their imaginations, rather than attending to their duties. Most of these panics have proved ill-founded.

Yet what stands out about the mixture of wonder and unease that we currently feel about digital technologies is that this dilemma is not provoked by self-appointed, out-of-touch moral guardians. It is now widely felt among people who use these technologies on a regular basis, including many young people as well as their parents.

**Diversity for a healthy digital environment**

This paper is about how we respond to that unease. Its central argument is that we need to reclaim a sense of control over our technologies, which means better understanding how they are developed while also promoting how they can be used to provide dramatically improved public services: education and learning; health and care; collaborative solutions to shared challenges. If we think the web can be reduced to Google, Facebook, YouTube, iTunes and Amazon, then we are at risk of missing huge opportunities to learn, care, debate, make, share and create online.

The United Kingdom can lead the way in this. Making the United Kingdom the best place in the world to be online will be about more than speed and choice, access to fibre optic capacity and the availability of venture capital so the start-ups of Shoreditch can rival those of Silicon Valley.
That is all vital for an economy that needs to lessen its reliance on financial services, export more and raise productivity. But creating a better web is not just about improving our opportunities for buying, selling, flirting, meeting, chatting and posting, important though all those may be.

**We need to reclaim a sense of control over our technologies, which means better understanding how they are developed while also promoting how they can be used to provide dramatically improved public services.**

Nor does making a better web mean attempting to return to a digital Garden of Eden that was the preserve of well-meaning academics. The way forward does not lie through heavy-handed government regulation which will only slow innovation. That said, a purely libertarian, ‘anything goes’ approach ignores the power and responsibilities of the new media giants and tech companies that increasingly organise our digital lives. Instead, the best way forward is to work with the grain of exuberant experimentation and entrepreneurship, which digital technologies have unleashed, to make sure people can choose from a wide diversity of suppliers of digital products and services; private, public and social. We are still at the very earliest stages of working out how to live more successful lives with these technologies. The biggest risk is that experimentation gets shut down too soon because the field is already dominated by global monopolies. The way forward lies in more experimentation, competition and diversity, not less.

**AN EXPLOSION OF POSSIBILITIES**

Digital technologies have been taken up at such speed and scale because they really do change our lives for the better. Today we have affordable, easy-to-use tools, devices, software and connections which give us access to more knowledge and information; allow us more choice or get us better deals. We are connected to one another in countless new ways as colleagues, friends, fans, mates and dates. It enable us to organise ourselves in more flexible ways while providing us with ways to express ourselves creatively.

Only 40 years ago the digital economy was mainly made up of arcade games of ping-pong. Now it includes vast multiplayer online games which are the focal point of vast communities of players and developers. The web may at times seem an unruly free-for-all but it is also allowing new and increasingly strong communities of interest to emerge as more people pursue what most matters to them. At a time when politics and corporate life often seem so uninspiring, digital technologies have unleashed enormous energy and ambition for change. When did a political party last create
something as interesting and life changing as iTunes, Google, Airbnb, Trip Advisor or Wikipedia or as mindblowing as the digital effects in the film Gravity?

In the developing world, this sense of possibility and transformation is even more palpable. In India or Kenya, the acquisition of a mobile phone means you have arrived; you have a number and that means you can be connected to a wider world for the very first time and so to seemingly boundless opportunities to learn, trade and collaborate. Yet it was never going to be quite so simple.

**Tethered to technology**

Digital technology in its proliferating incarnations is increasingly a framework for how we conduct our lives, express our identity, judge our social standing and form our relationships.

As innovation brings a bounty of new ways to work, shop and socialise, so it also breeds conflict. As old norms, institutions and occupations are challenged, those whose lives are thrown into turmoil question the case for change on grounds of quality, fairness and morality. As digital technologies have upended traditional business models in music recording, retailing, journalism and publishing so the explosion of new ways to entertain and inform ourselves has been met with a chorus of criticism about declining quality.

That kind of backlash might have been predictable. More worrying perhaps is that even some of those who enthusiastically embrace these technologies view their relationship with digital technology more like a chronic condition.

We cannot live without them but we are not quite sure what they are doing to us and whether that will be for good or ill. Digital technology is not like a lever, a wheel or a pencil; a tool to amplify our power to pursue our goals. Digital technology in its proliferating incarnations, from the web and the internet, to social media and Big Data, the Internet of Things and the Quantified Self, is increasingly a framework for how we conduct our lives, express our identity, judge our social standing and form our relationships. Digital systems, like my friend’s wife’s Facebook account, do not simply respond to what we tell them we want to do; they anticipate, shape, nudge and prompt us in directions they think will be best for us. (Facebook recently provoked a storm of controversy by accidentally revealing that it had been experimenting with ways to make its users happier by reordering their news feed without informing the 600,000 users involved in the experiment.)
A set of technologies that offered to liberate individuals seems to have become for some a cyber yoke, turning free-agents into indentured mouse clickers, paying our dues to the digital barons – Apple, Google, Facebook – without whom we cannot live and work. In the process of setting us free from some constraints of time and geography, technology seems to have created a new dependency culture: we cannot go without for long before we start to feel edgy. Social media is breeding a culture of mass presenteeism, the need to be constantly present, to attract and return attention on Snapchat and Instagram, Facebook and Twitter. Young people are already quantifying their selves through the likes and rates they amass. Young people with more freedom than ever to explore the world are more tethered than ever to their phones and their social networks.

A set of technologies that make the world more transparent and expose people in power to greater scrutiny, has also brought with it surveillance on an unprecedented scale. Old corporate powers may have been fatally wounded but, in their place, new media powers have risen which know far more about the detail of our lives than any old media baron, and largely because we agree, knowingly or not, to give them all this information. Some welcome this trade in privacy because they like the highly personalised services they get as a result. Others view it as a kind of blackmail.

The promise of a more collaborative, deliberative and civil culture has all too often delivered the ugly reality of baying mobs of trolls. The web has given oxygen to some of our worst tendencies – from bullying to misogyny, sexism and sexual abuse. The internet opens up a vast world of different ideas and views. Yet most of us choose to confine ourselves to enclaves that reinforce our preconceptions. As much as it helps us to think and learn, digital technology, the critics allege, seems to make us easily distracted as we lose the ability to concentrate and the patience to follow through. Complete privacy now seems an impossibility other than to complete recluses. We will find out in the next decade or so what it will be like to be an adult with all the mistakes of our teenage past on public view.

More people are able to work as they wish, even creating a micro-multinational from their back room. Yet for many others work is now closely monitored and programmed by machines. At every turn life seems to be run by algorithms which measure and quantify but cannot feel and touch, at least not yet. While we can all enjoy the astounding diversity of material available from the long tail of micro producers occupying little niches, like the businesses selling craft products on Etsy, many working the long tail do not make enough money to live, while those that win – the blockbusters – seem to do better than ever before.
Harnessing experimentation and entrepreneurship

The best way to respond to this odd mixture of excitement and unease, is to show how digital technology can be used to address issues that matter, creating solutions to social challenges which will make the United Kingdom a better place to live: better ways to learn and access knowledge; to acquire skills and to make a living; to live healthy lives and to look after older people; to amplify citizens’ ability to shape democratic decision making. In short, we need to show that digital technologies can serve civic and social purposes that matter, as well as commercial and governmental ones. And to do that we need to work with the sense of exuberant experimentation which digital technologies bring and use entrepreneurship in all its forms, commercial and social, to create better ways to live. Alongside that we need to foster a culture, a set of expectations about how people will behave, which makes being online as comfortable and safe, enjoyable and relaxing for everyone as any decent public park.

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The following are ten areas on which we should focus to put the UK at the forefront of creating a better web.

1 New Ways to Learn

The United Kingdom can lead the world in creating different, more compelling ways for young people to learn, in and outside school, using digital technology. Many of the best known innovations in this field such as the Khan Academy and massive open online courses, known as MOOCS, like Coursera extend access to learning through video tutorials and lectures.

Yet the biggest opportunity to do something different will be to use technology to create opportunities for young people to learn which involve collaborative, creative, problem solving focussed on real world challenges, in which children learn by making and doing things. That is the core of the Make Things Do Stuff campaign and ventures such as Apps for Good, the mobile phone based learning programme which by early 2014 was reaching almost 20,000 students, and Code Club, which is setting up a national network of coding clubs in primary schools. These are just three among an increasingly rich array of schemes offering creative approaches to learning through technology, from Coderdojo to Code Academy and Freeformers, the Digital Youth Academy and Plan B Learning. The United Kingdom has the opportunity to create a seamless
new system from primary school through to college for young people to learn how to use digital technology creatively to address real world challenges as well as to improve their understanding of how digital technologies work. This is a vital complement to the traditional education system and it is being created by social tech entrepreneurs.

2 Living Healthily

We have an equally important opportunity to create an alternative, parallel health system using digital technology; one which puts people and patients in the driving seat, equipping them with control over their own health information; providing more informed choice over a wider range of services and more effective ways for them to live healthier lives. Dr Doctor, for example, is a simple smartphone application that lets clinics and GP surgeries run their appointment system much more efficiently. Yet many of the most exciting future developments in health care will come from technologies that help people to manage their own health, often at home and in their communities, by helping one another and without going near a hospital or visiting a doctor. A prime example is Big White Wall, a pioneering approach to providing mental health services online, which is now widely used in the UK and developing in the US.

We should learn from experiments all over the world where people are using mobile phones to enable health care to be delivered in, with and by communities, without relying on expensive hospitals and professionals. In Mexico, for example, Medicall Home provides a barebones primary healthcare service for $5 a month to more than five million Mexican mobile phone subscribers. In the developing world, the lack of nurses and doctors is encouraging radical innovation; for example turning the mobile phone into a multipurpose tool for testing for anaemia.

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3 Care Networks

Ageing is both one of the biggest challenges and one of the biggest opportunities our society faces. Living well during an extended later life depends largely on whether people can remain fit, capable, active and socially connected. Digital technologies can play a critical role in creating new webs of social support for older people to help reduce loneliness, increase social participation,
improve care and support people to live independently for longer. **Speakset** is a set top box that allows older people to make video calls through their television, a far more familiar technology than the computer. Carers UK is developing **Jointly**, an app which helps carers orchestrate formal and informal carers around an individual.

In these three areas – learning, health and care - social tech entrepreneurs are using digital technologies to come up with new approaches to improve, complement and provide alternatives to traditional, often costly public service solutions. These new approaches can play a vital role in charting a new way forward for public services in the face of austerity.

The digital economy is increasingly the economy. More and more jobs and transactions depend on digital technology. People who are unable to play a full role in the digital economy – as workers, borrowers, savers, consumers – risk being disadvantaged. We need to open access to the digital economy to all, especially people on modest incomes who benefit most from the lower cost solutions the web has to offer.

## 4 Collaborative Consumption

**Innovations to help people in the squeezed middle cope with life should be vital.**

There are huge opportunities for people on modest incomes to benefit from collaborative consumption, to pool their buying power with others and share resources rather than own them outright and so make their money go further. Collaborative consumption can take many forms – from car sharing sites such as **Zipcar** to collectively managed services such as the alternative mobile platform **GiffGaff**, which is run by its members. Families with modest incomes are unlikely to see their earnings rise much in future and meanwhile they are vulnerable to hikes in utility prices and other costs. Innovations to help people in the squeezed middle cope with life should be vital. **Open Utility**, for example, gives people greater choice to buy their electricity direct from a local supplier using renewable sources. Collaborative consumption could go from being a marginal to a mainstream way for people to buy services. The social tech field abounds with stories of how once marginal innovations turned mainstream.

## 5 Beyond Crowdfunding

A good example of how that can happen is the rise of the crowdfunding site **Kickstarter**, which allows people to fund projects by getting small investments from a very large number of backers.
In just five years Kickstarter has raised about $1bn for 61,000 crowdfunded projects. At a time when banks are often unwilling to lend money to young people, start-ups, small businesses and projects that seem risky, we should be developing alternative approaches to funding such as Student Funder which is applying crowdfunding to student finance. If we look around the world, we can see a wide range of initiatives which are allowing people to mobilise money without going through traditional banks, from M-Pesa, the mobile banking system in Kenya to Kiva and Give Directly.

6 Mass Entrepreneurship

Far more needs to be done to enable young people to acquire digital skills and to show employers how they can deploy them at work. Closing the gap between doing well at school and getting into the job market is still critical. Tasksquad is a platform for young people to get valuable work experience opportunities with leading employers. Crowdworks is a systematic way for young people to refer and recommend one another for interesting work opportunities. With the Duke of York, the Nominet Trust is developing the Inspiring Digital Enterprise Award programme to give 1m young people training in digital skills over the next five years. This is just a start: we need to find new ways to connect young people with digital skills to opportunities to work. One trend is to shift towards micro work, so people can bid for and undertake smaller packages of work: a good example is the platform created by Samasource. This model might be ideal for students with digital skills trying to get a foothold in the workplace. More young people see themselves as potential digital entrepreneurs: 25% of 16-25 year olds say they want to set up their own business at some point. They should be given more support to bootstrap their way into business on their own account.

We need to find new ways to connect young people with digital skills to opportunities to work. One trend is to shift towards micro work, so people can bid for and undertake smaller packages of work.

There are two other areas were we see huge potential for United Kingdom to lead the world in using technology for social good.

7 The Smart Social City

Cities are acquiring a new digital nervous system that could transform how they work. The mobile phone, with its maps, contacts and web access is the new passport to the city. As information and
communication become more readily available to citizens all the time, they also become more able to coordinate and organise themselves. These networks, which link people, their computers and mobile devices, are starting to embrace buildings, cars, goods, shops and workplaces. Better shared information should allow better coordination, reduce duplication and eliminate waste. The Waze transport app is a sign of things to come: people who sign up for the app generate data about how fast they are moving through the city which in turn alerts other users to where the traffic jams are – simple, social and effective.

UK cities should be standard bearers for the socially smart city, one that puts citizens more in control, feeds a distributed capacity for social creativity rather than relying on top-down, urban operating systems run by large technology companies. One small example is Commonplace, a simple tool for people to use their smartphones to engage in local consultations about the quality of life in their area. Urbanisation and digital technology are two of the most potent forces reshaping how we work and live. UK cities should lead the world in their creative combination.

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8 Assembling Knowledge in New Ways

Platforms for people to come together to share and assemble knowledge remain among the most impressive applications of the web, from the Public Library of Science to Wikipedia and the development of digital libraries around the world. Some of the most potent examples are mass citizen science platforms, such as Zooniverse, which bring together amateur enthusiasts, students and professional scientists to conduct real scientific research. An offshoot is Cellslider which applies the same approach to cancer research. The very same principles could be applied to social science research.

These are not vague promises of distant potential. These are areas where digital technology is being put to practical use by social entrepreneurs to help people live more successful lives.

Establishing Acceptable Cultural Norms

The final area in need of attention is around the culture of the web itself where web users, social media companies, online retailers, ISPs and others need to come together to promote and protect
the norms of basic civility which would govern everyday life in parks, pavements, squares and bus queues.

The web is too large, sprawling and diverse to be governed from the centre. That is its beauty and why it also relies on a culture of mutual self-governance. But in a minority of cases, though still too often, this ‘anything goes’ culture can let people down. The well of goodwill can too easily be poisoned by just a few trolls and abusers.

City life should provide a benchmark for the kind culture we want online. William Whyte’s classic study *The Secret Life of Small Urban Spaces* found that the most socially productive spaces in cities were small enough for people to sit, linger, make eye contact and chat, in small parks and public squares. The most important sign that a public space was safe and vibrant, Whyte found, was the presence of women and families. When they felt comfortable, it was a sign that the space was good for everyone.

**We need a new conversation about how we can create a better, safer experience online without risking clumsy, ill-judged attempts at regulation.**

We need a new conversation about how we can create a better, safer experience online without risking clumsy, ill-judged attempts at regulation. A way forward would be to follow William Whyte’s lead and focus on the experience of women and children.

### 9 Putting Young People in Charge

On children and young people, initiatives such as the [iRights](#) manifesto is campaigning for young people to have the right to remove content they posted ill-advisedly and to know what the companies who carry such content will do with it in future. We need more initiatives that will help young people to become more critical and capable participants online, such as SAFE from [DigitalMe](#), a programme in schools for children to learn more about how their personal data is used online, and [Digital Disruption](#) which helps young people develop better judgement about what to do and how to behave online.

Young people should have a prominent and permanent voice in the policy debates over identity, privacy, bullying and abuse online, perhaps through a commission into the future of the internet, which might be more like a hackathon than a select committee. We think the way forward is to

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1 Publication: Conservation Foundation, 1980, Film: Direct Cinema Limited 1988
focus on how young people can become capable, articulate consumers, critics and makers of digital content, who are then able to govern themselves better online and to challenge the companies whose services they use. One critical skill that all of us need to learn is how to manage our attention and learn when to turn off all digital devices and make ourselves available, uninterrupted, to the people and the world immediately around us. Perhaps we should, as a nation, have a day when we turn everything off and instead just talk to one another without distractions.

**10 A WEB FOR WOMEN**

We should promote people who are supporting women to challenge abuse and to reclaim the net as a [safe] civic space.

The vicious abuse meted out to women online, especially through Twitter, should be a source of deep concern for everyone involved in the web. The kind of abuse of the classicist Professor Mary Beard, the gymnast Beth Tweddle and the campaigner Caroline Criado-Perez would not be tolerated in a public place and there is no reason why it should be online. We cannot hope to increase the participation of young women in the tech sector if it so flagrantly fails to tackle sexism and misogyny on the grounds that to do so is in breach of free speech. The web cannot be called a civic space if women are routinely harassed. (The latest form of abuse includes so-called revenge rape in which ditched male partners post online intimate pictures of their former girlfriends. One thing is for sure: the women in these cases made absolutely the right decision.) We should promote – perhaps initially through an annual national prize – people who are supporting women to challenge abuse and to reclaim the net as a civic space which is safe women and so for everyone.

**HOW TO MAKE A BETTER WEB**

A healthy web needs to be fed by ideas from many sources, not just from a handful of mainly United States based technology companies, run by geeks and funded by venture capitalists. That is why it is encouraging that some of the biggest new websites in the world are coming from China, Korea and Japan and many of the most exciting new games and applications are being developed in Europe. We need experiments to be conducted all over the world, by potentially millions of people as they get their hands on technologies that can help them change their lives. Many of the most interesting developments will come from practical, real-world problem solvers, who do not invent technology but put existing technologies to use in imaginative new ways. The most striking aspect of social tech innovation around the world is the sheer diversity of what is being attempted by people in so many different places.
That is why, even now, the innovation with the greatest reach and impact may not be the latest all-singing and dancing smartphone but the basic mobile phone adapted in India to train health workers (Mobile Academy) and campaign against corruption (/Crowdring) and in China for farmers to sell their excess potatoes (12582) and parents to find missing children (BabyComeHome). Innovation flowers when technology reaches people with urgent needs and few resources who have no option but to come up with novel solutions.

The pace of this kind of innovation is quickening. Good ideas are emerging faster than ever because once an idea such as the Khan Academy (the not-for-profit digital education start-up which provides free teaching online) proves successful, demand almost mobilises itself. The organisation, which started from scratch just seven years ago, has delivered 260m lessons in languages ranging from Indonesian to Xhosa. Social innovation using digital technologies is cumulative, iterative, rapid and distributed, as more people in more places are able to learn from one another, adapt existing innovations to their needs and share the results. These innovations are carried forward by lean organisations that see themselves as movements with a clear social purpose, and which provide people with tools to enact change themselves. They find ways for small organisations to have a big impact by mobilising the contributions of many people.

The Nominet Trust, which I chair, is a small player in this rapidly emerging field. With the support of our parent Nominet we invest in, advocate and mobilise the imaginative use of technology for social innovation. We invest in the most promising social tech ventures we can find with real potential to scale new solutions to social needs. We advocate the case for technology as a force for social good through world-class research and campaigning, to help develop a more civil culture online. And we mobilise partnerships with other investors, tech companies, policymakers, social entrepreneurs and non-governmental organisations to bring about change.

The United Kingdom needs to stand for the better side of the web. Not just a faster, quicker, bigger, smarter web but one that is demonstrably better because it is more civil and it helps us address social challenges that matter.

Perspective is everything when you feel lost in a fog. To gain a sense of perspective you have to know what you stand for. The United Kingdom needs to stand for the better side of the web. Not just a faster, quicker, bigger, smarter web but one that is demonstrably better because it is more civil and it helps us address social challenges that matter. Digital technology is still the most potent, creative force which can offer people better ways to live. At Nominet Trust, we want to help people who see that potential turn it into practical, daily reality.
Endnotes

Thanks to generous funding by our farsighted parent Nominet, which oversees the UK system of domain name registrations, over the last five years the Nominet Trust has invested more than £21m in more than 700 ventures using technology to further social missions. These range from Beat Bullying, for young people to Internet Buttons, making the web accessible for older people; from Big White Wall, a novel approach to mental health using online consultations to Apps for Good, which helps young people to learn through making apps for mobile phones. In the process of making those investments and seeing which prosper and grow, we have learned a lot about how to realise, in practice and at scale, the enormous potential of digital technologies.

Not content with this, we have scoured the world for the most inspiring examples of digital technology being used to generate social change. The Nominet Trust 100 is an annual celebration of the most inspirational examples of digital technology being used for social good. This has spawned our Social Tech Guide, a compendium of more than 500 examples of social tech innovation from around the world. These are practical, real-world applications which can change people’s lives for the better. Drawing on what we have learned from our investments in the UK, the ideas that have inspired us from around the world and the kind of challenges we face in the United Kingdom, this document includes just some of our ideas about how we should use technology for social good and so make the United Kingdom the home of a better web.
Digital technology offers a phenomenal opportunity to stimulate new forms of collaboration, to mobilise new communities of interest, and to unleash the imagination of millions of users in addressing specific local and global challenges.

Nominet Trust believes in harnessing the power of digital technology to improve lives and communities.

As the UK’s only dedicated social tech funder, we bring together, invest in and support people committed to using digital technology to create social and economic value.

Since our inception in September 2008, Nominet Trust has invested more than £21 million in hundreds of ventures, providing business support as well as financial investment, seeking to use digital technology to tackle complex social problems.

To find out more about our work or how you can apply for funding, please visit:

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