What Do We Mean When We Talk About a Good Digital Society?

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Abstract

In this paper, we argue that, in order to think about the possibilities of a good digital society, we need to consider what we mean when we use this phrase. This is because a good digital society is ill-defined and contested, despite being widely assumed as a goal, and the resulting lack of consensus is demonstratively harmful. The Digital Good Network is leading work in this area, examining how the term 'good' is used and understood in digital contexts, in order to answer the urgent questions: what does a good digital society look like? How do we get there? In this paper, we map out the scale and nature of this task, whilst elaborating on what we believe to be the necessary conditions of moving towards a good digital society. First we summarise important debates and contributions. Then we identify three societal challenges which need to be addressed in order to arrive at a good digital society: equity, resilience and sustainability. We conclude by making three recommendations for future directions of travel: listen to diverse users; consider context; and take a principles-based approach.

Keywords: defining the good; digital good; equity; resilience; sustainability; justice; principles-based approach; digital good index

Introduction

National polls consistently find agreement that digital technologies should be, but are not always, good for societies.[1,2] And there is plenty of evidence that even the most well-intentioned technologies can end up doing harm, deepening existing inequalities or creating new ones. For example, what was deemed by UK policymakers to be a good algorithm[3] for determining exam results during the early days of the Covid-19 pandemic disadvantaged children from state schools. A chatbot[4] created to provide healthy eating guidance exacerbated people's eating disorders by suggesting harmful advice. Dating apps created to enable romantic connections are used to harass and control.[5]

It is important to make visible the harms that can result from digital technology deployments, like those mentioned above, because while they exist, the digital society we have is not the digital society that we want. But what kind of digital society *do* we want? Put differently, what does a good digital society look like, and how do we get there?

That simple, four-letter word, *good*, is more complex than it seems. As a result, the 'good digital society' is ill-defined and contested, despite state, industry and civil society actors mobilising it in a range of digital-for-social good initiatives, from drones[6] to statistics 'for the public good'[7] or 'that serve the public good'. The topic of data alone has inspired a tranche of 'for-good' initiatives, including data.org[8], the website of which includes the motto 'Democratising data, for good', and Data For Good[9], which describes itself as 'a collective of do gooders, who want to use their powers for good, not evil, to help make our communities better through data'. Such initiatives neither mobilise a shared view of the social good, nor do they define it. We contend that to build a good digital society, we need to think about definitions, about what we mean by a good digital society. Only then can we start to move towards it.

Contested definitions of the good

Diverse, often contradictory understandings underpin ideas of the good, or of the good digital society, and there is no consensus on how we might evaluate or advocate for technologies that support the social good. Differing perspectives on what is good highlight the important question of who gets to decide whether, how, when, where and for whom digital technologies are good.

Philosophers have long debated the conditions that enable people to live good lives, from Socrates' notion of the good life as an examined life for which we possess the powers of critical reasoning,[10] to Aristotle's notion of eudaimonia, or the ethos of living well.[11] This has since evolved into virtue theory, wherein conduct and repeated actions form the site of assessment of good lives, and this in turn has informed Vallor's framework for technomoral values and the capabilities approach,[12,13,14] a practical framework which considers how humans might realise their potential

1　　Kennedy, H. M. Taylor, S. Oman, J. Bates, I. Medina-Perea, H. Ditchfield & L. Pinney (2021) Living With Data Survey Report.

2　　The Ada Lovelace Institute and The Alan Turing Institute (2023) How do people feel about AI? A nationally representative survey of public attitudes to artificial intelligence in Britain.

3　　BBC News (2020) A-levels and GCSEs: How did the exam algorithm work?, 20th August.

4　　Hoover, A. (2023) 'An Eating Disorder Chatbot Is Suspended for Giving Harmful Advice', *Wired Business*. 1st June.

5　　Burgess, J. K. Albury, A. McCosker & R. Wilken (2022) *Everyday Data Cultures* (New Jersey, Wiley Press).

6　　Drones for Good (n.d.) Drones for Good podcast.

7　　UK Statistics Authority (2020) Statistics for the public good: Informing the UK. Improving lives. Building the future. UK Statistics Authority Five year strategy, 2020-2025.

8　　Data.org (2024) Data.org website.

9　　Data For Good (2022) Data For Good website.

10　Nozick, R. (1990) *The Examined Life: Philosophical Meditations* (London, Simon & Schuster).

11　Aristotle, et al. (2009) *The Nicomachean Ethics* (Oxford, Oxford University Press).

12　Nussbaum, M. (2011) *Creating Capabilities* (Boston, Harvard University Press)

13　Sen, A. (2009) *The Idea of Justice* (London, Penguin Books).

14　Vallor, S. (2016) *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting* (New York, Oxford University Press).

in different cultures and contexts. Similarly in Eastern philosophy, Buddhist notions of dharma have been translated into public policy.[15] More recently, Kant conceptualised goodness as duty-based, towards both ourselves and others, and in O'Neill's work, Kantianism is extended as a practical discipline, wherein technology developers are responsible for ensuring that technologies support good lives.[16] The philosophy of technology as a whole explores whether diverse technologies are good or bad for society and whether it is possible at all to lead good lives in a technological world.[17,18]

Definitions of the good life have been dominated by narrow, global North narratives, despite extensive Eastern thought about what it means to live well. Likewise, thinking from Global South or Indigenous perspectives throw new light on Western assumptions, including that the good life is something worth talking about at all.[19] Who should define and articulate the good life is rightly increasingly contested.

Dominant definitions have also tended to prioritise the individual over the community. This is also contested by the work of contemporary communitarians, such as Sandel, for whom communities should articulate and define what goodness looks and feels like.[20] In short, distinct philosophical traditions arrive at different conclusions about the conditions that enable people to live good lives and often, the views of people from disadvantaged, minoritised or underrepresented groups, who can be most negatively impacted by harmful technology, are not taken into account.

One reason that definitions of a good digital society are contested is because a good digital society is political.[21] If our politics differ, then our ideas about what constitutes a good digital society are also likely to diverge. The politics of good digital societies surfaces in debates about whether the notion of the digital good itself is a powerful enough concept. For some critical commentators, in the context of data- and AI- systems, the adjective good, like fair, is an 'infinitely spacious word that any AI system can be squeezed into'.[22] Justice or equity are what we should be striving for, some argue,[23,24,25] not vaguer, ill-defined notions like the good, seen as a 'floating signifier'[26]- that is, its meaning is unspecified and this opens it up to misuse. At the same time, some argue that the terms justice and equity can be subjected to this same critique.[27]

Yet empirical research with members of the public has found that these terms – good and fair on the one hand, just and equitable on the other – are not as distinct as critical commentators propose, at least for people impacted by technological developments.[28] Rather, they are interwoven with each other: talking about the social good can be a way of expressing concern about digital injustices and inequities. So the term good is not *only* problematic, as critics suggest. It can also be a useful tool for considering the experiences of people from groups different to our own and for talking about the politics of data. In short, the digital good has many interpretations, and we need to make sure that we take on board the understandings of people from diverse, underrepresented groups as we think about how to define the good digital society.

The Digital Good Network[29] is examining how the term 'good' is used and understood in digital contexts, to help answer the pressing questions: what does a good digital society look like? How do we get there? The Digital Good Network is an interdisciplinary, cross-sector, social science-led research network which aims to advance understanding of how digital technologies can have good societal outcomes. It is made up of a management team (the authors of this paper), a college of experts, and recipients of support and funding, in the form of small research grants, fellowships, internships and training.

In January 2024, we gathered face-to-face in Sheffield to build our network. At the event, in a keynote lecture, College of Expert member Charlton McIlwain, author of *Black Software*,[30] asked whether the concept of the digital good was 'good enough'.[31] He drew distinctions between doing good *for, with* and *by*. He likened 'doing good *for*' to white saviourism[32]– that is, philanthropy, or knowing experts imposing their version of the good on communities they perceive to be in need. Much better, he proposed, is doing good *with*, or allyship, actively supporting people from disadvantaged groups in ways which respect lived experiences. Better yet, he argued that we might aim to do good *by*. For McIlwain, 'doing good *by*' means not simply providing resources to people underrepresented in or excluded from digital society decision-making. It also means handing control to intended beneficiaries - of how said resources are deployed and how the good is defined.

15   Singh, U. (2008) *A History of Ancient and Early Medieval India: From the Stone Age to the 12th Century*. (Pearson Education India).
16   Burton. H. & O. O'Neill, (2021) *Kant, Applied: A Conversation with Onora O'Neill* (Open Agenda Publishing, Inc).
17   Brey, P. (2012) 'Well-being in philosophy, psychology and economics', in P. Brey, A. Briggle & E. Spence (eds.), *The Good Life in a Technological Age* (New York and London, Routledge).
18   Feenberg, A. (2002) *Transforming Technology: a critical theory re-visited* (Oxford, Oxford University Press).
19   Campos Navarrete, M. & A. Zohar (2021) 'Rethinking sustainable development by following Indigenous approaches to community wellbeing', *Tapuya: Latin American Science, Technology and Society*, 4:1.
20   Sandel, M. (2010) *Justice* (Harlow, Penguin Books).
21   Religion also influences understandings of what is good, but in debate about digital technology, politics is more significant, hence our focus on it here.
22   Kalluri, P. (2020) 'Don't ask if artificial intelligence is good or fair, ask if it shifts power', *Nature* 583, pp.169-169.

23   Costanza-Chock, S. (2018) *Design Justice: community-led practices to build the worlds we need* (Boston, MIT Press).
24   D'Ignazio, C. & L. Klein (2020) *Data Feminism* (Boston, MIT Press).
25   Taylor, L. (2017) 'What is data justice? The case for connecting digital rights and freedoms globally', *Big Data & Society*, 4:2.
26   Lévi-Strauss, C. (1987 [1950]) *Introduction to Marcel Mauss* (London, Routledge)
27   Williams, R. & A. Hinterberger (2016) 'Arguing with Justice: Brexit and Biomedicine', *Somatosphere*.
28   Kennedy, H., H. Ditchfield, S. Oman, J. Bates, I. Medina-Perea, M. Fratczak & M. Taylor (forthcoming) How people connect fairness and equity when they talk about data uses', *Big Data & Society*.
29   ESRC Digital Good Network (2024) ESRC Digital Good Network website.
30   McIlwain, C. (2020) *Black Software: the internet and racial justice, from the Afronet to Black Lives Matter* (Oxford, Oxford University Press).
31   McIlwain, C. (2024) 'Digital Good, Enough?', *Digital Good Network* keynote lecture.
32   Khan, T., K. Dickson and M. Sondarjee (eds) (2023) *White Saviourism in International Development* (Quebec, Daraja Press).

Building on this, at the same event, Lexi Webster, principal investigator on the Digital Good Network-funded project 'Queer Joy as Digital Good'[33] suggested adding 'doing good *as*' – that is, communities doing good for, with and as themselves. We suggest that 'doing good by' and 'doing good as' respond to the need to think about whether, how, when, where and for whom digital technologies are good[34] in definitions of the good digital society. These questions are rarely central to digital society policy and practice, limiting efforts to ensure that digital technologies work for the diverse publics using them.

So good is a vague, floating signifier which, at worst, is misused in 'goodness-washing' of still-harmful technology – that is, instrumentalisation of the term good, rather than enacting the digital good as defined by impacted communities. Some may think that 'good' and 'digital' do not and should not go together, because the digital causes too many harms. Or that we have not yet done enough work identifying and addressing harms, and that we should concentrate our efforts on more of that. Some may need persuading that a focus on 'the digital good' is needed, as opposed to other terms that may seem to do a better job of acknowledging the scale of the challenge or the need for shifts in power, like, say, digital justice.

Certainly, we cannot lose sight of everything we know about the harms, inequities, and negative consequences of some digital technologies. But we contend that we must orient our efforts to doing something productive too. We take inspiration from US sociologist and critical race scholar Ruha Benjamin, who reminds us:

> *we should remember to imagine and craft the worlds we cannot live without, just as we dismantle the ones we cannot live within.*[35]

In other words, we need to think about what a good digital society looks like and how we get there. We argue that social science and humanities scholars and allies from policy, practice and civil society need to lead the thinking here. Our network, which funds research activities that bring together sectors and disciplines, provides a model-in-the-making for how a group of people with multiple interests might identify and work towards the digital society we want. We believe that, if we only focus on digital wrongs and harms, if we do not try to be part of the conversation about the digital future, if we do not imagine and craft the worlds we cannot live without, we - social scientists, humanities scholars and our allies - may find that we are left out of shaping our digital society. So we propose that we use our imaginations, challenge how things are and identify how we want them to be. Or, as Toni Morrison puts it, we should 'Dream a little before [we] think.'[36]

We argue that thinking about what a good digital society looks like and how we get there is important for a number of reasons. Another Digital Good Network College of Experts member, Susan Halford, said at our January event that the concept of the digital good has 'convening power'. In other words, it is inclusive with regard to who joins the conversation, who is willing to sit around the table. It enables us to talk to and work with powerful policy-makers and practitioners as well as civil society and diverse citizens. It is potentially inclusive of justice, rights, equity. It begs the question 'digital good for whom?' It should also be seen as an object of study, Halford proposed, not as a given or taken-for-granted concept, for all of the reasons mentioned above. It is strategically and operationally useful, as well as conceptually rich. It could be transformative, inching us towards 'the worlds we cannot live without'. Maybe we will not arrive at a good digital society. But, as advocates of web accessibility for people with disabilities remind us, it is the journey, not the destination, that matters. We make some suggestions about the characteristics of that journey below.

Components of the good: three priorities

The challenge of answering the question W*hat does a good digital society look like?* should not be underestimated. As well as the contested definitions that we have outlined above, there is also a vast array of technologies and innovations that make up our digital society: social media, MedTech, FinTech, climate tech, wearables, AI, machine learning, large language models, automation, AR and VR, IoT, smart cities and spaces, data capture processes, physical and virtual infrastructures and more. Likewise, digital technologies are deployed extensively across domains, including health and wellbeing, education and research, growth and innovation, culture and communities, public services, everyday life, and more.

And it is a challenge that extends beyond the digital. A good digital society is likely to share many of the characteristics of a good society. With this broader context in mind, we propose that it is not possible to arrive at a good digital society without addressing three major, contemporary societal challenges, which we have identified as urgent and pressing: **equity, resilience** (a term we use to refer to collective wellbeing), and **sustainability**.

Equity

Understanding what a good digital society looks like and how we get there requires thinking about equity. Centuries of structural inequity show little sign of meaningful alleviation. Because of this, there is an urgent need for greater social equity, a term which recognises that resources and opportunities need to be distributed differentially in order to

33   ESRC Digital Good Network (2024) Queer Joy as a Digital Good project page.
34   Ong, J. C. (2019) 'Toward an ordinary ethics of mediated humanitarianism: An agenda for ethnography', *International Journal of Cultural Studies*, 22:4 pp.481-498.

35   Benjamin, R. (n.d.) Personal website.
36   Cited by Benjamin, R. (2024) *Imagination: A Manifesto* (New York, WW Norton).

move towards more equitable outcomes. Digital technologies mediate, sustain and challenge inequities, for example in social movements like #BlackLivesMatter[37] and #MeToo[38], which began when hashtag prefixes connected people across digital networks, or when digital initiatives regarding historically troubled issues like health care exclude racially minoritised communities, as Digital Good Network team member Ros Williams has found.[39] Alongside race/ethnicity and gender, other attributes also matter, including (but not limited to) age, geography, language, socioeconomic status and dis/ability and their intersections.[40,41,42]

Digital Good Network research is exploring equity in various ways. Reema Patel is leading a project[43] investigating how to ensure that participatory data stewardship is inclusive as well as participatory. Other researchers are examining what the digital good looks like to children in deprived areas[44] in the UK, to queer communities online[45] and Indigenous communities in Brazil[46], in low-resource settings in Africa[47] and in the context of welfare.[48] These projects are all investigating how digital technologies can accommodate differences, resulting in a digital society that is good for all of us, regardless of who we are.

Resilience

A good digital society should also support our shared resilience. By resilience, we refer to individual and collective wellbeing, wellness and coping strategies in the face of pandemics, political conflicts, natural disasters, digital misinformation, online hate and in everyday life. Digital technologies are increasingly central to wellbeing, mental health and recovery.[49] They are mobilised to provide support and infrastructure for individuals' wellbeing and creative coping strategies, and for collective, humanitarian forms of crisis recovery in which communities seek to play an active role.[50]

But digital resilience also needs critical investigation. Many digital resilience initiatives focus on the individual, not the collective or societal, and different, contradictory conceptualisations of the good can mean they result in unexpected or harmful consequences. One example can be found in the work of Digital Good Network team members Jonathan Ong[51] and Isabelle Higgins, whose research finds that criticisms of how far right conspiracy theories spread in digital wellness communities ignore racialised, gendered and classed dynamics.[52] For example, particular communities might turn towards such online content and away from mainstream health infrastructures because they feel failed by them. Other Digital Good Network team members Abi Millings and Danielle Paddock are carrying out research[53] which explores the different ways that 'optimum' mobile phone use might be defined in the intimate romantic relationships of diverse user groups. Both of these projects demonstrate the need to unpack what good digital technology use looks like in specific contexts and for specific communities.

Sustainability

Likewise, we cannot ignore the environmental impacts of our digital technology uses and the pressing question of how to ensure that they are sustainable. People harness digital tools to address sustainability challenges, for example in video-call meet-ups instead of more damaging travel.[54] But our digital technology use has environmental effects on a planetary scale. Manufactured obsolescence, energy demands for cloud computing and training large AI models and lithium and bitcoin mining have enormous environmental and social costs, including uneven geographic flows of toxic e-waste.[55,56,57]

The rapid pace of digital change is also therefore a challenge for sustainable relationships between the Global North and Global South.[58] For example, large language models, already

[37] Black Lives Matter Foundation (2024) Black Lives Matter Foundation website.

[38] Me Too Movement (2024) Me Too Movement website.

[39] Williams, R. (2022) 'Reflections on the future of life-saving stem cell donor recruitment', in Paul Martin et al. (eds.) Being Human during Covid-19 (Bristol, Bristol University Press).

[40] Hale, S. (2014) 'Global connectivity and multilinguals in the Twitter Network', CHI'14: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems.

[41] Kennedy, H., R. Steedman and R. Jones (2020) 'Approaching public perceptions of datafication through the lens of inequality: a case study in public service media' Information, Communication and Society 24(12) pp.745-1761.

[42] Keyes, O. (2018) 'The misgendering machines: Trans/HCI implications of automatic gender recognition', Proceedings of the SIGCHI Conference on Human Factors in Computing Systems.

[43] ESRC Digital Good Network (2024) Participatory and Inclusive Data Stewardship project webpage.

[44] ESRC Digital Good Network (2024) Exploring Children's Attitudes Towards Notions of the Digital Good Through Hybrid Arts Practice project webpage.

[45] ESRC Digital Good Network (2024) Queer Joy as a Digital Good project webpage.

[46] ESRC Digital Good Network (2024) INDIGENIA: Generative AI for Indigenous Futures and 'Digital Good Living' project webpage.

[47] ESRC Digital Good Network (2024) Digital Health: The Digital Good in Low-Resource Settings in Africa project webpage.

[48] ESRC Digital Good Network (2024) What Does a 'Good' Digital Welfare State Look Like? project webpage.

[49] Millings, A., R. Buck, A. Montgomery, M. Spears & P. Stallard (2012) 'School connectedness, peer attachment, and self-esteem as predictors of adolescent depression', Journal of Adolescence. 35:4, pp.1061-1067.

[50] Trepte, S., P. K. Masur & M. Scharkow (2018) 'Mutual friends' social support and self-disclosure in face-to-face and instant messenger communication', The Journal of Social Psychology, 158:4, pp.430-445.

[51] Chia, A. J. Corpus Ong, H. Davies & M. Hagood. (2021) 'Everything is connected: networked conspirituality in new age media', AoIR Selected Papers of Internet Research.

[52] Baker, S. A. (2022) 'Alt. Health Influencers: how wellness culture and web culture have been weaponised to promote conspiracy theories and far-right extremism during the COVID-19 pandemic', European Journal of Cultural Studies 25:1, pp.3-24.

[53] ESRC Digital Good Network (2024) Examining the Role of Mobile Phones in People's Relationships with Themselves and with Others project webpage.

[54] Lenzen, M., M. Li, A. Malik, F. Pomponi, Y-Y. Sun, T. Wiedmann, et al. (2020). 'Global socio-economic losses and environmental gains from the Coronavirus pandemic', PLoS ONE 15(7).

[55] Williams, L., B. K. Sovacool & T. J. Foxon (2001) 'The energy use implications of 5G: Reviewing whole network operational energy, embodied energy, and indirect effects', Renewable and Sustainable Energy Reviews, 157.

[56] Brevini, B. (2021) Is AI Good for the Planet? (Cambridge, Polity Press).

[57] Frick, T. (2023) 'Sustainable Web Design', Mightybytes.

[58] Gomes, C. et al. (2019) 'Computational sustainability: computing for a better world and a sustainable future', Communications of the ACM 62(9).

shown to disproportionately affect marginalised communities who are less likely to benefit from these technologies, also have a negative environmental impact in the Global South, when large becomes too large.[59] Responding to this challenge, Digital Good Network College of Experts member Dorothea Kleine is co-author of a report which calls for a 'digital reset' - that is, 'a fundamental redirection of the purpose of digital technologies towards a deep sustainability transformation', for example through principles such as regenerative design and sufficiency.[60] Principles like these are one way of operationalising the good digital society.

Approaches to operationalising and evaluating the good

What does a good digital society look like? We argue that answering this question requires thinking about how we define the good digital society, exploring whether we can build consensus with regard to what we mean by good and imagining the digital society we cannot live without. Arriving at a good digital society is a challenge that transcends any one particular technology or domain of deployment. Bridging different conceptualisations of the digital good is simultaneously intractable yet essential for advancing the good digital society. We should resist the temptation of thinking that the good digital society is simple either to define or to achieve. A good digital society involves hashing out differences, disagreeing with each other, facing impasses, acknowledging that the pace of technical change means we are unlikely to arrive at a single, settled definition. But it is better, we contend, to foster these conversations, rather than oversimplify the challenge.

How do we get there? In the Digital Good Network, we will produce a Digital Good Index (DGI) to address this question. We envisage the DGI as a mechanism for evaluating digital innovations against characteristics of the digital good. We do not want to reduce the digital good to a simplistic checklist. Rather, we intend the DGI to reflect broadly on how the digital good might be measured and to centre the question of who gets to define whether digital technologies should be considered good, and good for whom. The DGI will build on Digital Good Network research, interviews and roundtable discussions, and on existing sources.

We are currently producing DGI 1.0 and in the process, identifying what it should be, do and look like, to make change happen. There is an overabundance of guidelines for the good, ethical, just, trustworthy development and deployment of digital technologies, sometimes resulting in confusion about which to use and how to implement them.[61] We do not wish to add to this overabundance and confusion. The DGI may take the form of a set of principles. Principles can be hard to implement, but they also play an important convening role.[62] Or, it could be a set of virtues or values in keeping with the philosophical origins of the term good with which we started this paper. Target users, optimum point of use and format - or how people use it - all matter. How to ensure the DGI has impact also needs attention.

Our work to date has led us to three propositions: listen to diverse users; consider context; take a principles-based approach. These are fundamental to a good digital society and as such, we offer them as recommendations for future directions of travel and as a conclusion to this discussion paper.

1. It is vital to listen to the views of diverse users, especially those most negatively impacted by digital developments or underrepresented in related decision-making. These views must then inform understanding of what a good digital society looks like and principles for evaluating whether digital technologies are good for societies. Doing this addresses the important questions of who gets to decide whether, how, when, where and for whom digital technologies are good, whose voices are heard, and whose voices are not. It prioritises questions of equity, which we argue above is central to a good digital society.

2. Contexts differ. We know that context is an important factor in shaping people's perceptions of digital technology deployments.[63] Given the range of definitions, technologies, deployments and domains that make up our digital society, a major challenge is to consider whether general values or principles for a good digital society can be abstracted from existing context-specific recommendations and guidelines. The process of abstraction may also alter the potential for recommendations and guidelines to lead to real-world change - this is a further challenge.

3. Despite the importance of context, it is likely that moving towards a good digital society will need a principles, values or virtues-based approach. This means producing a set of high-level standards or shared beliefs rather than relying on detailed, prescriptive rules. Whether we call them principles, values or virtues, we need to avoid simplistic 'techno-solutionism', or the idea that technologies can solve social problems. We know that this is far from true, and we should not forget the lessons learnt about the harms and negative consequences of digital technologies of all kinds. Bringing cross-sectoral and interdisciplinary viewpoints together to bridge gaps between theoretical debate and real-world change is also a necessary step to arrive at a set of principles for a good digital society.

59   Bender, E. M., T. Gebru, A. McMillan-Major & S. Shmitchell (2021) 'On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?', *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (FAccT '21), pp.610-623.

60   Digitalization for Sustainability (D4S) (2022) Digital Reset: redirecting technologies for the deep sustainability transformation.

61   Morley, J., L. Floridi, L. Kinsey & A. Elhahal, (2020) 'From what to how: an initial review of publicly available AI ethics tools, methods and research to tranlsate principles into practices', *Science and Engineering Ethics* 26(4), pp.2141-2168.

62   Seger, E. (2022) 'In defence of principlism in AI Ethics and Governance', *Philosophy and Technology*, 35(45).

63   Kennedy, H. M. Taylor, S. Oman, J. Bates, I. Medina-Perea, H. Ditchfield & L. Pinney (2001) Living With Data Survey Report.

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