



TASK FORCE 1 POLICY BRIEF



Saudi Arabia 2020

Global Values

Harnessing shared values to advance
(trans-)national goals

Editorial Board

Dimah Al-Sheikh

V20 Chair

Executive Manager of Knowledge and Character Building at Misk Foundation

Dr. Ghazi Binzagr

V20 Sherpa

Founder and Chair of Wisaal, VP of Abdullah & Saeed Binzagr Company.

Rudolph Lohmeyer

V20 Task Force Lead Global Values

Partner, Kearney | National Transformations Institute

Tor Eneroth

V20 Task Force Co-Lead Global Values

Director of Cultural Transformation, Barrett Values Centre

Dr. Manuel Schubert

V20 Behavioral Public Policy Advisor

Managing Director at Behavia, Adjunct Assistant Professor for Behavioral Economics



V20 Organizer
2020



BEHAVIA

V20 Knowledge Partner
2020

Disclaimer

The chapters in this policy brief were developed and written by the authors and have undergone review processes. The views and opinions expressed in the chapters are those of the authors and do not necessarily reflect the official position of the V20 Organizer or the Editorial Board.

1

Introduction

Values are part of the social capital of a nation. They play a pivotal role in shaping the decisions and behaviors of citizens and hence are a key determinant of social cohesion and the ability of a society to advance its socio-economic development inclusively. Thus, consideration of values is crucial for a wide range of public policies the success of which depends on citizens' behavior. Human-centered public policies incorporate this view and, for instance, take into account whether new institutional regulations are compatible with citizens' values. As the premier forum for international economic cooperation, the G20 has previously recognized the importance of human-centered approaches to solving challenges of a global scale, especially in the areas of wellbeing (G20, 2016), sustainable development (G20, 2018), and public health (G20, 2019) – implicitly

acknowledging the role of values in each of these areas and many others.

This policy brief aims at taking the discussion one step further by explicitly emphasizing the “value of values” and advocating for a general paradigm shift in how conscious values are viewed and integrated into policy. This brief provides evidence regarding how values have proven to be instrumental for economic cooperation and social development and can contribute to achieving the goals of the G20.

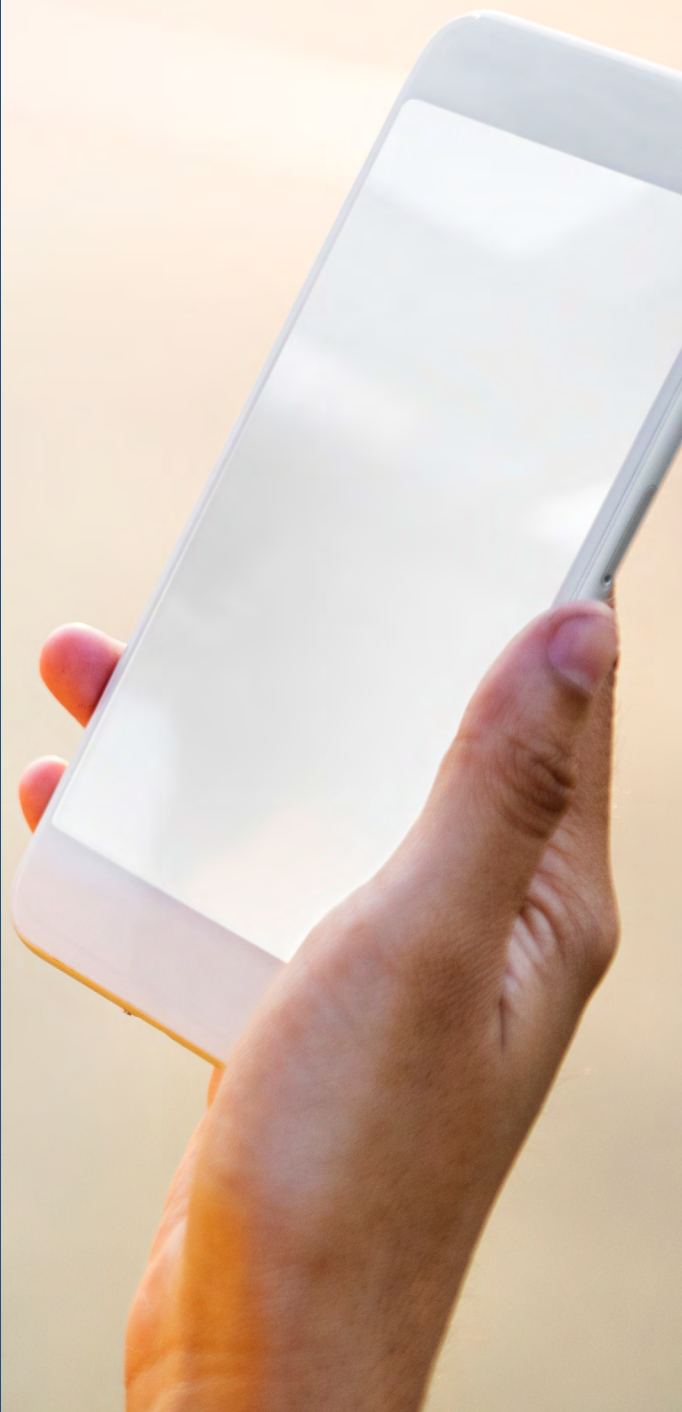
In light of the ongoing global crisis caused by COVID-19, our policy brief also contains recommendations for the G20 regarding how to leverage values to mitigate emerging challenges to economic cooperation and social development.

References

- G20. 2016. G20 Leaders' Communiqué: Hangzhou Summit.
- G20. 2018. G20 Leaders' Declaration. Building consensus for fair and sustainable development. Buenos Aires.
- G20. 2019. G20 Osaka Leaders' Declaration. Osaka.

2 Shared Truth

Authors: Dr. Manuel Schubert, Dr. Maha Bashri, Dr. Cyril Jayet, Eric Vautrin, Dr. Julia Stauf



Cohesive societies require citizens who are well-equipped to navigate the increasingly complex and contested global information deluge. Policies to improve information agency can only be realized if governments invest in media education programs and citizens seek lifelong media education opportunities, acquire new skills, and adapt existing ones to the rapid technological changes.

Under the Saudi Presidency tutelage, the G20 countries have resolved to empower individuals and create the conditions in which “all people can live, work and thrive” (G20, 2020). This objective builds on the concept of social cohesion. Social cohesion increases the well-being of all members in society and creates a sense of identity, belonging and mutual respect through inclusion (OECD, 2012). While the current phase of global growth has lifted millions of individuals out of poverty, inequalities in many societies have significantly widened. Although we recognize the G20’s efforts in enhancing global cooperation to jointly address the alarming trends of increasing inequality and marginalization, we feel the need to highlight another potentially critical threat to future cohesion in our societies. We argue that a common notion of truth is integral to building and nurturing social cohesion, especially in an ever-changing and increasingly interconnected world, and that it is at risk in many parts of the world.

With approximately 4.8 billion Internet users globally (Internet World Stats, 2020), the media’s impact on individuals and society as a whole continues to evolve with the rapid and ongoing changes in media technologies. In such a networked global environment where there is a deluge of information, the ability to seek knowledge and truth are central to cohesive societies. Consequently, people must have relevant skills and the ability to transfer existing knowledge to new technological and social situations (Stix and Jolls, 2020). While empirical evidence points to the great economic and social benefits for a large portion of the world’s population by virtue of advancements in media technologies, we, at the V20, are concerned about the observed global disruptions and turmoil caused by mis/disinformation in contemporary societies.

Mis/disinformation is contributing to political polarization in many parts of the world and thus hampering the establishment of a shared truth, i.e. a common view favoring shared global perspectives on the most urgent political problems and in turn aiding in crafting solutions that would be acceptable to everyone. To date, the G20 and other countries have individually addressed this challenge through regulatory means and/or the self-regulation of social media platform providers.

We are skeptical about the effectiveness of these interventions, primarily because communication dynamics have evolved rapidly and in unprecedented ways. Audiences are now both consumers and producers of media content rather than mere receivers of information. Consequently, we suggest designing public policy interventions that consider both the underlying psychological and media educational factors.

Cognitive psychology has shown the importance of heuristics and biases as psychological mechanisms that impel people to make simple but systematic mistakes ranging from mere statistical mistakes to more subtle logical errors. A well-documented example for such an error is the illusory truth effect where repeated exposure to a false statement tends to increase the sense that it is true, irrespective of the source's credibility (Dechêne, Stahl, Hansen and Waenke, 2010; Fazio, Brashier, Payne and Marsh, 2015). The illusory truth effect as well as other phenomena, such as cognitive dissonance, selective exposure to information sources, or negativity bias, lead to increased intolerance of the "other" and tend to reinforce political polarization as they are often directed toward the reinforcement of one's existing beliefs (Stanig, 2013).

EMPIRICAL INSIGHTS: ILLUSORY TRUTH EFFECT

Research has repeatedly shown that people fall victim to the illusory truth effect, i.e. tend to believe that a statement is true after being exposed to it multiple times. This effect can occur despite one's prior knowledge that a statement is false. Using statements that contradict well-known facts, Lisa Fazio and her colleagues found, for example, that:

“[I]llusory truth effects occurred even when participants knew better. [...] Thus, participants demonstrated knowledge neglect, or the failure to rely on stored knowledge” in the face of repeated exposure to false statements.

Fazio et al. (2015, p. 993)

A critical factor that aids in establishing a shared notion of truth is understanding the important role played by information and the media in modern day society - what Krotz (2009) called mediatization. Media literacy education stresses the importance of equipping citizens with adequate skills. The core competency across the diverse media literacy models is the critical ability to assess and evaluate information both as a consumer and as a producer (see, e.g., Bennett, Maton and Kervin, 2008; Jolls and Wilson, 2014; Kellner and Share, 2005; Masterman, 1989). Several researchers have argued that some virtues are essential for the development of media literacy such as intellectual honesty or epistemic humility. Pigliucci (2020), for instance, proposes a simple checklist on how to react to possible mis/disinformation:

- (i) Did I carefully consider the other person's arguments without dismissing them out of hand?
- (ii) Did I interpret what the other person said in the most charitable way possible before mounting a response?
- (iii) Did I seriously entertain the possibility that I may be wrong? Or am I too blinded by my own preconceptions?
- (iv) Am I an expert on this matter? If not, did I consult experts, or did I just conjure my own unfounded opinion?
- (v) Did I check the reliability of my own sources, or just Google

whatever was convenient to throw at my interlocutor?

(vi) After having done my research, do I actually know what I'm talking about, or am I simply repeating someone else's opinion without really understanding it?

This checklist is based on virtue epistemology which argues that individuals must take a personal responsibility in acquiring knowledge and establishing truth. Virtue ethics emphasizes virtues or moral character. According to Pigliucci's proposition, individuals have a moral duty not to spread misinformation that might potentially harm others.

Moreover, there have been preliminary efforts aimed at improving people's information and decision agency when they are exposed to incorrect information (Lorenz-Spreen, Lewandowsky, Sunstein and Hertwig, 2020; Pennycook, McPhetres, Zhang and Rand 2020; Bago, Rand, and Pennycook 2020). These efforts are (mainly) based on an immunization approach, i.e. one where people are educated on the traps and fallacies of mis/disinformation. While the initial results look promising, it is too early to draw firm conclusions on what works to immunize people against the spread of mis/disinformation.



EMPIRICAL INSIGHT: IMMUNIZATION

Over the last months, a series of new studies published investigate effective ways to immunize people against the illusory truth effect. For example:

Simply asking readers of social media posts to rate the accuracy of headlines significantly increased their competence to discern real news from fake news.

Pennycook et al (2020)

Policy Recommendations

We propose that the G20 countries explore policy options that help better equip societies to fight mis/disinformation. Education (formal and beyond) should place special emphasis on news literacy education as a self-help measure (Newman, Fletcher, Kalogeropoulos, and Nielsen, 2019). In addition, the G20 and respective Working Groups should **establish adequate diagnosis tools and exchange existing knowledge on the factors that help foster citizens' competences in dealing with information in a self-aware, reflective, and conscious manner.**

In this regard, we advocate to examining the innovative policies aimed at empowering individuals, both as content producers and users, to make (more) informed and autonomous decisions. In pursuing this goal, the G20 should take inspiration from the growing behavioral research in this field. Lorenz-Spreen et al. 2020, for example, propose the following low-cost interventions:

- **Content producers should actively vet and disclose the sources for the information shared on social media platforms;** for example, by highlighting a content's source, contextualizing the number of likes ('4,287 of 1.5 million readers liked this article'), making the act of sharing low-quality news more effortful, or by revealing how news feeds sort content. This encourages content users to fact check information they are exposed to.
- **Content users should be supported by adequate information ecologies in which high rather than low quality sources are easily accessible to them;** for example, by allowing users to customize their news feeds, displaying the full history of a post (incl. its original source, friends and public users who disseminated it), prompting users to scrutinize quality cues, or informing users about the target group of an advertisement.

REFERENCES

- Bago, B., Rand, D. G., and Pennycook, G. (2020). Fake news, fast and slow: Deliberation reduces belief in false (but not true) news headlines. *Journal of Experimental Psychology: General*, 149(8), 1608–1613.
- Bennett, S., Maton, K., and Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), 775-786.
- Dechêne, A., Stahl, C., Hansen, J., and Wänke, M. (2010). The truth about the truth: A meta analytic review of the truth effect. *Personality and Social Psychology Review*, 14(2), 238-257.
- Fazio, L. K., Brashier, N. M., Payne, B. K., and Marsh, E. J. (2015). Knowledge does not protect against illusory truth. *Journal of Experimental Psychology: General*, 144(5), 993.
- G20 (2020). Overview of Saudi Arabia's 2020 G20 Presidency. Riyadh.
- Internet World Stats (2020). Internet users in the world.
- Jolls, T., and Wilson, C. (2014). The core concepts: Fundamental to media literacy yesterday, today and tomorrow. *Journal of Media Literacy Education*, 6(2), 68-78.
- Kellner, D., and Share, J. (2005). Toward critical media literacy: Core concepts, debates, organizations, and policy. *Discourse: Studies in the Cultural Politics of Education*, 26(3), 369-386.
- Krotz, F. (2009). Mediatization: A concept with which to grasp media and societal change. In Lundby, K. (Ed.). *Mediatization: Concept, changes, consequences* (pp. 21-40). New York, NY: Peter Lang.
- Lorenz-Spreen, P., Lewandowsky, S., Sunstein, C. R., and Hertwig, R. (2020). How behavioural sciences can promote truth, autonomy and democratic discourse online. *Nature Human Behaviour*, 1-8.
- Masterman, L. (1989). Media awareness education: Eighteen basic principles. Center for Media Literacy.
- Newman, N., Fletcher, R., Kalogeropoulos, A., and Nielsen, R. (2019). Reuters Institute digital news report 2019, Reuters Institute for the Study of Journalism.
- OECD (2012). Perspectives on Global Development 2012. Social cohesion in a shifting world. OECD Development Centre.
- Pennycook, G., McPhetres, J., Zhang, Y., and Rand, D. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy nudge intervention. *Psychological Science*.
- Pigliucci, M. (2020). The perils of knowledge in a pandemic. *IAI News* 87.
- Stanig, P. (2013). Political polarization in retrospective economic evaluations during recessions and recoveries. *Electoral Studies*, 32(4), 729-745.
- Stix, D. C., and Jolls, T. (2020). Promoting media literacy learning-a comparison of various media literacy models. *Media Education*, 11(1), 15-23.

3 Mutual Trust

Authors: Dr. Manuel Schubert, Dr. Julia Stauf, Prof. Dr. Cyril Jayet, Eric Vautrin, Dr. Dania Khatib



Mutual trust enables cooperation in virtually all domains of human interaction and positively affects social cohesion and market efficiency. As public policies shape the environments in which mutual trust is built, we call on the G20 to develop a global warning system to identify emerging gaps in trust and to invest in early childhood education programs focused on building confidence and trust.

The G20's primary objective is to join forces to address major global challenges, work together to boost cooperation on global economic growth and contribute to social development and higher wellbeing of the world (G20, 2016; G20, 2019). As V20, we acknowledge the purpose of G20 to facilitate economic cooperation and welcome their continuous efforts to strive for both - better economic and social outcomes. To achieve these ends, a solid foundation on supporting values will be vital.

Interpersonal trust, i.e. trust between people, is undoubtedly one of the most important factors to achieve these goals. Trust enables cooperation in virtually all domains of human interaction. It lowers the transaction costs in social, economic and political relationships that involve risk or uncertainty. Global markets require high levels of trust in order to facilitate cooperation between unknown parties, exchanging goods and services under complete anonymity. If

market actors interact in a trustworthy way, trust becomes a dominant norm in markets, leveraging substantial efficiency gains (Henrich, 2016). Empirical evidence strongly corroborates these arguments, demonstrating the relevance of trust for economic cooperation. Zak and Knack (2001), for example, show that interpersonal trust is a significant driver of global GDP growth.

EMPIRICAL INSIGHTS: TRUST AND GROWTH

Trust and its economic implications have been extensively examined over the last 50 years. In one of the most prominent studies, the economists Paul Zak and Stephen Knack analyze data from the World Value Survey on trust collected from 41 countries. Controlling for a variety of factors, the authors find that:

A country's annual growth rate "rises by nearly 1 percentage point on average for each 15 percentage point increase in trust."

Zak and Knack (2001: 307-309)

However, with the ongoing COVID-19 pandemic, interpersonal trust appears to be at risk. For instance, recent survey data suggests that consumers have lost confidence in foreign products and services (McKinsey, 2020). About a third of the global consumers now worry that foreign products could pose a safety risk with one in four believing that companies should bring production back to their own country (Kantar, 2020). Especially products from China and the U.S. are increasingly met with reservation.

These trends are hardly desirable from a consumer's perspective. Cross-border trade leads to lower prices, allows consumers to enjoy a huge variety of foreign goods, fosters learning across boundaries and hinders the exploitation by local monopolies (OECD, 2020). Declining trust would effectively place a tax on foreign goods, resulting in higher prices for domestic products, less effective competition and reduced quality and variety of goods. In the long run, it would affect the existing market structures and undermine the international trade system – a system which took decades to build and is key for creating consumer rents through global competition. Consumers International, the umbrella organization for consumer groups around the world, has therefore called on the G20 to focus on the protection and empowerment of individuals in the marketplace (Consumers International, 2020) – a call which we support.

Moreover, the importance of trust is not only limited to economic cooperation. It is the lubricant of any social system: people trust the mechanic to fix the car brakes, or the epidemiologists to give the right advice on how to deal with COVID-19. On a country level, evidence suggests that trust contributes to increased levels of solidarity and social cohesion: interpersonal trust makes people more inclined to support a welfare-state, more supportive to decent levels of taxation, more engaged with fellow citizens and more likely to adhere to government recommendations (Alesina and La Ferrara, 2000; Tsai et al 2015; Algan et al, 2016).

Considering the interaction of government institutions and citizens, trust has also a direct influence on the effectiveness of public policies. Public trust, i.e. the extent to which citizens trust government institutions, has been identified as one of the most important foundations upon which the legitimacy of government systems is built (OECD, 2013). It affects the ability to govern effectively and sustainably. Public trust is found to increase compliance with regulations and tax systems and raise the confidence of investors and consumers (OECD, 2017).

Similar to interpersonal trust, public trust appears to be quite volatile and vulnerable during crises. Although the Edelman Trust Barometer reported an all-time high of public trust in April 2020, the general trend suggests that trust in governments

has continuously declined since the 2008 financial crisis (OECD, 2017; Edelman, 2020). The recent gains in public trust may thus be an indication of a mere trust bubble which can quickly burst without concerted government action.

Governments around the globe now have the task to formulate adequate policy responses to the crisis on various levels. Yet, considering the first signs of behavioral fatigue and protest in many Western countries, we are concerned that the current G20's efforts will not be enough to sustain levels of interpersonal and public trust that are sufficient to facilitate economic and societal cooperation in the future.

Besides the deterioration of interpersonal and consumer trust, we are especially concerned about the potential long-term impact of COVID-19 on public trust. A recent study indicates that exposure to a pandemic at a young age (ages 18-25) can lead to a persistent erosion of trust in governments for the rest of one's life (Aksoy et al, 2020). Governments should also take into account that trust building efforts should not be limited to crisis communication only, but expanded to other areas, such as social, fiscal, and economic policy, all of which are key areas for societal progress and development.

EMPIRICAL INSIGHTS: PUBLIC TRUST AND COVID-19

“What will be the political legacy of the Coronavirus pandemic?” A first answer to this question was recently provided by a group of researchers who analyzed data from the Gallup World Poll covering 140 countries. Assessing the impact of epidemic exposures on trust using historical data from 2008-2016, the authors find that epidemics lead to a persistent deterioration of trust in public institutions among adolescents. The authors conclude that:

“[T]he Coronavirus may leave behind a long-lasting political scar on the current young generation”

Aksoy et al (2020: 2)

To stimulate higher levels of trust, governments should utilize the large body of research which has assessed the determinants of public and interpersonal trust. For example, the OECD (2017: 11-12) views the key drivers of public trust along two dimensions:

1. Competence: responsiveness and reliability in delivering public services
2. Values: integrity, openness, fairness, and consistency in dealing with citizens' concerns and requests (see also V20 Policy Brief on "Leadership Values").

Trust can also be promoted by education. For instance, horizontal teaching practices that emphasize cooperation, push students to work in groups and ask teachers questions have been found to effectively build trust among students (Algan et al, 2013). Research has also shown that early education programs at age 7 can increase trust and more generally have strong positive consequences in early adulthood in terms of criminality, education, employment and social capital (e.g., Algan et al, 2012).

Lastly, within informal networks trust is ingrained and developed by the very nature of how people come together, in ways that are very difficult to achieve in formal structures including those of (trans-)national governments and their citizenry. Voluntary participation in groups, activities, or initiatives in which

individuals have personal interest, coupled with the knowledge that they are free to come and go, establishes a significant level of interpersonal trust from the outset (Song et al., 2019).

Policy Recommendations

We call on the G20 countries, irrespective of their political systems and current leaderships, to unify and coordinate their efforts in securing interpersonal and public trust and citizen support for the sake of global stability, societal peace and prosperity.

We recommend taking immediate action and prevent a further deterioration of trust. **Joint action should focus on ring-fencing distrust towards foreign goods by informing citizens about actual risks and safety standards** which can influence the evaluation of product risks and tackle general outgroup aversion.

We further recommend **developing a global warning** system based on the OECD's guidelines on measuring trust to identify gaps as well as critical trends at an early stage. Particularly, the **G20 countries should support the OECD in continuing and expanding the exchange of best practice** and developing interventions that effectively restore trust both in the private and the public sector. Government efforts should be undertaken to **realign policies, raise public awareness and make future commitments to maintain trust and promote cohesiveness**. Long-term interventions should focus on developing teaching practices and education programs that build confidence and trust in early childhood. In addition, promoting and facilitating informal networks both between governments, and between governments and their citizens, should continue to be a priority and expanded where possible.

REFERENCES

- Aksoy, C. G., Eichengreen, B., and Saka, O. (2020). The political scar of epidemics [No. 13351]. Institute of Labor Economics (IZA).
- Alesina, A., and La Ferrara, E. (2000). Participation in heterogeneous communities. *The quarterly journal of economics*, 115(3), 847-904.
- Algan, Y., Cahuc, P., and Sangnier, M. (2016). Trust and the welfare state: The twin peaks curve. *The Economic Journal*, 126(593), 861-883.
- Algan, Y., Beasley, E., Tremblay, R. E., and Vitaro, F. (2012). The long-term impact of social skills training at school entry: A randomized controlled trial. *Sciences Po Working Paper*.
- Algan, Y., Cahuc, P., and Shleifer, A. (2013). Teaching practices and social capital. *American Economic Journal: Applied Economics*, 5(3), 189-210.
- Merola, R., and Greenhalgh, L. (2017). Exploring the loyalty penalty in the broadband market.
- Consumers International (2020). Consumer protection and consumer advocacy during the pandemic. <https://www.consumersinternational.org/what-we-do/covid-19/> (last accessed 02/08/2020).
- Barometer, E. T. (2020). Spring update: Trust and the COVID-19 pandemic.
- European Commission (2019). Connectivity. Broadband market development in the EU. *Digital Economy and Society Index Report 2019. Connectivity*.
- G20 (2016). G20 Leaders' Communiqué: Hangzhou Summit.
- G20 (2019). G20 Osaka Leaders' Declaration. Osaka.
- G20 (2020). Overview of Saudi Arabia's 2020 G20 Presidency. Riyadh.
- Henrich, J. (2016). Do markets make us fair, trusting, and cooperative, or bring out the worst in us? <https://economics.com/do-markets-make-us-fair-trusting-joseph-henrich/> (last accessed 22/09/2020).
- Kantar (2020). COVID-19 barometer.
- McKinsey (2020). Consumer sentiment and behavior continue to reflect the uncertainty of the COVID-19 crisis. <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19> (last accessed 05/08/2020).
- OECD (2013). *Government at a glance*.
- OECD (2017). *Trust and public policy. How better governance can help rebuild public trust*.
- OECD (2020). *COVID-19 and international trade: Issues and actions*.
- Song, A. M., Temby, O., Kim, D., Cisneros, A. S., and Hickey, G. M. (2019). Measuring, mapping and quantifying the effects of trust and informal communication on transboundary collaboration in the Great Lakes fisheries policy network. *Global Environmental Change*, 54, 6-18.
- Tsai, L., Blair, R., and Morse, B. (2015). Patterns of trust and compliance in the fight against Ebola: Results from a population-based survey of Monrovia, Liberia. *Economic Impacts of Ebola Bulletin Three*.
- Zak, P. J., and Knack, S. (2001). Trust and growth. *The economic journal*, 111(470), 295-321.

4 Global Responsibility

Authors: Dr. Manuel Schubert, Ms. Najla Alariefy, Dr. Julia Stauf, Ms. Olina Parrish, Ms. Aisha Fallatah, Dr. Dania Khatib



When tackling global issues where the individual plays an active role, it is important to consider global responsibility — an individual's sense of accountability for the consequences of their actions beyond themselves — as an untapped driver. To activate this driver, policies need to mobilize personal valuations and social norms through education and communication channels towards discouraging irresponsible behaviors and dignifying individual accountability.

“Safeguarding the Planet” is one of the most pressing global issues and one of the three main themes under the Saudi G20 Presidency in 2020. Climate change mitigation, promoting sustainable consumption, and increasing urban environmental quality have also been recognized as top priorities in previous G20 Leaders’ Declarations (G20, 2019; G20, 2018; G20, 2017). In a time when depletable resources are reaching their natural limits, the active and intentional care of global public goods is of utmost concern. We therefore welcome the G20’s efforts and appreciate their initiatives to find innovative solutions to safeguard planet earth. However, we also deem it important to point to a missing link in addressing these global challenges.

Market transactions often create negative externalities, such as environmental pollution, child labor, or the global decline of antibiotic resistance. People contribute to the formation of these global externalities by consuming goods that inflict harm on others. To mitigate these effects and steer global consumption and behavior in a collectively optimal way, the policy architecture of the G20 focuses to a large extent on multilateral, fiscal, and infrastructural interventions. Unfortunately, these policy options only affect parts of the decision environment in which individual behaviors occur. In our view, citizens’ motivations should be more consistently targeted, nurtured, and integrated in the G20’s efforts to safeguard our planet.

The key challenge is that perceived responsibility, i.e. the acknowledgement of the causal effects of one’s actions beyond oneself, often diffuses when it comes to global public goods, “such that no one individual steps forward to provide stewardship” (Peck et al, 2020). Evidence suggests, for example, that people feel less responsible for negative externalities when they act in groups (e.g., Fischer et al, 2011), when they feel socially distanced from third parties (e.g., Charness and Gneezy, 2008), when they interact through intermediaries, including AI applications

(e.g., Hamman et al, 2010; Council of Europe, 2019), or when they observe that others exhibit harmful behaviors (e.g., Falk and Szech, 2013). The combination of confirmation bias, which is the inclination to seek information that confirms one's beliefs (Nickerson, 1998), and the diffusion of responsibility creates a self-perpetuating negative cycle where people feel less accountable for the negative externalities arising from their choices.

Values-based approaches offer a promising avenue for public policy to activate global responsibility and can complement traditional regulation. The key is to give the citizens a sense of ownership. People who have internalized the implications of their actions and the full range of consequences are more likely to share responsibility and engage less often in harmful behavior (Irwin, 1994; Lee et al. 2016). Viscusi et al (2011), for example, show that high levels of perceived responsibility toward environmental outcomes are almost as powerful as traditional, incentivized regulation.

EMPIRICAL INSIGHTS: REGULATION VS. RESPONSIBILITY IN RECYCLING

Kip Viscusi and colleagues assess the impact of regulatory interventions against internalized responsibility for environmental outcomes. Using the data of a 2009 US household survey on bottle recycling, the authors compare behavioral change as a result of economic disincentives, i.e. imposed deposits of 5 cents per bottle, with behavioral change driven by personal motivations. The authors find that:

Pro-environmental motivations are almost as powerful as traditional regulation in steering sustainable behavior, making up to 75% of its total effect.

Viscusi et al. (2011)

Values-based education as well as situation-specific interventions targeting ownership and social norms are promising policy means to effectively stimulate global responsibility. While education aims at mobilizing sustainable and long-term behavioral change, the latter options are relevant for short-term and rather case-specific interventions. An insightful example for an ownership intervention has recently been provided by Peck et al (2020). The authors show that basic changes to the situational environment, such as giving a nickname to a lake or reading a “welcome to YOUR Park” sign, can induce stronger feelings of responsibility and stimulate stewardship behaviors (Peck et al, 2020: 11).

Social norms, the second avenue, relate to the informal rules of a society about what is socially acceptable or desirable and what is not. While these norms widely differ across societies, the underlying motivation, i.e. the desire to fit in, appears to be a constant of human behavior around the globe. People adhere to social norms to be accepted and respected as members of the society. Collective contempt is the punishment for a violation of a social norm. Especially when actions are on public display, people have little desire to deviate from socially acceptable

behavior and risk informal sanctions. A common practice to activate compliance with social norms is hence to provide feedback about the behavior of peer groups (e.g., Schultz et al, 2007; Brandon et al, 2019). These interventions are quite effective in mobilizing targeted pro-environmental behavior. but require careful monitoring of possible adverse effects.

EMPIRICAL INSIGHTS: SOCIAL NORMS AND ELECTRICITY CONSUMPTION

In a recent study, a group of leading behavioral scientists examined electricity consumption patterns of 42,000 households in the US. The households were split into different groups. One group received feedback on social norms, i.e. information on their electricity consumption in comparison to the consumption of other households during peak load events. The authors find that:

The receipt of social feedback leads to “a 3.8% reduction in electricity consumption during a peak load event”

Brandon et al. (2019: 5293)

Although our examples above referred to environmental outcomes, global responsibility also plays a role in many other areas. Slowing the spread of COVID-19, for instance, requires responsible action - everyone needs to change their behavior to not only protect themselves, but also to prevent harm from others. Unfortunately, the rising numbers of those who refuse to wear masks and do not respect social distancing in some countries reveal that protective behavior has not yet been able to be fully internalized or, at least, has not yet been established as a social norm in some societies. As Cass Sunstein points out, a key reason for this is that these precautions conflict with people's sense of identity (Sunstein, 2020), another component of people's values systems.

If people consider themselves part of a group that rejects political interference in their personal lives and takes pride in being not deferred by risks, they will be hesitant to engage in socially responsible practices. Sunstein concludes that appeals to adopt protective behaviors should address the group members' pride. A famous example for this type of appeal is the anti-littering campaign "Don't Mess with Texas" that capitalizes on Texans' sense of state pride and implies that littering is an affront to the

community. This campaign was credited with reducing litter in Texas by 72 percent (McClure and Spence, 2006).


In the absence of vaccination and effective treatments, measures that induce behavioral changes are the only means to contain the pandemic. Latest policy interventions of health authorities therefore often apply a policy mix, combining different forms of regulation, educational interventions and persuasive appeals which relate to social norms, ownership perception and/or people's group identity. While the results of these endeavors are not yet available on a large scale, we as V20 are determined to continue bringing best practice on ways to mobilize global responsibility to the attention of the G20, especially on effective means to contain the pandemic and safeguard our planet,.

Practical Recommendations

We highly welcome the continuous efforts of the G20 to safeguard our planet. However, we believe that collective action should not only encompass the global coordination on infrastructural and regulatory measures. In our view, it requires more tailored efforts to dissolve the divide between humans and nature and invoke collective responsibility.

We therefore call on the G20 to align on effective measures to increase the people's sense of responsibility toward global public goods by utilizing the extensive research and insights to counter the diffusion of perceived responsibility among citizens. Specifically, we recommend the following:

1. The G20, in particular the G20 Environment Deputies Working Group (EDWG), should adopt a new priority area, addressing the perceived responsibility of both consumers and producers as major contributors to negative externalities. As part of this effort, the EDWG should review the impact of national policies to stimulate higher levels of responsibility in the areas of energy consumption and marine plastic litter. The results of this assessment should be made available to national governments to guide their environmental policies on how to effectively mobilize perceived responsibility.
2. In addition, the G20 should invite the national environmental protection agencies to partake in a Global Responsibility Lab (GRL), potentially led by the OECD. The GRL should devise, test, and assess the impact of cross-country policy interventions by applying a standardized methodology that guarantees



reliability and generalizability of the results. Depending on the member states' priorities, interventions could test short-term stimuli (e.g., by activating ownership or social norms) or long-term stimuli (e.g., by promoting pro-environmental valuations through education) as well as their possible interactions with financial (dis-)incentives such as national tax systems.

REFERENCES

- Charness, G., and Gneezy, U. (2008). What's in a name? Anonymity and social distance in dictator and ultimatum games. *Journal of Economic Behavior and Organization*, 68(1), 29-35.
- Yeung, K. (2018). A study of the implications of advanced digital technologies (including AI systems) for the concept of responsibility within a human rights framework. MSI-AUT, 5.
- Falk, A., and Szech, N. (2013). Morals and markets. *Science*, 340(6133), 707-711.
- Fischer, P., Krueger, J. I., Greitemeyer, T., Vogrincic, C., Kastenmüller, A., Frey, D., and Kainbacher, M. (2011). The bystander-effect: a meta-analytic review on bystander intervention in dangerous and non-dangerous emergencies. *Psychological Bulletin*, 137(4), 517.
- G20 (2017). G20 Leaders' Declaration. Shaping an interconnected world. Hamburg.
- G20 (2018). G20 Leaders' Declaration. Building consensus for fair and sustainable development. Buenos Aires.
- G20 (2019). G20 Osaka Leaders' Declaration. Osaka.
- G20 (2020). Overview of Saudi Arabia's 2020 G20 Presidency. Riyadh.
- Hamman, J. R., Loewenstein, G., and Weber, R. A. (2010). Self-interest through delegation: An additional rationale for the principal-agent relationship. *American Economic Review*, 100(4), 1826-46.
- Irwin, J. R. (1994). Buying/selling price preference reversals: Preference for environmental changes in buying versus selling modes. *Organizational Behavior and Human Decision Processes*, 60(3), 431-457.
- Lee, C. Y., Hochman, G., Prince, S. E., and Ariely, D. (2016). Past actions as self-signals: How acting in a self-interested way influences environmental decision making. *PLOS ONE*, 11(7), e0158456.
- McClure, T., and Spence, R. (2006). Don't Mess with Texas: The story behind the legend. Austin, TX: Idea City Press.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of general psychology*, 2(2), 175-220.
- Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., and Giskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, 18(5), 429-434.
- Sunstein, C. (2020). Questions for Cass Sunstein: Can we "nudge" to a better pandemic policy?. <https://www.washingtonian.com/2020/07/13/questions-for-cass-sunstein-can-we-nudge-to-a-better-pandemic-policy/> (last accessed 10/08/2020).
- Viscusi, W. K., Huber, J., and Bell, J. (2011). Promoting recycling: Private values, social norms, and economic incentives. *American Economic Review*, 101(3), 65-70.

5

Human Empowerment

Authors: Prof. Ronald Fischer,
Eric Vautrin, Naif Alayed,
Hussam Al Harbi, Dr. Basmah
Maziad Altuwaijri



Human empowerment carefully balances personal autonomy and national sovereignty with the interdependent connectedness of individuals, communities and nations to enable societal transformation through innovation, peace and sustainable growth. In designing policy, leaders can harness the power of human empowerment by respecting the autonomy and diversity of citizens at the national level and the sovereignty of member states at the multilateral level, promoting the inclusion of women, youth and minorities, and simultaneously strengthening bridges of connectedness between citizens and countries through dialogue and inclusive policies.

Human empowerment is at the heart of the Saudi Presidency agenda for the 2020 G20 meeting as it is one of the three aims of their collective roadmap, “empowering people by unleashing opportunities for all” (G20, 2020). As stated: “The G20 will aim to create the conditions in which all people can live, work and thrive.” We at V20 fully support this aim and believe that Human Empowerment should be integral to policy design and execution in all areas.

The value of Human Empowerment depends on carefully balancing values of autonomy and sovereignty with values emphasizing interdependent connectedness of individuals, communities and nations. The balanced pursuit of these global values

enables societal transformation through innovation, peace and sustainable growth. By crafting (trans-)national policies which empower individuals and communities, the G20 will be building an engaged citizenry and setting the foundation for positive development of all individuals and communities.

Global human empowerment values of autonomy and relatedness are strongly correlated with more political stability and participation; economic freedom and reduced levels of corruption; greater innovations and personal growth; greater wellbeing and safe communities (Fischer, 2013). Both values form the universal core of intrinsic motivation (Ryan and Deci, 2000), an insight that has transformed business practice globally and explains why these two values are ranked most important in virtually all contemporary societies (Fischer and Schwartz, 2011; Schwartz and Bardi, 2001).



EMPIRICAL INSIGHTS

The value of independence among women is crucial for healthy children. A study by Ewerling, Lynch, Victora, van Eerdewijk, Tyszler and Barros (2017) constructed a gender empowerment index for African women and found that greater social independence had a protective effect on malnourishment and delayed development of children in 25 African countries. They also found that greater independence allowed women to make decisions about finances, which meant that more money was spent on their children. Thus, more empowered women would also be more likely to provide their children with appropriate care and nutrition, improving their chances to survive and properly develop.

This effect generalizes to a host of societal outcomes. Data from 27 countries shows that lack of autonomy is associated with greater risk of violent conflicts, lower gender equality, lower political participation and absence of social progress (Kunst et al, 2017).

Providing financial and educational security to individuals and communities is the single most important pathway for activating these values, which provide the foundation for individuals to feel securely connected with their families and communities, while providing the motivation and incentive to pursue independent ambitions, engage in innovation and entrepreneurial activities that transform societies. These patterns are robust and scale from individuals to communities to nations.

EMPIRICAL INSIGHTS

Economic opportunities are crucial for activating the joint values of autonomy and relatedness. Data from representative samples from all continents has demonstrated that raising economic and educational opportunities increase levels of the empowerment values autonomy and relatedness (Welzel, 2013).

Once activated, these values can be transformed into action when supported through sound economic and educational policies. Data from

17 countries has shown that in communities with greater access to meaningful employment, stable social institutions and appropriate educational institutions, higher empowerment values are nearly perfectly translated into action; whereas increased resource threat (absence of meaningful employment, unstable social institutions, lack of educational opportunities) reduces the ability of individuals to act on their values close to zero (Fischer and Boer, 2016).

The pursuit of the empowerment values autonomy and relatedness are crucial for containing and controlling the current COVID-19 pandemic as well as future pandemics that are increasingly likely to happen in a hyperconnected social world. We need innovation and creativity for designing novel vaccines and drugs to prevent future pandemics and increase the efficiency of public health campaigns. Simultaneously, most public health problems rely on sustained and coordinated behavioral actions, which require both autonomy and connectedness to activate social norms that maintain healthy social behaviors and provide support for vulnerable communities.

Disease stress (such as that caused by COVID-19) undermines the ability of individuals and communities to freely express their values and transform values into meaningful action. Data from 31 countries demonstrated that greater presence of infectious diseases decreases the ability of individuals to transform their personal values into meaningful action (Boer and Fischer, 2013). Individuals become more risk averse and are less likely to act on their values. These effects are compounded with the grave economic consequences of pandemics. As the global economy reels from the fallout of COVID-19, millions of people are losing access to employment and the economic impacts are likely to affect populations well past the current COVID-19 pandemic.

This shows the double-impact of global pandemics such as COVID-19: we need empowering values to combat the negative effects of global disease and contain viruses, but simultaneously, pandemics negatively affect empowerment values.

Policy Recommendations

The global value of human empowerment can be activated and nurtured through a set of policies. These policies should enhance financial security of individuals and communities, decrease economic inequality within communities, enable more equal participation and inclusion of all members, including youth, women, and minorities, and increase opportunities and access for education for the next generation. Simultaneously, they should strengthen points of connection through dialogue and inclusive policies.

REFERENCES

- Boer, D., and Fischer, R. (2013). How and when do personal values guide our attitudes and sociality? Explaining cross-cultural variability in attitude–value linkages. *Psychological Bulletin*, 139(5), 1113.
- Crayne, M. P. (2020). The traumatic impact of job loss and job search in the aftermath of COVID-19. *Psychological Trauma: Theory, Research, Practice and Policy*.
- Ewerling, F., Lynch, J. W., Victora, C. G., van Eerdewijk, A., Tyszler, M., and Barros, A. J. (2017). The SWPER index for women's empowerment in Africa: Development and validation of an index based on survey data. *The Lancet Global Health*, 5(9), e916-e923.
- Fischer, R. (2013). What values can (and cannot) tell us about individuals, society, and culture. *Advances in Culture and Psychology*, 4, 218-272.
- Fischer, R., and Boer, D. (2016). Values: The dynamic nexus between biology, ecology and culture. *Current Opinion in Psychology*, 8, 155-160.
- G20 (2020). Overview of Saudi Arabia's 2020 G20 Presidency. Riyadh.
- Kunst, J. R., Fischer, R., Sidanius, J., and Thomsen, L. (2017). Preferences for group dominance track and mediate the effects of macro-level social inequality and violence across societies. *Proceedings of the National Academy of Sciences*, 114(21), 5407-5412.
- Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68.
- Schwartz, S. H., and Bardi, A. (2001). Value hierarchies across cultures: Taking a similarities perspective. *Journal of Cross-cultural Psychology*, 32(3), 268-290.
- Welzel, C. (2013). *Freedom rising. Human empowerment and the quest for emancipation*. Cambridge, UK: Cambridge University Press.

6

Collaborative Innovation

Author: Dr. Henrique Carlos de Castro



Collaborative innovation provides a basis for accelerating the development of solutions to complex societal and global challenges through interactive, networked processes that harness a diversity of perspectives, capabilities, resources and reserves of expertise. G20 leaders should identify opportunities in transnational and global contexts to launch collaborative innovation processes to accelerate progress against the most urgent global challenges, including climate change, food and water security and pandemic preparedness.

In 2020, under the Saudi G20 Presidency, the work of the G20 has been oriented towards “Realizing Opportunities of the 21st Century for All” – and within that overarching theme towards the aims of “Empowering People,” “Safeguarding the Planet,” and “Shaping New Frontiers.” Accelerating global progress towards these aims requires collaborative innovation among G20 countries and beyond.

Collaboration is, of course, at the very heart of the G20’s multilateral work and innovation is becoming an ever more important area of focus. Both of these values were highlighted in the Osaka Leaders’ Declaration, in its call for the G20 “work together to foster global economic growth, while harnessing the power of technological innovation, in particular digitalization, and its application for the

benefit of all.” Collaborative innovation is thus central to the G20’s current goals, exemplified by the global call to “share material necessary for research and development” to combat COVID-19 (G20, 2020a.), and will be increasingly important going forward given the urgency of accelerating progress on the global challenges facing G20 member states and the world.

As a value, collaborative innovation refers to the need for accelerating the development of solutions to complex problems through interactive, networked processes. The power of collaborative innovation is precisely a function of the diversity of perspectives, capabilities, resources and reserves of expertise that it harnesses. The extensive literature on the benefits of economic clusters for driving innovation and productivity provides evidence of this relationship (for example, see Brookings Institute, 2017). Collaborative innovation can support many of the G20’s enduring and emerging goals, including its work towards human-centered economic growth, the creation of socially-driven and inclusive business models and enterprises, and preservation of the environment to ensure global food security and nutrition (G20, 2020b, 2020c; G20 Ministers, 2020). The G20 TechSprint 2020, an initiative that “seeks to showcase the potential for new innovative technologies to resolve operational problems in the

areas of regulatory compliance (RegTech) and supervision (SupTech)” (G20, 2020d), is a powerful example of collaborative innovation in action.

In addition to its specific value in accelerating progress in specific policy domains, investment in collaborative innovation and the cultivation of the creativity that is at its core can foster socio-economic development in unequal societies. Moreover, these values can generate human satisfaction, community well-being, dialogue, and cohesion (Phelps, 2013; United Nations/UNDP/UNESCO 2013). Thus, collaborative innovation is a powerful means of advancing the full spectrum of G20 goals.

While much of the innovation literature is focused on product, process, marketing, and organizational (OECD and Eurostat, 2019) innovation, there is a growing body of work on its role in public value creation (see Crosby et al, 2017). A range of related social values related to collaborative innovation, e.g., autonomy, must be reinforced in order to create a cultural breeding-ground for public innovation of this kind.

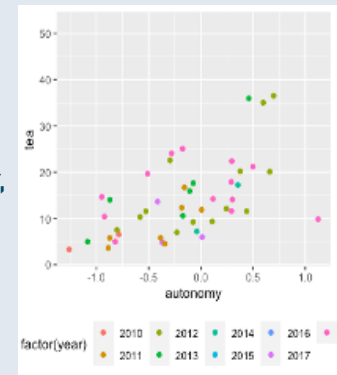
EMPIRICAL INSIGHTS

Autonomy is one of the key values underpinning the development of creativity and innovation (Baum and Baumann, 2018). The World Values Survey (WVS) has an Autonomy Index, based on Children qualities variables (Inglehart et al, 2014). The index correlates with Total Early Stage Entrepreneurial Activity (TEA) indicator that accounts for the percentage of the 18-64 years old population who are either a nascent entrepreneur or owner-manager of a new business. The correlation illustrates the need to promote autonomy in order to foster innovative entrepreneurship GEM, n.d.).

Countries:

Argentina, Brazil,
Chile, China,
Colombia, Ecuador,
Georgia, Germany,
Ghana, Japan,
Malaysia, Mexico,
Netherlands,
Nigeria, Pakistan,

Peru, Poland, Romania, Russia, Singapore,
Slovenia, South Africa, South Korea, Spain,
Sweden, Taiwan, Thailand, Turkey, United
States and Uruguay.



Spearheading inclusive public innovation initiatives that demonstrate the power of such approaches activates and reinforces collaborative innovation. Crosby et al (2016) provide the examples of efforts to address homelessness in Minneapolis, Minnesota, and the remarkable success of Grand Rapids, Michigan in becoming a globally recognized “green city” (Crosby et al. 2017). In these examples and many others, by creating structured space for collaborative innovation and giving stakeholders the opportunity to participate in the process directly, public officials were able to activate the underlying value experientially and with striking results.

Collaborative innovation can be activated or reinforced by enhancing the existing belief in the value itself, strengthening the ‘common sense’ understanding of the importance of collaboration and innovation, highlighting positive results experienced by individuals and companies, and reinforcing policies that reward collaborative actions (Pret and Carter, 2017).

Doing so does not require introducing a new value. Collaborative innovation is part of everyday life, and it is the basis for a culture that nurtures local knowledge, cutting-edge adaptability, and knowledge-based economies. ‘Collaboration’ and ‘interpersonal trust’ are pre-existing values in all societies, whilst ‘innovation’ is key for both survival (of people experiencing hardship), and competitiveness (of enterprises and corporations).

EMPIRICAL INSIGHTS


Deprived populations rely on creativity to survive in environments of income inequality. Public policies that support their innate values of collaborative innovation and creativity can help people experiencing hardship to escape the trap of entrepreneurship “by necessity” and contribute to sustainable country-level innovation (Mrożewski and Kratzer, 2017). Given the well-known relationship between Human Capital and Innovation (Dakhli and Clercq, 2004; Kaasa, 2009), some countries such as China (Pang and Plucker, 2012), Malaysia (Zain et al., 2004) and Finland (Sahlberg et al., 2015) are beginning to foster these values in schools, with promising results. There exists empirical evidence also that collaborative innovation helps both small and large firms to create wealth (Ketchen et al. 2007), and the public value creation at the public sector (Crosby et al. 2017).

Policy Recommendations

We recognize the vitally important work of the G20 in driving multilateral collaboration to address the most important global challenges facing all countries. We also strongly support the increasing prominence of innovation in the G20 agenda, most substantively this year under the Saudi G20 Presidency. Despite the significant legacy of G20 work in each of these areas, we see a significant opportunity for the G20 to contribute to accelerating progress on key global challenges by activating and reinforcing the value of collaborative innovation.

To do so, we call upon G20 member states at the national level to:

- Prioritize education and training programs in collaborative innovation and creativity, particularly in cutting-edge domains including Artificial Intelligence (AI) and Computational Thinking (CT) across all age cohorts. Digital culture is a basic imperative in a labor world permeated by technologies and algorithms. The introduction of CT and AI in schools (at all levels) enables people to live in an information society with autonomy and insight, especially the youth. Indeed, CT is part of the Pisa 2021 Mathematics Framework (OECD, 2018). This can be implemented through school curricula or Massive Open Online Courses (MOOCs) targeting teachers and students, and can become a global initiative, as it requires relatively small investments.
- Support local collaborative innovation initiatives through provision of access to best practices and funding. Funding for innovation initiatives must support individuals (innovative survival and local production, or technology-based start-ups), medium and large companies that depend on technology due to increasingly competitive markets, and public officials and leaders focused on creating public value.
- Promote a whole-of-society knowledge-sharing environment. Knowledge sharing environments can be encouraged through



public campaigns highlighting values of collaborative innovation and interpersonal trust. For example, by promoting successful collaborative innovation cases, especially those supported by Governments and NGOs' policies.

In addition, we call upon the G20 at the specifically multilateral level to:

- Gather and disseminate policy best practices and lessons learned from G20 member states in the activation of the value of collaborative innovation and the application of related approaches to accelerating progress in addressing complex societal issues; and,
- Identify opportunities as part of the G20 process in 2021 under the Italian Presidency to launch multilateral collaborative innovation processes to accelerate progress against the most urgent global challenges, including climate change, food and water security and pandemic preparedness. These processes would build on and go beyond core G20 multilateral policy processes in these areas by convening not just policy representatives, but also leading scientists and innovators from academia and the private sector to work collaboratively toward transformative solutions in a select set of areas of clear shared interest across the member states in which discontinuous progress is possible.

REFERENCES

- Brookings Institute. (2017). Clusters and innovation districts: Lessons from the United States experience. *Economic Studies* by Brookings, 35.
- Crosby, B. C., 't Hart, P., and Torfing, J. (2017). Public value creation through collaborative innovation. *Public Management Review*, 19(5), 655-669.
- Dakhli, M., and De Clercq, D. (2004). Human capital, social capital, and innovation: a multi-country study. *Entrepreneurship & regional development*, 16(2), 107-128.
- GEM (2020). Global Entrepreneurship Monitor.
- G20 (2020a). G20 Leaders' Statement: Extraordinary G20 Leaders' Summit; Statement on COVID-19. [https://g20.org/en/media/Documents/G20_Extraordinary%20G20%20Leaders%E2%80%99%20Summit_Statement_EN%20\(3\).pdf](https://g20.org/en/media/Documents/G20_Extraordinary%20G20%20Leaders%E2%80%99%20Summit_Statement_EN%20(3).pdf) (last accessed 10/10/2020).
- G20 (2020b). G20 Agriculture and Water Ministers Meet to Address Food Security and Sustainable Water Management. https://g20.org/en/media/Documents/G20SS_PR_AWMM_EN.pdf (last accessed 10/10/2020).
- G20 (2020c). G20 Environment Ministers promote a more sustainable future for all. https://g20.org/en/media/Documents/G20SS_PR_EMM_EN_17_9.pdf (last accessed 10/10/2020).
- G20 (2020d). G20 Techsprint 2020. <https://www.g20techsprint.apixplatform.com/landing> (last accessed 10/10/2020).
- G20 Ministers. (2020). G20 Labour and Employment Ministers Ministerial Declaration. https://g20.org/en/media/Documents/G20SS_Labour_And_Employment_Ministerial_Declaration_EN.pdf (last accessed 10/10/2020).
- Inglehart, R., C. Haerpfer, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin and B. Puranen et al. (eds.) (2014). *World Values Survey: All rounds - country-pooled*.
- Kaasa, A. (2009). Effects of different dimensions of social capital on innovative activity: Evidence from Europe at the regional level. *Technovation*, 29(3), 218-233.
- Ketchen, D. J., Ireland, R. D., and Snow, C. C. (2007). Strategic entrepreneurship, collaborative innovation, and wealth creation. *Strategic Entrepreneurship Journal*, 1, 371- 385.
- Luckin, R., Holmes, W., Griffiths, M., and Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*.
- Mrożewski, M., and Kratzer, J. (2017). Entrepreneurship and country-level innovation: Investigating the role of entrepreneurial opportunities. *The Journal of Technology Transfer*, 42(5), 1125-1142 OECD (2018). *Pisa 2021 Mathematics Framework (Draft)*. <https://www.oecd.org/pisa/sitedocument/PISA-2021-mathematics-framework.pdf> / (last accessed 23/09/2020).
- OECD and Eurostat (2019). *Oslo Manual 2018: Guidelines for collecting, reporting and using data on innovation*, 4th edition. OECD. <https://doi.org/10.1787/9789264304604-en>
- Pang, W., and Plucker, J. A. (2012). Recent transformations in China's economic, social, and education policies for promoting innovation and creativity. *The Journal of Creative Behavior*, 46(4), 247-273.
- Phelps, Edmund S. (2013). *Mass flourishing: How grassroots innovation created jobs, challenge, and change*. Princeton, NJ: Princeton University Press.
- Pret, T., and Carter, S. (2017). The importance of 'fitting in': Collaboration and social value creation in response to community norms and expectations. *Entrepreneurship & Regional Development*, 29(7-8), 639-667.
- Robinson, K., and Aronica, L. (2015). *Creative schools: Revolutionizing education from the ground up*. London, UK: Penguin Books.

- Sahlberg, P. (2015). Finnish lessons 2.0: What can the world learn from educational change in Finland?. Teachers College, Columbia University.
- United Nations/UNDP/UNESCO (2013). Creative Economy Report 2013. Special Edition. Creative Economy: Widening local development pathways. Geneva and New York: United Nations / <http://www.unesco.org/culture/pdf/creative-economy-report-2013.pdf> (last accessed 22/09/2020)
- Zain, M. Z. M., Atan, H., and Idrus, R. M. (2004). The impact of information and communication technology (ICT) on the management practices of Malaysian Smart Schools. *International Journal of Educational Development*, 24(2), 201–211.

