

PROMOTING HUMAN FLOURISHING THROUGH THE  
BEST OF SCIENTIFIC INSIGHT AND SPIRITUAL WISDOM

# A GLOBAL ENGAGEMENT



TEMPLETON WORLD

CHARITY FOUNDATION



UNIVERSITY OF  
OXFORD

# THE TEAM

**Andrew Briggs** is the inaugural holder of the Chair in Nanomaterials at the University of Oxford. In 1999, he was elected Honorary Fellow of the Royal Microscopical Society for his innovative methods and applications of microscopy. From 2002-2009, he was Director of the Interdisciplinary Research Collaboration in Quantum Information Processing, which served to create new experimental and theoretical capacity in the UK and has been followed by UK government investments of £585M in Quantum Technologies. He has more than 600 publications with over 23,000 citations. In 2016 Oxford University Press published his book with Roger Wagner, *The Penultimate Curiosity: How Science Swims in the Slipstream of Ultimate Questions*. His latest book, *It Keeps Me Seeking: The Invitation from Science, Philosophy, & Religion*, with Hans Halvorson and Andrew Steane, was published by OUP in September 2018. With Michael J. Reiss, he is currently writing a book that explores the complementary roles of scientific insight and spiritual wisdom in the promotion of human flourishing.

**Michael J. Reiss** is Professor of Science Education at University College London, Visiting Professor at the Universities of Kiel and York and the Royal Veterinary College, a Fellow of the Academy of Social Sciences, the Society of Biology and the Royal Society of Arts and a Priest in the Church of England. He is President of the International Society for Science & Religion and of the International Association for Science and Religion in Schools and was previously Director of Education at the Royal Society and a Specialist Advisor to the House of Commons (education) and the House of Lords (bioethics). Books of his include: Barmania, S. & Reiss, M. J. (2018) *Islam and Health Policies Related to HIV Prevention in Malaysia*, Springer; Reiss, M. J. & White, J. (2013) *An Aims-based Curriculum*, IOE Press; Jones, L. & Reiss, M. J. (Eds) (2007) *Teaching about Scientific Origins: Taking Account of Creationism*, Peter Lang; Halstead, J. M. & Reiss, M. J. (2003) *Values in Sex Education: From Principles to Practice*, RoutledgeFalmer; Reiss, M. J. (2000) *Understanding Science Lessons: Five Years of Science Teaching*, Open University Press.

**Dominic Burbidge** is a Research Director in the University of Oxford and an External Advisor to the Templeton World Charity Foundation. He received his doctorate in politics in the University of Oxford before working as Research Director in Strathmore University, Kenya, funded by the Ford Foundation. In 2014, he joined the Politics Department in Princeton University as a Postdoctoral Researcher, and subsequently returned to the University of Oxford as a Postdoctoral Researcher in the Law Faculty. His research looks into decentralisation, citizenship and social trust, with a particular interest in social virtues. His most recent book explores Kenya's radical shift to local government, entitled: *An Experiment in Devolution: National Unity and the Deconstruction of the Kenyan State* (Strathmore University Press, 2019).

**Zeeya Merali** is a science journalist and the author of *A Big Bang in a Little Room: The Quest to Create New Universes* (Basic Books, 2017), which explores the scientific, religious and philosophical implications of theoretical proposals to build a baby universe in a particle accelerator. She holds a first-class undergraduate and Master's degree in natural sciences (physical) from the University of Cambridge, a PhD in theoretical physics and cosmology from Brown University, and a Master's in science communication from Imperial College London. As a freelance writer, science expert, and radio presenter, she frequently contributes to the *BBC World Service*, *Aeon*, *Discover*, *Scientific American*, *Science*, *Nature*, *New Scientist*, *NPR*, and *The Wall Street Journal*. She currently edits the Foundational Questions Institute, FQXi, website. As a documentary producer, her work has appeared on *History*, UK, and *NOVA PBS*, USA.

**Fiona Gatty** is a Research Fellow at the Department of Materials, the University of Oxford and the Strategic Relationships Adviser for the Templeton World Charity Foundation where she has built strong relationships with the Organisation for Economic Cooperation and Development (OECD), and with the Vatican in Rome. After her undergraduate degree in history from the University of Oxford, she had a career in finance, entrepreneurial business and family business before returning to do a Master's and Doctorate in art history at the University of Oxford, during which she was also the Lay Chaplain at Somerville College. She has written several publications, sermons and reviews including the recent article 'A house of prayer for all peoples? The unique case of Somerville College Chapel, Oxford', *Journal of Material Religion* (2018).

**Pete Jordan** is Project and Theme Adviser to the Templeton World Charity Foundation, based in the Department of Materials at the University of Oxford. In that role, he develops grant proposals for funding by the Foundation, and assists in the execution of active funding themes. He holds PhDs in biomedical science and intellectual history, his research for the latter having focused on how Protestant intellectuals in seventeenth-century England thought about and made use of natural causes to explain phenomena in nature.

*This project is funded through a grant to the University of Oxford from the Templeton World Charity Foundation.*

# CONTENTS

<b>PROMOTING HUMAN FLOURISHING THROUGH THE BEST OF SCIENTIFIC INSIGHT AND SPIRITUAL WISDOM</b>	<b>4</b>
Our Approach	4
Consultation Process	6
Outputs	7
<b>THEMES</b>	<b>8</b>
<b>Sacred Spaces</b>	<b>8</b>
The Changing Role of Education and the University	8
City Planning and Urban Architecture	9
<b>Rediscovering Meaning</b>	<b>10</b>
Leisure — the Forgotten Path to a Life Well-Lived	10
Longevity, Suffering and Vulnerability	11
<b>The Hyper-Connected World</b>	<b>12</b>
Building Communities: Going Global vs Going Local	12
Negotiating Fractured Identities and Finding Self-Belief	13
<b>Machine Learning</b>	<b>14</b>
Automation and the Future of Work	14
Active Citizenship in the Age of AI	15
<b>Medical Ethics</b>	<b>16</b>
Gene Editing	16
<b>TOPIC SELECTION</b>	<b>17</b>
<b>CITIZENSHIP IN A NETWORKED AGE</b>	<b>20</b>
Report Outline	20
Pivotal Changes in Response to Technological Advances	21
<b>APPENDIX</b>	<b>22</b>

# PROMOTING HUMAN FLOURISHING THROUGH THE BEST OF SCIENTIFIC INSIGHT AND SPIRITUAL WISDOM

## OUR APPROACH

*“An analysis of the history of technology shows that technological change is exponential ... So we won’t experience 100 years of progress in the 21st century – it will be more like 20,000 years of progress (at today’s rate).” Ray Kurzweil (2001)<sup>1</sup>*

Technological and scientific advances are accelerating at a heady pace, bringing with them opportunities for enhancing health, longevity and wellbeing on scales that were unimaginable even a decade ago. Yet our world remains unbalanced, as access to these benefits is unequally distributed; further changes threaten to increase the divide between the rich and the poor, and between developed and developing nations, rather than raising the standard of life for all. Furthermore, certain valuable new technologies have brought with them unexpected negative side effects for individuals and for societies.

In September 2018, we launched the human flourishing project to find spaces where the positive features of social and technological change could be embraced, while simultaneously anticipating, addressing and mitigating unwanted repercussions of future advances. Our shamelessly optimistic and ambitious aim was to identify neglected opportunities for promoting human flourishing at the large—and perhaps even global—scale. To this end, our project has from its inception drawn on the best of scientific insight and spiritual wisdom, in an effort to set out actionable recommendations for improving quality of life, ethically and holistically.

We argue that human flourishing occurs along several interconnected dimensions. There is a material dimension, which matters because humans cannot flourish if they are hungry, sick, or without shelter. In addition, there are two other dimensions that tend to be overlooked, but which are equally important in the quest for a good life. One of these is the relational dimension to flourishing; simply put, it is not good for humans to be alone. Thirdly, there is the transcendent dimension. This is often dismissed as lying solely in the purview of religious and spiritual leaders, or in private thought, but is, in fact, something we believe is fundamental for a complete picture of the human life well-lived.

---

<sup>1</sup> *The Law of Accelerating Returns*, Ray Kurzweil, 7 March 2001: <http://www.kurzweilai.net/the-law-of-accelerating-returns>.

The vital and complementary roles that scientific and spiritual insights play can be understood when analysing the complex new challenges human beings now face. For example, in the engineering sciences there will undoubtedly be accelerating developments in machine learning. In the medical sciences there will be improvements in life expectancy, bringing scope for enhanced enjoyment of time, but also forcing us to ask new questions about the nature of death and how to come to terms with suffering that cannot always be allayed. In the midst of these changes, we might ask how human and machine learning will co-evolve to mutual benefit.



In the social sciences, attitudes towards human nature are changing fast, moving away from assumptions of *Homo economicus* as uniformly self-interested and towards a more nuanced view whereby views of human dignity connect with the particular values exhibited at a community level.<sup>2</sup> At the same time, what one's personal identity means for oneself and the definition given to it by others have become increasingly important for understanding one's membership of society. We can further ask how these and other developments may be influenced by changes in the nature and extent of religious belief. What opportunities and challenges do these shifts present for human flourishing?

We must also scrutinise the methodologies for exploring these issues and identifying opportunities within them. Ensuring that new developments within these spaces lead to genuine flourishing—potentially in forms not yet imagined—demands both scientific insight and spiritual wisdom.

---

<sup>2</sup> George A. Akerlof & Rachel E. Kranton, *Identity Economics: How Our Identities Shape Our Work, Wages and Well-Being* (Princeton University Press, 2010).

## CONSULTATION PROCESS

The definition of what precisely constitutes human flourishing may vary for each individual based on their environment, their background, and their experiences. In recognition of this, we embarked on a global consultation process, inviting some 200 scientists, technology experts, philosophers, politicians, theologians and law experts to identify spaces of accelerated change, where action could—and should—be taken now in order to best leverage a positive impact for both individuals and societies. We consciously sought input from a diverse range of voices, including scholars from universities and academic institutions in developing and developed nations, professional educators, and experts from the Anglican, Evangelical, Catholic, Jewish and Islamic traditions, in addition to those who identify as having no particular faith.

Each international consultation involved small-scale group discussions to brainstorm ideas. Participants were asked to locate where changes in society and technology are taking place that give new opportunities for wellbeing and for inquiry into meaning, purpose and truth, and to determine how those changes already present or will present challenges to traditional answers. The groups were designed to be interdisciplinary, bringing together academic researchers, in the sciences and humanities, with politicians, educators and media specialists, to stimulate new avenues of discussion. These were followed by detailed interviews with experts on the specific issues raised.

We are grateful to those who gave generously of their time at consultations conducted at the Expanded Reason Congress in Rome, Italy, in September 2018, at a group of selected education leaders who were attending the OECD 2030 Future of Education meeting in Paris, France, in October 2018, at the Global Innovations for Character Development conference in Nairobi, Kenya, in October 2018, and at the Fuller Theological Seminary in Pasadena, California, in October 2018. We also convened a dedicated conference on science, philosophy and religion, from the perspective of the Abrahamic faiths, in Aiya Napa, Cyprus, drawing on expertise from the Mediterranean and the Middle East, in November 2018. A list of consultation participants is given in the appendix.

In parallel, we convened an interdisciplinary advisory group of UK scholars based at the University of Oxford (see the appendix for further details). This group met three times over a period of four months to generate new ideas and to help further develop the issues raised in the international consultation. We asked participants to propose specific methodologies for evidence gathering and strategies to implement recommendations that might lead to real-world change. They briefly considered the kinds of institutional structures that can best foster curiosity about meaning, purpose, and truth, and



the relative merits of a university environment and an entrepreneurial-type incubator. We thank the participants for the time, thought and enthusiasm that they kindly devoted to the project, and look forward to seeing the fruits of the ongoing research relationships that have been developed.

## OUTPUTS

This document marks the end of the primary consultation phase of the human flourishing project, and we are delighted to share its results. Over the following pages, we present key themes in the debate on human flourishing that have been identified as ripe for positive exploration. These have been broadly grouped into the following themes:

- ❑ The changing role of education and the university
- ❑ City planning and urban architecture
- ❑ Leisure – the forgotten path to a life well-lived
- ❑ Longevity, suffering and vulnerability
- ❑ Building communities: going global vs going local
- ❑ Negotiating fractured identities and nurturing self-belief
- ❑ Automation and the future of work
- ❑ Active citizenship in the age of Artificial Intelligence (AI)
- ❑ Gene editing



The final section of this document describes how the project will proceed as we enter the dedicated research phase, with publication of our main report in 2020. We describe the evaluative criteria that led us to define ***Citizenship in a Networked Age*** as our subject for in-depth investigation. This has the virtue of bringing together elements from each of the themes identified through the consultation process, while promising scope for significant near-term and long-term impact. The published report will outline evidenced-based recommendations targeted at individuals, academics, community and opinion leaders, policy makers, funding agencies and business and industry leaders, on the ideals and practices that should guide our understanding of citizenship in the midst of these dizzying social and technological changes.

**Andrew Briggs, Dominic Burbidge, Zeeya Merali & Michael J Reiss.**  
**Oxford, April 2019**

# SACRED SPACES



## THE CHANGING ROLE OF EDUCATION AND THE UNIVERSITY

*“Educational institutions are ideally placed to play a transformative role as the engine through which global society can attain human flourishing.”*

A recent MIT survey asked alumni whether their undergraduate experience had successfully armed them with the skills needed to navigate adult life. Unsurprisingly for an elite science and technology college, 81% of respondents replied that they had been “very well” trained to think logically and analytically. When asked whether they had been equally well prepared to identify moral and ethical issues, however, the positive responses fell to just 14%.<sup>3</sup> Meanwhile, record-breaking numbers of Yale undergraduates have been flocking to a flagship course that teaches “how to live to a good life”.<sup>4</sup> In previous years, Yale had reported that more than half its undergraduate body had sought mental health care during their studies.<sup>5</sup> It is clear that even the most prestigious universities are finding it challenging to equip their students to flourish in contemporary society.

### Key Ideas

- ❑ Universities originated in the medieval Catholic tradition. Today, as largely secular institutions, they are struggling to define their pastoral responsibilities and provide students with tools for moral reasoning.
- ❑ The role of education has become overly focused on creating material units of economic production. Since the financial crash of 2008, this has led to a fall in enrolment in humanities courses,<sup>6</sup> as students are drawn to subjects that will lead to greater financial security. This needs to be rebalanced.
- ❑ There is space to re-evaluate the purpose of universities within a secular context with the goal of creating a flourishing society. The value of economic success should be acknowledged alongside more holistic aims of improving wellbeing for all.
- ❑ Universities should work to increase diversity, actively recruiting students from around the world with an aim to reducing prejudice and international tensions.
- ❑ Educators should better equip students to navigate through unprecedented levels of online information, much of which is misleading or false.

3 2017 MIT Alumni survey: <https://ir.mit.edu/undergraduate-alumni-survey-2017>.

4 Psych 157: *How to Live a Good Life*, by Laurie Santos at Yale University, saw almost 1,200 students enrolled in 2018 – around a quarter of the undergraduate body. See “Yale’s Most Popular Class Ever,” David Shimer, *The New York Times*, 26 January 2018: <https://www.nytimes.com/2018/01/26/nyregion/at-yale-class-on-happiness-draws-huge-crowd-laurie-santos.html>.

5 Yale College Council Report on Mental Health, 2013: <https://static1.squarespace.com/static/586d882946c3c40a1c57b1ee/t/5875baf06a49630b1d28f122/1484110581172/YCC-Mental-Health-Report-1ms1ra1.pdf>.

6 “The Humanities are in Crisis,” Benjamin Schmidt, *The Atlantic*, 23 August 2018: <https://www.theatlantic.com/ideas/archive/2018/08/the-humanities-face-a-crisisof-confidence/567565/>.



## CITY PLANNING AND URBAN ARCHITECTURE

Stress leads to the loss of over 11 million work days a year in the UK alone.<sup>7</sup> The average city worker must grapple with traffic jams, crowded public transport, air pollution and dismal streets, before reaching their place of employment. At work, they will likely be isolated in artificially-lit cubicles in busy offices, discouraging interaction. Yet, ironically, they will also be surrounded by noisy distractions, preventing quiet creative thought. Little wonder then that city dwellers in the developed world have been reported to have a 21% greater likelihood of developing anxiety disorders, and a 39% increased risk of mood disorders, compared to those who inhabit more rural areas.<sup>8</sup>

Places of worship have stood for millennia as spaces that promote personal reflection and encourage community-building. Both practices have a rejuvenating effect. However, with waning levels of organised religious participation, the benefits of meditative spaces have also inadvertently been lost.

### Key Ideas

- ❑ There is increased interest in personal meditative techniques, such as 'mindfulness' — which is inspired by Buddhist teachings. Yet this places the burden on the individual without providing environmental support, or dedicated spaces to encourage calm, peaceful mindsets on a city scale.
- ❑ Cities in the developed world are already taking positive steps to design eco-friendly buildings and green community-friendly spaces. Offices, schools and universities provide both open spaces that stimulate collaboration and quiet spaces to inspire creative thought.
- ❑ There is scope to scale these ideas up to the city level: Promote horizontal rather than vertical cities, open up urban areas, reduce motor vehicle numbers, and pedestrianise streets to enable more interaction.
- ❑ These issues will be amplified in the developing world; the trend towards urbanisation is accelerating globally, with 96% of urbanisation projected to take place in the developing world by 2030.<sup>9</sup> Governments are not yet well equipped to handle this shift, which will have huge impacts on access to food and water and upon energy consumption, in both urban and rural areas.



7 Health and Safety Executive, UK: <http://www.hse.gov.uk/stress/>.

8 J. Peen et al., *Acta Psychiatrica Scand.* 2010 Feb;121(2):84-93. doi: 10.1111/j.1600-0447.2009.01438.x. Epub 2009; <https://www.ncbi.nlm.nih.gov/pubmed/19624573>.

9 World Bank press release, 17 April 2013: <http://www.worldbank.org/en/news/press-release/2013/04/17/developing-countries-need-to-harness-urbanization-to-achieve-mdgs-imf-world-bank-report>.

# REDISCOVERING MEANING



## LEISURE — THE FORGOTTEN PATH TO A LIFE WELL-LIVED

*“The essence of leisure is not to assure that we may function smoothly but rather to assure that we, embedded in our social function, are enabled to remain fully human.” — Josef Pieper (1948)<sup>10</sup>*

“Work expands so as to fill the time available for its completion,” Cyril Northcote Parkinson wrote presciently in 1953. For decades, we have been sold the myth that as technology liberates us from labour, we will have more leisure time. Yet, in information economies, digital technologies have served to make work elastic and limitless. As a culture, we celebrate—even worship—productivity, efficiency and excellence. This ethos even bleeds into how we consider the flipside of work: leisure.

We now judge our leisure activities using the same criteria for judging our work: Are we spending our leisure time efficiently? Does it effectively lead to restoration and recuperation (so that we can increase productivity)? Does it allow us to achieve something new? Are we demonstrating excellence through it?

Leisure is a neglected arena that should be divorced from productivity, and identified as a fundamental part of living where we can address questions of meaning, purpose and truth.

### Key Ideas

- ❑ Leisure has become instrumental to productivity, and thus is increasingly scheduled. Yet studies show that rigid scheduling undermines the enjoyment of leisure activities, while spontaneity is associated with greater enjoyment.<sup>11</sup>
- ❑ Abrahamic religious traditions call believers to hold a day of rest—Shabbat, Sabbath, Jumu’ah—as do other spiritual traditions across the world. This suggests a universal recognition of the need for regular rest as fundamental to human development.
- ❑ Behavioural psychologists examining play in human children across cultures and in non-human species have found links between play and creativity, problem-solving, psychosocial development and cognitive and brain development.<sup>12</sup> There is scope for studying leisure and play in adults in more depth to understand general human development.<sup>13</sup>

10 J. Pieper, *Muße und Kult*, translated by Gerald Malsbary, *Leisure — the Basis of Culture* (St. Augustine’s Press, 1948).

11 Malkoc, S. A. & Tonietto, G. A. (forthcoming). Activity versus outcome maximization in time management. *Current Opinion in Psychology*.

12 See National Institute for Play, <http://www.nifplay.org/science/overview/>.

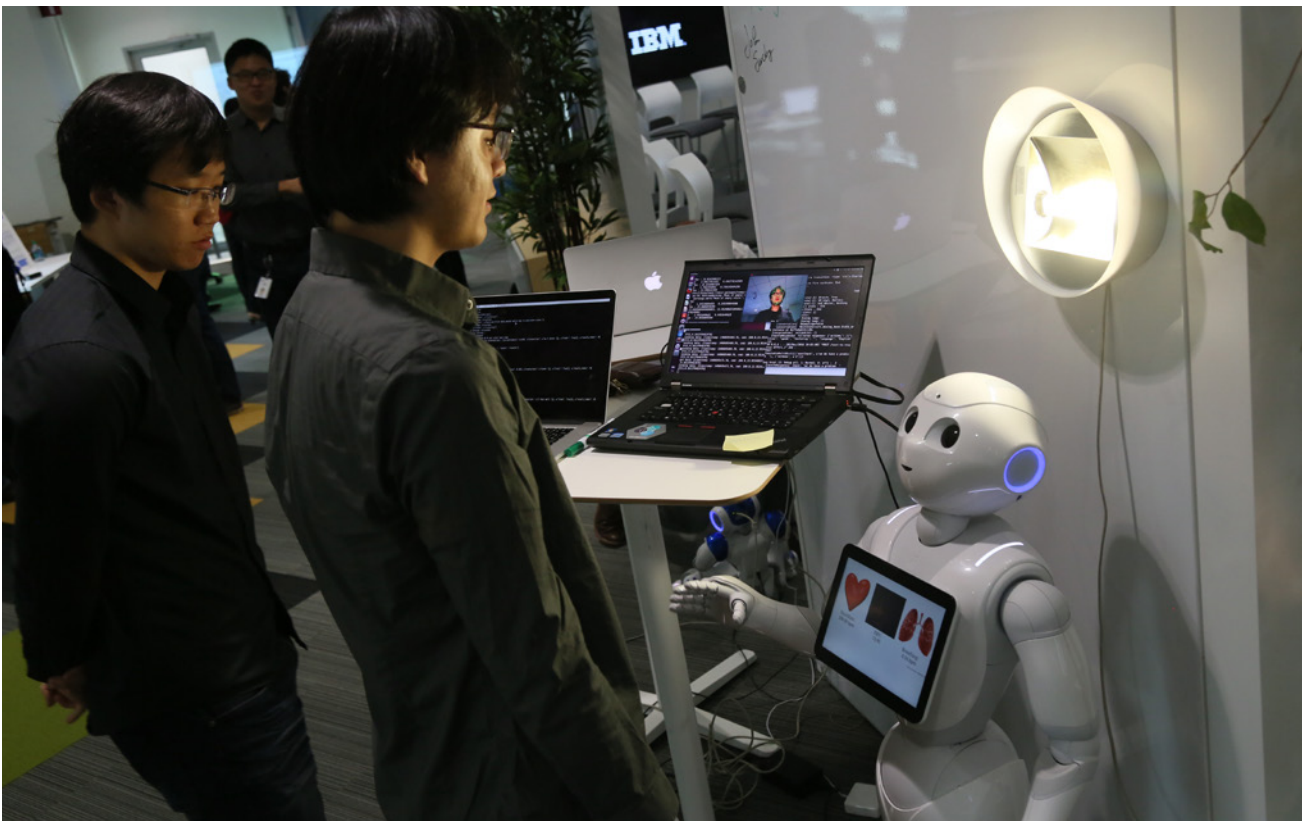
13 See, for example, *Positive Leisure Science*, ed. T. Freire. New York: Springer and Mannell, R. C. & Kleiber, D. A. (1997) *A Social Psychology of Leisure*. State College, PA: Venture Publishing.

## LONGEVITY, SUFFERING AND VULNERABILITY

The average human life is longer today than it has been at any point in history. Technology and medicine have contributed greatly to increased longevity, health and comfort. Yet a great deal of human experience lies beyond our control. Our bodies continue to become frail over time and, towards the end of life, we may lose our sense of purpose and the faculties that in many ways define us as human beings. How can people flourish in the midst of vulnerability, suffering and death?

### Key Ideas

- ❑ Robots may need to play an increasing role in the care of the elderly and the vulnerable. Is there a danger that technology will be misused as a substitute for human compassion, rather than as a complement to it? Will reliance on technology, without consideration, increase isolation and loneliness?
- ❑ The common narrative is that technology will save people from sickness and vulnerability – and maybe even, in the extreme transhumanist view, death. Is this view implicitly held by policy makers when considering end-of-life issues, to the detriment of large swathes of the population?
- ❑ People's views on palliative care options and euthanasia may differ, depending on their religious or non-religious beliefs. Should medical professionals be trained to address these differences more openly?
- ❑ Theology does not seek to overcome vulnerabilities, but recognises that one can flourish amidst suffering and death. Ethnographies of exemplary Christian communities that create support networks for those with intellectual disabilities, such as L'Arche, or more secular communities like 'death cafes', could assess which beliefs and practices lead to greater resilience.



George Chen, a Rice University PhD student, has his heart and breathing rates measured by a prototype IBM Multi-Purpose Eldercare Robot Assistant. Photo by Jack Plunkett/Feature Photo Service for IBM ([CC BY-ND 2.0](https://creativecommons.org/licenses/by-nd/2.0/))

# THE HYPER-CONNECTED WORLD



## BUILDING COMMUNITIES: GOING GLOBAL vs GOING LOCAL

*“Digital technologies have reshaped the way we communicate – getting us close to those who are away, and away from those who are close.”*

Connection is essential for human flourishing. For many people, it is what makes life worth living and what makes it possible to flourish within suffering. Tackling many of today’s greatest problems – climate change and the threat of nuclear war, for instance – requires connection on a global scale. Modern communication technologies and social media have given many of us instant worldwide reach, facilitating this need.<sup>14</sup> But, as many parents of teenagers lament, more screen time often comes at the expense of paying attention to real-world interactions. The rise of global connections risks eroding many forms of local connection: a) loving relationships; b) friendships; c) group belonging; and d) meaningful work.

### Key Ideas

- ❑ Globalisation is often viewed as antithetical to community identities and committed relationships.
- ❑ Both local and global connection are necessary for human flourishing. Can they co-exist rather than negate each other?
- ❑ Can technology help build, rather than break, connections through social media, virtual communities of interest, and technological disruption?
- ❑ Principles from complex systems theory and biomimicry can help inform how local connection and global connection can be achieved. Each system (small-scale group) is contained within multiple higher-level systems (nationalism), which are contained within a super-system (globalism).

<sup>14</sup> G.A.D. Briggs, Science and technology—profit or loss? In *Building a Society where Relationships Matter* (ed N. Baker), 167-182. Arena Publishing, Aldershot (1996).

## NEGOTIATING FRACTURED IDENTITIES AND FINDING SELF-BELIEF

*“Is there a need for a theology of online forgiveness?”*

As social beings we have always constructed our image and identities, in large part, based on the opinions and validation of our peers. But this process has become increasingly complicated in the age of social media, where people’s self-reports of their lives are constantly judged by their followers and ranked by algorithms. A recent survey found that 40% of UK millennials now choose holiday destinations based on their ‘Instagrammability’ (that is, how photogenic the place is and whether shared photos will garner more ‘likes’ on social media).<sup>15</sup> How has digital technology changed the way we assess our own worth?

An unsavoury byproduct of online communication has been the rise of cyber-bullying, shaming and social mobbing. In numerous cases, the punishment dished out for an individual’s (real or imagined) misdeeds – committed both online and offline – is grossly disproportionate to any wrong that the individual may (or may not) have committed. And many have faced material consequences offline as well, such as the loss of their jobs, or have been driven to suicide.

### Key Ideas

- ❑ Should we provide positive, alternative tools for character building that can inoculate people from some of the more addictive and harmful aspects of technology?
- ❑ How are people changing their real-world behaviour to maximise reward from social media algorithms? Could strategies for moral reasoning be taught at universities or in schools, to counter the culture of chasing ‘likes’ on social media?
- ❑ Social media increases our global reach but tends to diminish our real-world engagement with people around us. Can an optimal balance between the two be reached?
- ❑ The always-on culture shrinks our personal time, creating a false sense of urgency, and a need to respond and comment, without due thought.
- ❑ Can the right to privacy and freedom from online abuse be balanced against the right to free speech and to air controversial opinions?



15 ‘Two-fifths of millennials choose their holiday destination based on how “Instagrammable” the pics will be,’ Schofields Insurance press release, 3rd April 2017: <https://www.schofields.ltd.uk/blog/5123/two-fifths-of-millennials-choose-their-holiday-destination-based-on-how-instagrammable-the-holiday-pics-will-be/>.

# MACHINE LEARNING



## AUTOMATION AND THE FUTURE OF WORK

*“Vocation bridges the gap between the best that I have to offer and the worst problems humanity is facing. We need to build vocational wisdom.”*

Capitalism defines humans by their economic worth: as a worker, a consumer, or a product whose personal data can be sold. Advances in artificial intelligence (AI) and machine learning will almost inevitably disrupt traditional models of employment. Discussions of how to prepare society for this eventuality tend to offer solutions in which workers in one employment sector can simply be shifted to another completely different one, to make up the numbers. This naive materialistic approach, which treats humans as indistinguishable and essentially swappable, will not equip people to deal with the psychological loss of purpose caused by unemployment.

### Key Ideas

- ❑ We need new models for describing human purpose that go beyond the economic and that reclaim a sense of vocation.
- ❑ Case studies of large-scale sudden unemployment (for instance, through the closure of factories or mines) reveal potential risks to communities, self-identity and gender dynamics due to under-employment or unemployment.
- ❑ A trans-global survey of existing ethnographic research can examine the impact of automation, of cognitive or emotional labour displacement because of AI, of the development of platforms that enable new modes of employment, including gift and attention economy workers (for example, YouTube content producers or social media influencers) as well as gig economy work (for example, Uber and Deliveroo models of employment).
- ❑ Science fiction provides a potential space for thought experiments around AI and automation, and what our future would be like without the limitations of employment or with new human purpose after capitalism (for example, *WALL-E*, *Elysium*, *Star Trek*, *Autonomous*). They also draw on the tensions between human ease and human obsolescence.
- ❑ As AI becomes more advanced, we may reach a point where “machines” can be considered to be persons, with their own rights. Should we consider teaching religion or religious values to AI in the future?

## ACTIVE CITIZENSHIP IN THE AGE OF AI

*“If an AI can accurately gauge your political leanings and predict the social and personal issues that you care about most deeply, should it cut out the ‘middle-human’ and cast your vote for you in the most optimal way?”*

AI algorithms already influence what we buy, what we eat, whom we date, and how we vote, based on information about our preferences, gleaned from harvesting our personal data. AI is beginning to supplant humans in decision-making processes pertaining to many areas of public life, including policing and medicine. On the surface, that may be no bad thing, since an idealised, unbiased and ultra-logical algorithm could one day be able to calculate what is best for you, and for society, far better than you or your emotional, prejudiced and illogical fellow human citizens. But is there a danger that unwittingly disengaging from decision-making processes that affect our lives will be detrimental both to us as individuals and to society as a whole?

### Key Ideas

- ❑ Machine-learning algorithms have been criticised for amplifying programmed-in bias (with implications for such things as racist criminal profiling) and for the lack of transparency regarding decision-making processes.
- ❑ How should humans re-evaluate our rights and responsibilities as citizens in both our local and the global community, so that we can work fruitfully with the opportunities afforded by AI, rather than becoming enslaved by it or avoiding it altogether?
- ❑ The changing decision-making landscape raises fundamental questions around the meaning of life and the purpose of communities, inviting insight from theological perspectives.



# MEDICAL ETHICS



## GENE EDITING

*“Have we seen the last Olympic games in which there were no genetically modified athletes?”*

Suppose that a company can offer a gene-editing service that would increase the likelihood of a child growing up to take a place at an elite university, become a sports champion, or a virtuoso musician? Pushy parents might be willing to pay for it—but ethically, should companies offer it? The possibility of gene modification to cure certain genetic diseases is already here through CRISPR/Cas9 techniques, and has been approved for trials by the US Food and Drug Administration. The ethical basis for gene editing to cure an individual’s disease or disability seem straightforward. Questions focus instead on enhancement and on whether a correction should be for that individual alone, or for their germ line and hence all their progeny.<sup>16</sup>

### Key Ideas

- ❑ Currently, germ-line modification is widely prohibited for precautionary reasons: a mistake might propagate indefinitely, and be nigh impossible to correct. But if those risks could be mitigated, should such changes be allowed?
- ❑ What are the ethical issues surrounding gene editing for enhancing human capacity? If a given genetic modification would significantly reduce the risk of a painful and fatal disease ever occurring, should it be allowed, or even required?
- ❑ Will such enhancement opportunities be available to all? Or restricted to those who can afford them, increasing inequality?

16 G.A.D. Briggs and T. Brears. Ethical considerations in the era of gene synthesis. *MedNous* 8-10 (January 2019).

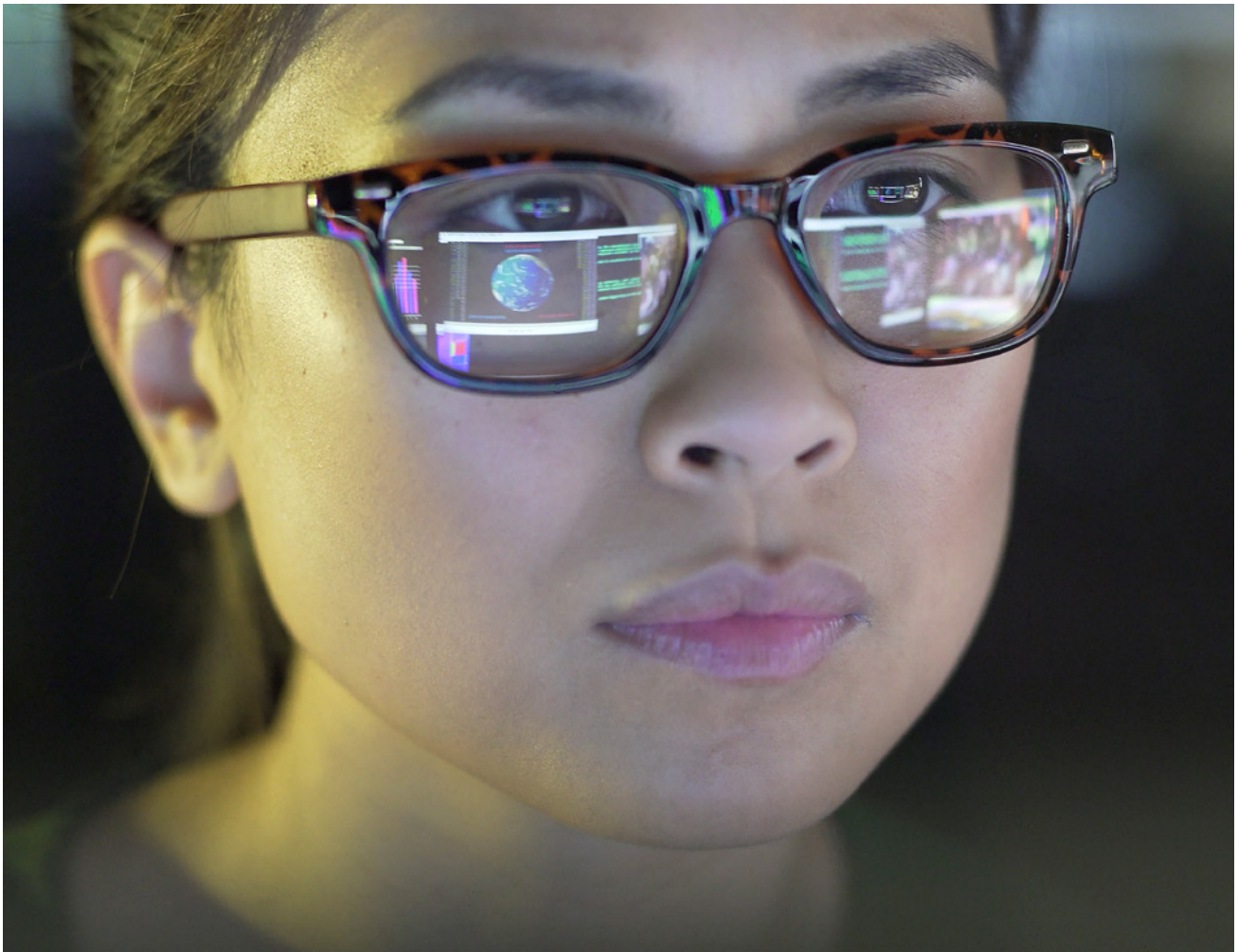


## TOPIC SELECTION

On the preceding pages we outlined themes that were identified, through a six-month international consultation process, as key areas for consideration. The task was then to find a suitably focused topic for in-depth investigation, during the research phase of our project, from January 2019 to April 2020. We felt that the ideal subject for our final report should encompass crucial issues raised during the primary consultation phase, while also offering the greatest potential for impact—in both the near and long term. In this section, we describe why we have selected ***Citizenship in a Networked Age*** as our area for study. We intend to publish an evidence-based report on this topic, in 2020, based on dedicated scholarly research and further expert consultation. In the pages that follow, we explain the pivotal questions to be addressed in our report.



One of the major recurring themes outlined by both secular and religious scholars concerned *telos*—or purpose—articulated through worries that individuals, and even whole societies, may be suffering from a lost sense of vocation and moral purpose. At our consultation held in Paris alongside a meeting of the OECD for instance, there was urgent need felt to redefine the meaning and overall goals of education. The need is both to enrich the experience of individual students during their time at school or university and to better prepare them for life, while also having a wider impact on their communities by educating them to help create a society in which all can flourish.



Others identified the untapped potential for using leisure to develop one's meaning of life, rather than simply as a pause on productivity. Those considering the future of work and the psychological risks to those who lose their jobs in the face of increasing automation highlighted the importance of nurturing a sense of vocation in workers. They denounced the modern trend to treat humans as little more than means to ends, defined by their functions and essentially interchangeable.

Another resonant theme surrounded identity construction and how new pressures from social media and digital technologies are causing us to redefine our self-image and what creates value in our lives. This question is further complicated by the competing pulls of local and global community responsibilities on individuals. Each of us is forced to find new ways to evaluate and encourage the positive aspects of our citizenship within both local and global communities, while minimising potentially harmful influences. We might also ask how our identity is shaped by the active role that we choose to take (or to not to take) within each of these communities. Is there scope to enhance our agency through embracing our responsibilities towards the local and the global community?

At the deepest level, all the issues point to questions about what it means to flourish in today's society. An inescapable component of this is how the decisions we make about ourselves and others shape the societies we live in. The issues about decision-making speak to uncertainty over what constitutes truth, meaning and purpose in our everyday lives, and what will form the basis for communities of trust for our future journey.

We are embedded in a global community that is connected on an unprecedented scale, and technological progress is accelerating. The strains that these changes place on individual identity are only beginning to be discovered, but are likely to be deep and widespread. How these changes create positive new opportunities for engagement within local communities and globally, however—and what negative pitfalls might simultaneously arise—may vary depending on location and community structures. To address this challenge, we have chosen to ground our report on ***Citizenship in a Networked Age***, exploring the citizenship that will be needed to meet the relational changes brought about by the world's current social and technological transformations. At the core of this interest is the changing way individuals are each tied to one another through the shifts in communicative structures and economic relations that we have created for the 21st century, and the role of human decision-making in the midst of all these changes.



# CITIZENSHIP IN A NETWORKED AGE

## REPORT OUTLINE

Humans are social by nature, finding particular fulfilment in joint efforts and partnerships, with each person best understood as a person-in-community. Our community life and even our citizenship helps realise these aspects of our nature. Citizenship can be defined as membership of the body politic that forms the person's community. In its normative sense, it alludes to a spirit of public service, justice, neighbourliness, democratic participation and moral reasoning. We often fall short of these ideals, and yet they continue to guide us, and even inform us on who is failing to contribute. In their realisation, we form active and well-connected communities in pursuit of the common good.

What makes a good citizen in this new age of decision-making through algorithms and AI? While much focus has been placed on how to make AI ethical, relatively little focus has been placed on the ethical ideals required from citizenries and democracies amidst the changing decision-making landscape. The co-evolution of human and machine decision-making processes need not be seen as zero-sum. The opportunities afforded by technological advances hold the potential to be a useful tool for realising good citizenship, but only if they are based on a true understanding of who we are and where we want to go.

The report will explore the changing decision-making landscapes in our networked age and distinguish between those developments that are practical optimisations and those that are substituting instrumentalist paradigms for previously understood areas of moral deliberation. The report will propose ways that this tension can be navigated and suggest what virtuous ideals of citizenship could do to promote moral and practical reasoning for our networked age.

# Citizenship in a Networked Age



TEMPLETON WORLD  
CHARITY FOUNDATION



## PIVOTAL CHANGES IN RESPONSE TO TECHNOLOGICAL ADVANCES

Our project puts citizenship first, asking what it means to be a citizen and what it means to do civic engagement successfully in a context of rapidly-changing decision-making through algorithms and AI. The following table sets out some of the more difficult challenges taking place as a result of living in the networked age. These trends could threaten our ability to be and act as citizens; they risk a breakdown in social solidarity and a subjection to arbitrary authority.

Drawing, specifically, from virtue theory within philosophy and understandings of conscience and moral reasoning in the world's faith traditions, the project emphasises fostering and promoting certain characteristics of the human person (though these suggestions are for now tentative) if our understanding of citizenship is to meet head-on the changing nature of public decision-making.

<b>Negative societal changes in response to technological advances</b>	<b>Positive human skills that may be fostered to counter these</b>
We are increasingly (often unwittingly) committed to algorithmic decision-making in public affairs without full awareness of its implications.	Moral reasoning skills are needed to enhance active decision-making by citizens, aided by fair recommendations from algorithms, rather than defined by them.
We find it harder to develop political views privately, in the face of targeted social media campaigns.	We need to rethink the public and private sphere distinction, given new online pressures.
There is little online forgiveness – complicated by debates surrounding the right to be forgotten online.	Forgiveness should be promoted, along with the understanding that active ‘forgetfulness’ may be needed in some form to accompany it.
We can find ourselves trapped in social media bubbles, which echo our own opinions and cut us off from challenging views.	We need to recognise the value in expanding our real-world social networks, while also opening ourselves up to more (reasonable) diverse opinions online.
Online platforms can be addictive and thus hard to boycott, even when we recognise any negative effects they have.	Offline support structures can be encouraged to enable people to quit, or to modify their use of, detrimental online services.
Public goals are being increasingly quantified and defined according to instrumentalist principles.	We must strive to understand when it is that competing public policy options cannot be optimised by algorithms.
Nations are struggling to regulate cyber crimes and unethical behaviour on online platforms.	Just political institutions are needed to work with independent cybergovernance institutions.
Hate speech, fake news, cyber bullying and online shaming are on the rise.	Civil democratic deliberation should be promoted rather than militant interest-based advocacy.
There is a growing disconnect between global moral views and local living.	Political representation must be in tune with local views as well as the global picture.

# APPENDIX

## ACKNOWLEDGEMENTS

We wish to express our thanks to all those who engaged with us in discussions as we considered the promotion of human flourishing through the best of scientific insight and spiritual wisdom. We are particularly indebted to Max Bonilla, Nikki Macmichael and Andrew Serazin for their integral roles in this process. We also thank Kristen VanBlargan for her work on the design of this document.

We list, out of gratitude, some of those who participated in the various working groups and consultation meetings, with no implication that this report necessarily represents the views of anyone listed.

### The Oxford Local Advisory Group

Paul Billingham  
Jonathan Brant  
Michael Burdett  
Sir Keith Burnett  
Oliver Butler  
Richard Ekins  
Donald Hay  
Tom Simpson  
Beth Singler  
Bethany Sollereder  
Graham Ward  
Sam Wren-Lewis  
Bonnie Zahl

### Paris

Kim Deoksoon  
Ross Hall  
Valerie Hannon  
Christian Hausner  
Sumitra Pasupathy  
Andreas Schleicher  
Sean Slade  
Luca Solesin  
Michael Stevenson  
Kerstin Wilmans  
Stanton Wortham

### Rome

Paul Haffner  
Juan Andrés Mercado  
Paul Mueller  
Giuseppe Tanzella-Nitti  
Vincenzo Viva

### Pasadena, California

Justin Barrett  
Mark Lau Branson  
Theresa Edy-Kiene  
Benjamin Houltberg  
Pamela King  
Liseth Rojas-Flores  
Roger Wagner

## Ayia Napa

Israel Belfer  
Catalina Oana Curceanu  
Dror Fixler  
Abdullah Hamidaddin  
Rolf Heuer  
Riad Kassis  
Kirsi Lorentz  
Ross McKenzie  
Tom McLeish  
David Myers  
Efthymios Nicolaidis  
Leonidas Pantelides  
Francis Piccand  
Shabtai Rappoport  
John Stackhouse  
Emmanuel Tsesmelis  
Peter Weiderud  
Adrian Weller

## Nairobi

Amina Abubakar  
Alex Awiti  
Mary Baaru  
Carolyn Chakua  
Lily Chimunya  
Daniel Yaw Fiaveh  
Kimani Chege Gabriel  
David Harrison  
Eunice Kamaara  
Seema Lasi  
Magdalene Mutua Kanini  
Thabsile Magagula  
Francis Muregi  
Hafsa Mwita  
Alice Wairimu Nderitu  
Kimani Njogu  
Callen Nyamwange  
Omowumi Ogunyemi  
Eugene Ohu  
Stella Moraa Omari  
Kennedy Karani Onyiko  
Karen Oyiengo  
Michael Rahfaldt  
Sahaya Selvam  
Robert Serpell  
Everett Worthington



TEMPLETON WORLD  
CHARITY FOUNDATION



UNIVERSITY OF  
OXFORD

2019