SOCIETY 5.0 LEADING IN THE BORDERLESS WORLD



Editor: Diah Karmiyati



SOCIETY 5.0 LEADING IN THE BORDERLESS WORLD

LEADING IN THE BORDERLESS WORLD

Editor: Diah Karmiyati



Copyright ©2021, Bildung All rights reserved

SOCIETY 5.0: LEADING IN THE BORDERLESS WORLD

A. Ifayani Haanurat I Abustan I Afif Suaidi I Afifah Putri Wulandari I Bambang Sukamto I Bulkani I Daryono I David Pradhan I Dhiva Maulida Rizqi Nur'aini I Diah Karmiyati I Dwi Bambang Putut Setiyadi I Esti Ismawati I Farhana I Fauzan I Hamdan Azhar Siregar I Hunainah I Ifadhila I Ishomuddin I Iswan Riyadi I Laili Nurul Fitiyah I M. Fatchurahman I Matthew Cant I Maya Dewi Dyah Maharani I Mimin Mintarsih I Mochamad Ridwan I Mohamad Zain Musa I Mohd Amin Bin Kadir I Mu`ah I Muhlis Fajar Wicaksana I Mulki Siregar I Nhelbourne K. Mohammad I Nindita Pinastikasari I Nugrahini Wisnujati I Nurul Qomariah I Pieter Sahertian I Raihan I Retno Tri Nalarsih I Ria Angin I Ronggo Warsito I Septiana Wijayanti I Sudjiwanati I Theresia Kriswianti Nugrahaningsih I Tobroni I Totok Hendarto I Umy Zahroh I Untoro I Zakiyah Zahara

Editor: Diah Karmiyati Desain Sampul: Ruhtata

Layout/tata letak Isi: Tim Redaksi Bildung

Perpustakaan Nasional: Katalog Dalam Terbitan (KDT)

Sociey 5.0 Leading in the Borderless World/Editor Diah Karmiyati/Yogyakarta:

CV. Bildung Nusantara, 2021

x + 348 halaman; 15 x 23 cm ISBN: 978-623-6658-80-2

Cetakan Pertama: 2021

Penerbit: **BILDUNG**

Jl. Raya Pleret KM 2

Banguntapan Bantul Yogyakarta 55791 Telpn: +6281227475754 (HP/WA)

Email: bildungpustakautama@gmail.com Website: www.penerbitbildung.com

Bekerja sama dengan Program Pascasarjana Universitas Muhammadiyah Malang

Anggota IKAPI

Hak cipta dilindungi oleh undang-undang. Dilarang mengutip atau memperbanyak sebagian atau seluruh isi buku tanpa seizin tertulis dari Penulis dan Penerbit.

EDITORIAL Spirituality and Humanity to Prepare for Technological Advancement in Society 5.0

Nowadays, with a face paced development of science and technology, we are surrounded by innovation in enabling technologies such as Artificial Intelligence (AI), Internet of Things (IoT) and robotics. Many scientist and expert are concerned if someday this technology is no longer helping people but mutated into a technological monster. With that possibility of the technology take over humanity, Japanese government announced the term society 5.0. The concept of society 5.0 is presented by Japanese cabinet in January 2016 as a core concept for their basis of economic and policy management. It also aimed for the investment of the future of mankind. It is aimed to balance the technology with a human centred approach. A study has outlined how this human centred society is envisioned to be aligned with Sustainable Development Goals (SDG such as ending poverty through Ed-Tech (Education Technology) or through AgriTech (Shiroishi et al., 2018).

Indonesia as a country with the 4th largest population in the world has not yet fully aware with human centred approach for technologies. Yes, it is true that our younger generation, millennial and generation Z begin to develop and utilize IoT and AI. For instance, the development of e-Fisheries with an aim to help fisherman automatically feeding their fishes in due time with a sensory intelligence machine. However, the utilization of those technology is far more behind those in developed country. Indonesia is still on their 4.0 stage. While we are still in the beginning of 4.0, it is important to considered what we valued the most to prepare for 5.0: our construction of spirituality and humanity.

As a country with five major religion, and our first Pancasila stated to "Believed in God", the construction of spirituality is very important. Spirituality comes from within us that we have a higher calling to do what's good, what's moral, and what not from our belief system. By

SOCIFTY 5.0

standing on these main principals of being a Moslem, we are keen on walking ahead to face the development of the technology without worry.

In preparing for the society 5.0, it is necessary for us to have a strong principle at hearts that based on our belief system. When we possess a strong spirituality, we have a tendency to be kind to other people. Kindness is the basis of practicing humanity. When we are not judging why someone do what they do, but rather inquire why, we value them as a human. Therefore, we practice humanity.

To face technological advancement, we do not need to be smarter than the technology. As its purpose is smarter than us, to help us, we are human, need to construct our spirituality and the humanity so that we won't be lost in the advancement of technology. We stand by our principle to face a fast-changing world driven by technologies. We will be a far more superior than those enabling technologies by instilling what we had all along, our belief and our ability to be kind.

Diah Karmiyati

TABLE OF CONTENTS

Editorialv	
Table of Contents _	vi

 Utilizing Equity Crowdfunding Toward The 5.0 Society On Islamic Economic Perspective __1

A.Ifayani Haanurat and Ifadhila

• Measuring National Life Justice Based __9

Abustan

• Challenges of the Cooperative-UMKM Sector in Facing Industrial Revolution 4.0 __18

Abustan

Bulkani

 Optimizing Community Participation at the Higher Education Level during Pandemic Period through KKN-DR __39

Daryono

 Technology, Disasters, and Inclusivising Digital Access for Education __52

Diah Karmiyati and David Pradhan

 Religious Values in Javanese Poetry Text as The Fundamental Education Capital for Society 5.0 __61

Dwi Bambang Putut Setiyadi

Wulang Reh as a Teaching Material for Literature in Society 5.0

Esti Ismawati

•	Spiritual Power Steadies Nation Characters in the Era of Society 5.0 Based on Pancasila81 Farhana and Mimin Mintarsih
•	Freedom of Learning and Independent Campus: An Inevitability89 Fauzan
•	The Perspective of Implementation for Partnership Agreements in Improving The Competitiveness of Indonesian Cooperatives Based on Justice100 Hamdan Azhar Siregar
•	Problems of Blended Learning in The Pandemic Covid-19: Psychological Overview109 Hunainah and AfifSuaidi
•	Blended Learning Problems in Terms Of Psychology118 M. Fatchurahman
•	Socioeconomic Disparities of Climate-Change Impact On Physical And Mental Health In Indonesia127 Matthew Cant
•	Uncertainty of Sustainability of Marine and Fishery MSMEs in Coastal Areas and the presence of Maritime Autonomous Surface Ships in the Era of Society 5.0138 Maya Devi Dyah Maharani
•	The Role Of Social Capital In Building Fairly Competition Between Traditional And Modern Markets On Society 5.0 149 Mochamad Ridwan
•	Education in Cambodia160
	Mohamad Zain Musa
•	Perspective on Problem Solving in Singapore Education System in the Era of Technology172 Mohd Amin Bin Kadir
•	Customer Loyality Current Stereotypes and Challenges184 <i>Mu`ah, MM, M.Pd</i>

- Problems in Indonesian Language Online Learning __190
 Muhlis Fajar Wicaksana
- Community Empowerment Model through Agricultural Product Processing Innovations __199

Mulki Siregar and Raihan

- An Implementation of Islamic Education in Central Mindanao, Philippines: A Case Study at Cotabato State University __206 Nhelbourne K. Mohammad. Tobroni. Ishomuddin
- Mechanization of Agriculture in Efforts to Create Society 5.0 in ASEAN __212

Nugrahini Wisnujati

• The Role of Marketing Mix in Increasing Customer Satisfiction Nine Coffee Bondowoso __228

Nurul Qomariah and Afifah Putri Wulandari

• The Role of Leadership and Entrepreneurship Mindset for Competitive Advantage in the Society 5.0 Era __244

Pieter Sahertian

• The Pattern of Water Resources Resilience in Coastal Areas Centered on Balance in Society 5.0 __253

Retno Tri Nalarsih

- E-Village Financial System Facing the Society 5.0 __273
 Ria Angin
- Implementation of Moral Intelligence Values in the Age of Society 5.0 __281

Ronggo Warsito, Dhiva Maulida Rizgi Nur'aini, Septiana Wijayanti

Aggressive Virus Fosters Student Innovation Towards the Era
 5.0 289

Sudjiwanati and Nindita Pinastikasari

 Building Higher-Order Thinking Skills (HOTS) Through Metacognition-Based Learning with Thematic-Scientific Approach __302

Theresia Kriswianti Nugrahaningsih and Iswan Riyadi

- Development of the Productive Fisheries Sector as an Effort to Reduce the Poverty Rate of Fishermen in Coastal Areas __311
 Totok Hendarto
- Thinking Process of Smp Students Completing Trigonometry Based On The Van Hiele Theory __321

Laili Nurul Fitiyah and Umy Zahroh

• Legal Empowerment on The Utilization of The North Coast of Jakarta in The Era 5.0 Based on Paradigm Participatory Perspective __331

Untoro and Bambang Sukamto

 Customer's Response to The Role Brand Images, Prices, Distribution Channels, Promotions In Purchase Decisions 341

Zakiyah Zahara

Technology, Disasters, and Inclusivising Digital Access for Education

Diah Karmiyati¹ and David Pradhan²

Introduction

The present epoch of human history, the Anthropocene, is driven and facilitated by modern technology to such an extent that the boundaries of interactions between the biophysical human society and digital virtual world is becoming blurred, and an emerging "technosphere" [26] is rapidly stimulating dramatic shifts in global political economy, international interactions, and national administrative mechanisms. The pervasiveness of the digital Information and Communication Technology (ICT) revolution inheres and facilitates most aspects of modern life such as economic globalization, cultural dissemination, and societal interactions at all levels [27]. Governments in many developing countries, keen to improve delivery of development and empowerment schemes to target populations, and seeking increased ease of interaction with citizens have also embraced the immense possibilities of technological innovation in public administration by adoption of ICT in Governance popularly called e-Governance [28]. The unprecedented Covid 19 induced worldwide lockdown in 2020 accentuated the pervasive importance and influence of ICT. It exposed that there are hardly any areas of life untouched or uninfluenced by digital technology, from mundane every day activities like purchasing groceries online or enjoying online entertainment during quarantine, to critical matters like tracking infectious contacts for Covid 19 pandemic containment through apps, information dissemination through social media, availing critical medical consultation online, or perhaps most visibly, accessing education, through online classes on digital platforms.

¹ Diah Karmiyati, Fakultas Psikologi, Universitas Muhammadiyah Malang, Indonesia, diah@ummac.id

² David Pradhan, School of International Studies, Jawaharlal Nehru University, India, happy48_isa@jnu.ac.in

The objective of this article is to explore the transformative influence of adoption of modern technology on delivery of essential Government services such as education by the State administration, and seeks to identify gap areas of digitization in governance which need legal and policy intervention to ensure inclusivity and obviate socioeconomic discrimination, especially in developing democratic States of the Global South. This review article is based exclusively on secondary sources and adopts the qualitative analytical methodology for its inferences. Drawing from the corpus of existing scholarly literature on the subject, a contextual meta-study of the topic based on previous work on the subject is attempted to comprehend the implications of the digital divide for delivery of State services to society in developing democracies by scrutinizing the obligatory online education by Public Educational Institutions in India during the Covid 19 Pandemic in 2020 as a heuristic of e-Governance. This article is limited to the analysis of just one subset of the various services provided to the citizens through e-Governance i.e. the provisioning of online education to children. It is geographically focused and based primarily on the situation obtained in India, although references will be made to other developing States.

Results and Discussion:

Governance is the public sphere of executive policy framing and organized implementation within the parameters of the legislative directive. It is essentially a function of the Government regime in power and its implementing bureaucrats. Scholars have emphasized the role that good governance plays in supporting equitable development, inclusive social empowerment and strengthening democracy in developing States [1]. The potential of ICT in addressing citizen services through real time information dissemination, administrative reorganization, and increased ease of economic development is unquestionable. Applications of modern technology especially ICT, digitization, and automation in public administration for structuring and simplifying internal organizational operations of Government departments, and facilitating efficient and expeditious government services delivery through a responsive two-way communicative and participatory process is called e-Governance which is being projected as a crucial pillar of "post-bureaucratic" good governance

[2]. Scholarship on the subject links e-Governance and digitization of public services delivery with reduction of administrative delays and potential corruption associated with manual bureaucratic administrative process in the developing countries [3]. The undeniable evolutionary potential of ICT based digital e- Governance to transform the Statist administrative archetypes, usher in good governance and make the legal "Right to Education" more accessible and equitable through advanced technological interventions in the educational field by facilitating easy availability of educational resources and objective assessment of academic performance is unparalleled in human history [4]. Governments across the world have shown an increasing propensity towards the use of ICT for public administration, and e-Governance of almost all sectors of Government enterprise and responsibility is viewed as a panacea for public service delivery. Facilitatio of access to the citizens to remote nd feasible access for participation and beneficiation from initiatives of the government is an essential aspect of e-Governance [5].

The real test of the efficacy, resilience and responsiveness of any Governance model is during emergencies. The most prevalent emergencies confronting governance and executive administrators are the natural and anthropogenic disasters which put citizen life and property at risk and require immediate and specialized State intervention to protect [6]. During times of emergency of disasters, the welfare role of the State to intervene is essentialized and in these instances of administrative action, the deployment and role of e-Governance is emergent [7]. The Novel Coronavirus, which originated in Wuhan, China, is a Global Pandemic of the droplet borne highly infectious virus, which has necessitated preventive lockdowns, and forced confinement of people to their homes as Governments across the world struggle to contain the contagion [8]. In these circumstances, ICT has been increasingly deployed for communicating awareness about the infection, enforcing compliance with mandated health regulations, and delivering essential services which are the responsibility of the State to the citizens. The facilitation of essential services to which citizens are legally entitled, falls within the rubric of obligatory public administration, and their seamless delivery to citizens through deployment of ICT is a domain of e-Governance.

Unforeseen environmental factors, such as disasters (pandemic) can disrupt conventional education in classes, and in such cases, ICT enabled education for remote teaching ensures continuity of learning. The temporary closure of all institutions of education in most countries, as a component of social distancing to counter the spread of contagion has necessitated the State to give approval for, and promote online learning for students confined to their homes which can be achieved for lower transactional costs [9]. While there are variable levels of infrastructure for utilization of ICT, differential competencies among teachers and system administrators for imparting online education to an entire generation of students, and differential levels of access to the electronic equipment and internet access among the students based on the socioeconomic status of their families [10], the online learning imparted by Government Schools and Universities in India, has followed a rather uniform pattern that expects the students to access classes. Literature on the subject shows that in certain abstract subjects such as humanities and social sciences, the online classes are an appropriate substitute to regular physically interactive classes in schools [11]. Other scholars have shown that subject knowledge retention and comprehension of students attending distance learning through remote imaging mode of ICT based classes is similar to those of regular mode [12]. However, in science, technology, and experiment-based subjects such as psychology, the efficacy of online education has been reported to be limited in comparison to conventional class-based learning [13]. In these subjects which necessarily require face to face Student-Teacher interaction and personalized attention, even the use of adaptive technological access [14] is doubtful to be optimal in imparting necessary skills to the students. Similarly, the online education of students with disabilities or special needs is inadequately addressed in the reductionist conception of education that fetishizes technology [15]. Online education, at least in some subjects, cannot therefore be a universal template replacing conventional face to face education.

The technological innovations and application in e-Governance of public education for remote interaction with students can indubitably catalyze the continuation of access to education during emergencies if conscientiously harnessed. However, ubiquitous importance of ICT in accessing social benefits, including through the Statist development

programs including public education, brings to the fore the issue of the existence of a societal digital access gap, which originates from pre-existing socio-economic status. Digital divide is the variation of levels of access to modern digital technological devices, fast internet, relevant operational skills, infrastructural support, and socioeconomic access to devices, electricity, and internet for actualizing digital access. Scholars have noted with concern that digital divide serve to amplify the differences between the privileged and the underprivileged. [16]. An excessive techno-centricity of public administration can impede access to food rations under the public distribution system intended to provide basic food security to indigent resulting in malnutrition in populations, or lack of access to high-speed internet and/ or electronic equipment can adversely impact educational performance of students undertaking online education [17].

The digital divide may also manifest geographically, because of uneven sub-national development of infrastructure in different regions, rather than socio-economically, wherein even those able to afford digital access may not be able to do so due to their location in remote areas where internet coverage may be patchy or nonexistent. The results of thisdeprivation of access to digital technology, manifests as inability among the most vulnerable and marginalized sections to avail the State mediated welfare entitlements meant for them and in some cases a violation of their Rights. Scholars have shown that access to electronic equipment and to high-speed internet conducive for online education is linked to socioeconomic status [18]. Even where the students have devices for accessing online education, socioeconomic factors can manifest through variable device capability, disadvantaging students from poorer families and creating psychological inferiority complexes [19]. The detrimental impact of unequal access to digital technology and internet on students undertaking online education has been consistently noted by research [20]. Other scholars have noted the need for equity in access to educational technology to address socio-political and economic inequality which perpetuates intergenerationally from the lack of access to education or even from sub-optimal education which renders the students ineligible for employment, or forces them to be underemployed [21].

This inequality in access to education and consequent employment can snowball rapidly widen into social disempowerment

and economic exclusion of the poor and marginalized in developing democracies with incipient social and economic disparities, posing a potent threat that can rupture political stability. An overreliance on technology without tempering use of ICT, can even pose a threat to State security, as all digital ICT technology is ultimately susceptible to cyber-attacks by vested interests and computer viruses which can paralyze access to basic services expected by the citizens and increase political parochialism, disaffection towards the government and, in extreme cases, threaten State sovereignty [22]. While inequality is an endemic problem in every society, it can also lead down more dangerous pathways, due to complex human societal and political factors, such as exacerbation of existing disparities of marginalized sections due to the digital divide and consequent denial of literacy to sections of the population unable to afford electronic equipment [23].

The above brief discussion demonstrates the futility of solely relying on myopic technologically deterministic policies without considering the humanistic aspects of technological applications in human society. This folly of technological solutionism sadly afflicts the e-Governance based "new public management" model which is promoted by many governments. This model is marked by the tendency of "entrepreneurial government" administrations withdrawing from welfare and yielding to "market based public administration" led by private business interests, even as States, beset by economic hardships due to the Covid 19 induced economic slowdown, seek to withdraw from welfare programs and increasingly privatize sectors which though economically high, are crucial for social and ultimately political stability. Ignoring these crucial imperatives can increase social, economic, and political cleavages. Scholars emphasize the need for a participatory grass root level involvement of people and civil societies instead of a private sector mediated, market driven and Government imposed e-Governance model [24]. This would necessitate a legislative effort to promulgate legal and structural measures and mechanisms to offset the negative impacts of unbridled technological reliance [25], while ensuring that instead of a mechanical solution seeking through the application of technology. Technology is indeed a tool, and a force multiplier for achievement of the policy objectives of the administration, but a more important component of effective and

humane e-Governance is empathy and concern for the dispossessed, only which can mitigate the digital divide.

Conclusion

The issue of unequal digitization and penetration of e-Governance benefits accessible by different sections of society generally, and of different students to online education particularly as a result of differential digital access is a crucial problem as demonstrated by the Covid 19 pandemic. There is a need to engage with the problem from a human empathetic perspective rather than a technocentric overreliance.

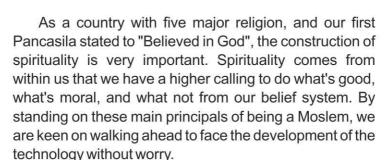
References

- Joseph, S., "Democratic Good Governance: New Agenda for Change", Economic and Political Weekly, Vol. 36, No. 12, (Mar. 24-30), p. 1011, 2001
- Barthwal, C.P., "E-governance for Good Governance", The Indian Journal of Political Science, 64 (3-4): 285-308, 2003.
- Leitner, C., "eGovernment in Europe: The State of Affairs," European Institute of Public Administration, Maastricht, the Netherlands, 2003.
- Aleven, V., Beal, C. R., & Graesser, A. C., "Introduction to the special issue on advanced learning technologies". Journal of Educational Psychology, 105(4), 929–931, 2013.
- Patel, A.R., "E-governance in Gujarat", ANARTA, The Journal of North Gujarat University, 9 (10): 70 77, 2001.
- McNeill, J.R. & Engelke, P., "The Great Acceleration: An Environmental History of the Anthropocene since 1945" Harvard University Press, 2014.
- Sinha, A., Kumar, P., Rana, N. P., Islam, R., & Dwivedi, Y. K., "Impact of internet of things (IoT) in disaster management: a task-technology fit perspective." Annals of Operations Research, 1-36, 2017.
- Lee, A., "Wuhan Novel Coronavirus (COVID-19): Why Global Control is Challenging? "Public Health, 179, A1-A2, 2020.
- Sun, L., Tang, Y., &Zuo, W., "Coronavirus Pushes Education Online." Nature Materials, 19(6), 687- 687, 2020.

- Goldschmidt, K., "The COVID-19 Pandemic: Technology Use to Support the Wellbeing of Children." Journal of Pediatric Nursing, 11 (2) 26-38, 2020.
- Stacey, E., Peter, S. J., Barty, K., "Adult learners in the workplace: Online learning and communities of practice." Distance Education, 25(1), 2004.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A., "The difference between emergency remote teaching and online learning." Educause Review, (2) 27, 2020.
- Rappolt-Schlichtmann, G., Daley, S. G., Lim, S., Lapinski, S., Robinson, K. H., & Johnson, M. "Universal Design for Learning and elementary school science: Exploring the efficacy, use, and perceptions of a web-based science notebook." Journal of Educational Psychology, 105(4), 1210, 2013.
- Walkington, C. A., "Using adaptive learning technologies to personalize instruction to student interests: The impact of relevant contexts on performance and learning outcomes." Journal of Educational Psychology, 105(4), 932, 2013.
- Hashey, A. I., & Stahl, S., "Making online learning accessible for students with disabilities." Teaching Exceptional Children, 46(5), 70–78, 2014.
- Graham, M, "Time machines and virtual portals: the spatialities of the digital divide" Progress in Development Studies 11: 211-227, 2011.
- Attewell, J., & Battle, P. "Home computers and school performance." The Information Society, 15(1), 1–10, 1999.
- Zillien, N., & Hargittai, E."Digital distinction: Status-specific types of Internet usage." Social Science Quarterly, 90, 274–291, 2009.
- Graham, C., Culatta, R., Pratt, M., & West, R., "Redesigning the teacher education technology course to emphasize integration. Computers in the Schools, 21(1–2), 127–148, 2004.
- Schofield, J. W., & Davidson, A. L., "Achieving equality of student Internet access within schools: Theory, application, and practice" in A. H. Eagly, R. M. Baron, & V. L. Hamilton (Eds.), The social psychology of group identity and social conflict (pp. 97–109). Washington, DC: APA Books, 2004.

- Warschauer, M., & Matuchniak, T., "New technology and digital worlds: Analyzing evidence of equity in access, use, and outcomes." Review of Research in Education, 34(1), 179–225, 2010.
- Bratton, B. H., "The Stack: On Software and Sovereignty" Massachusetts, CA: MIT Press, 2016.
- Tate T., Warschauer M., "The Digital Divide in Language and Literacy Education." In: Thorne S., May S. (eds) Language, Education and Technology. Encyclopedia of Language and Education (3rd ed.). Springer, Cham., 2017.
- Barthwal, C. P. (ed.), "Good Governance in India" New Delhi: Deep and Deep Publications, 2005.
- Morozov, E, "To Save Everything, Click Here: The Folly of Technological Solutionism", New York: Public Affairs, 2013.
- Rosol, C., Nelson, S. & Renn, J. Special Issue: Perspectives on the Technosphere (Parts I and II) Anthropocene Review. 4:1 / 4:2 (2017)
- Kumar, Gaurav (2004). E-governance. Employment News Weekly, 28, (52): 1
- Berleur, Jacques (1997) 'Culture and Democracy Revisited in the Global Information Society', Information Technology in Developing Countries 7(1).

SOCIETY 5.0 I FADING IN THE BORDERI ESS WORLD



In preparing for the society 5.0, it is necessary for us to have a strong principle at hearts that based on our belief system. When we possess a strong spirituality, we have a tendency to be kind to other people. Kindness is the basis of practicing humanity. When we are not judging why someone do what they do, but rather inquire why, we value them as a human. Therefore, we practice humanity.

To face technological advancement, we do not need to be smarter than the technology. As its purpose is smarter than us, to help us, we are human, need to construct our spirituality and the humanity so that we won't be lost in the advancement of technology. We stand by our principle to face a fast-changing world driven by technologies. We will be a far more superior than those enabling technologies by instilling what we had all along, our belief and our ability to be kind.







