

DEMOCRATIZING AI

How can we locate the position of Artificial Intelligence when it comes to democracy? Rather than trying to put a framework built on an agent-based or globalization contexted approach, this paper aims to evaluate the Artificial Intelligence from a contextual perspective. While doing so an attempt on understanding how it can function within a community gains a considerable foothold. To achieve a success in such an attempt, two of the most important democratic discourses that resonate on this ground emerge critical: rule of law and the sustainable development goals. Especially, the recent Covid pandemic gave a considerable case study through which we can completely comprehend both of the matters of how AI can be used in surveillance and how can we be sure that it can be democratized.

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Introduction

Analytical Assumptions – Communitarian AI governance

It is easy to be critical of unspecified, or empirically untested relationships between AI and community,¹ and that is why in the context of trusted robotics we argue for interrogating trust reciprocation from human recipients to robots providing identified and community-prioritized functions.² More interestingly for the purposes of this paper is the possibility of active social relationships that give substance to AI and community offering the possibility of ‘democratizing’ AI governance, which will be touched upon in the conclusion.

To date, the *AI in community* language concerned with how community-mindful AI deployment can initiate relationships of trust within recipient communities has not progressed to a sufficiently developed considerations of governance and communitarian democracy beyond concerns that trust has regulatory impacts in such directions.³ At least at the level of suggestion, this paper seeks to extend that thinking in arguing that through more equitable and inclusive deployment of AI (which considers the benefits to social infrastructure of technology advancement) the legitimacy of AI and big data use is enhanced for social as well as market purposes. This suggestion also approaches our interpretation of the role of empowered data subjects in digital self-determination (DSD), which unfortunately there is no space to detail in what follows.⁴

In recalling a brief case-study on AI-assisted pandemic surveillance⁵ and exposing it to an additional analysis in terms of equality and inclusion (particularly locating on discrimination and vulnerability), it is possible to shift the democratic focus to the powers behind deployment, rather than on the technology itself. It would show how the positive benefits of this surveillance was extensively denied in the South World (absent inclusion). In this example, it becomes apparent how the selective and myopic application of technologized surveillance regimes (or their absence) over already discriminated groups exacerbates structural inequalities.⁶ More generally,

¹ Mark Findlay and Willow Wong, “Kampong Ethics,” *Artificial Intelligence & Society: Legal, Social & Developmental Narratives from Asia* (forthcoming).

² Wong Zhang and Findlay, “Trust and Robotics: A Human-centric Pathway to Robots in Community,” (forthcoming).

³ Mark Findlay and Willow Wong, “Trust and Regulation: An Analysis of Emotion,” *CAIDG Research Paper*, (10 June 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3857447

⁴ “Digital Self Determination,” Centre for AI and Data Governance, n.d., <https://caidg.smu.edu.sg/digital-self-determination>

⁵ This case-study can only here receive the most outlined attention. For the full scope of our work see - <https://caidg.smu.edu.sg/covid-resources>

⁶ On how vulnerable groups are discriminated against through technologized surveillance and control measures during COVID-19 see: Mark Findlay et al., “The Vulnerability Project: The Impact of COVID-19 on Vulnerable Groups,” *SSRN Electronic Journal*, (2021), <https://doi.org/10.2139/ssrn.3907183>

it will put forward how the legitimacy of surveillance policy and control powers at large have been damaged by inequitable and non-inclusive imposition, and created strains on governance and drifts away from democratic values.

“This paradox is one reason why AI in community is advocated as the governance location for AI and big data. Communitarian incarnations of democratic values are likely to be more closely aligned with and reflective of purposes for AI that are socially sustainable.”

In short, the thesis of the paper is that if AI in community is respectful of the democratic values⁷ of inclusion, and equality (leading on to governance legitimacy fleshed out in the final sections), then the potential for AI to be better governed at the community level, and hereafter to support communitarian governance in wider applications, can be realized. The structure of the argument is to employ two important democratic discourses that resonate with AI governance in the community:

- rule of law and
- the sustainable development goals,

in critically reviewing how COVID control powers in terms of AI-assisted surveillance are said to challenge liberal democracy in a broad individual rights understanding, while leaving behind more long-lasting negative impacts on vulnerable communities. If these communities had been included in a more equal exercise of control powers, then the legitimacy of AI technology and its potential to legitimize democratic powers would be endorsed.

SDGs, Equality and COVID Surveillance and Control Policy – North/South Divide

The United Nations Sustainable Development Goals (SDGs) are premised on two grand but simple assumptions – for its diverse populations, that the globe is not equitable, and it should not be so. Equality of opportunity, equal access to the fundamentals of human dignity and equal protection under universal human rights are the essence of the UN mission. Translated into sustainable development, and

⁷ Such ‘respect’ in terms of Digital Self-determination is not confined to a rights discourse which I question in any case. See Mark Findlay, “Flipping the Other Way: Access, Not Protection, and the Role of Rights,” (16 April 2019). Available at SSRN: <https://ssrn.com/abstract=3372677> or <http://dx.doi.org/10.2139/ssrn.3372677>

along with Goals 5 and 17 and their focus on gender equity, Goal 10 aims at reducing inequality within and among countries.⁸ While the measures of inequality/equality are couched in variables that influence economic development aspirations, human equality can be considered as a fundamental democratic value – equality before the law.

Recently, there has been a suggested alignment between AI technological advancement and the achievement of the SDG's.⁹ However, as some have cautioned, the global deployment of AI can be a hegemonic project¹⁰ if it is driven by the economic motivations of big tech, located in a world trade model that has always been pitted to the disadvantage of vulnerable economies in the Global South.¹¹ Indeed, the *AI for social good* mantra is regularly absent a recognition of the profound and debilitating dependencies inherent in techno-colonialism.¹² This avoidance of the power imbalance that tech transformation can visit on vulnerable economies, enables the hope that AI global proliferation will necessarily achieve the sectoral power displacements essential for democratic sustainable development. However, putting power imbalance in the picture and instead AI may be a retarding agent for democratic values, unless by making clear the power imbalances this provides the opportunity for AI to correct these through power dispersal and thereby promote / catalyse democratic values.

Underlying a healthy circumspection about whether AI deployment across the globe will democratize in its wake, is the understanding that AI promotion by many state/corporate collaborations is seen as a silver bullet for stimulating economic growth, or at least avoiding no-growth/de-growth.¹³ In any prevailing neo-liberal world trade model where AI is dis-embedded from public good priorities and captured by states and multi-national corporations, it is possible for AI deployment to reflect

⁸ This SDG calls for reducing inequalities in income as well as those based on age, sex, disability, race, ethnicity, origin, religion or economic or other status within a country. See: "Goal 10: Reduce Inequality within and among Countries," United Nations - Department of Economic and Social Affairs Sustainable Development, n.d., 10, <https://sdgs.un.org/goals/goal10>

⁹ Barbara Rosen Jacobson, "Digital Technology for the Sustainable Development Goals," *Diplomacy.Edu* (blog), n.d., <https://www.diplomacy.edu/blog/digital-technology-sdgs/>

¹⁰ Nick Couldry and Ulises Ali Mejias, "The decolonial turn in data and technology research: What is at stake and where is it heading?," *Information, Communication & Society* (November 2021): p. 1–17. <https://doi.org/10.1080/1369118X.2021.1986102>.

Meredith Whittaker, "The steep cost of capture," *Interactions*, Vol. 28, No.6 (2021): p. 50–55. <https://doi.org/10.1145/3488666>

¹¹ Mark Findlay, "Property Resisted," in *Law's Regulatory Relevance: Property, Power and Market Economies* (Cheltenham: Edward Elgar, 2017): Chapter 5.

¹² Christopher Chase-Dunn, "The Effect of International Economic Dependence on Development and Inequality: A cross national study," *American Sociological Review*, Vol. 40, No. 6 (December 1975): p. 720-738

¹³ "AI is the future of growth," *Accenture*, (2017), https://www.accenture.com/_acnmedia/pdf-57/accenture-ai-economic-growth-infographic.pdf; Jacques Bughin et al., "Notes from the AI frontier: Modelling the Impact of AI on the World Economy," Discussion Paper, *McKinsey Global Institute*, (18 September 2018), <https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-modeling-the-impact-of-ai-on-the-world-economy#part1>

and comply with the processes and institutions of democratic governance but not promote equality as it is determined in the SDGs.¹⁴

This paradox is one reason why *AI in the community* is advocated as the governance location for AI and big data. Communitarian incarnations of democratic values are likely to be more closely aligned with and reflective of purposes for AI that are socially sustainable. Polanyi argues that in exchange market economies, the further that fictitious commodities (and AI and data could qualify as such) dis-embed from the social, the more likely it will be that counter-movements will emerge that attempt to return these commodities to social relevance.¹⁵ Any socio-political enterprise in which AI is employed to ensure equality and counter discrimination will need to confront the exclusionist economic pressures that marketize technology, and the data they produce in neo-liberal individualist wealth creation imperatives.¹⁶

“As our work on COVID surveillance establishes, there is little doubt that community apprehension about AI, in large part as suggested above, revolved around arbitrary power. To overcome this concern, standardisers and the engineering community look for endorsements of safety and robustness through mechanical risk minimization.”

During the pandemic, many nations employed AI-assisted surveillance technologies, and mass data sharing as key components to their health/safety control strategies. In several of these societies, the structural discrimination directed, for instance, against migrant worker populations made these communities of high risk.¹⁷ Overcrowded living conditions, poor hygiene and diet, limited access to sufficient preventive health-care services, and a general myopic social exclusion meant that when the risks were recognized too late, harsh surveillance regimes, mass lockdowns and incubation, accompanied by significant psychological stress from the uncertainty of future family contact, harshly evidenced that these vulnerable groups were further discriminated against with AI-assisted technology as part of the state’s armory.¹⁸

¹⁴ Mark Findlay, (2017), chap. 5.

¹⁵ Karl Polanyi, *The Great Transformation: The political and economic origins of our time*, (Boston: Beacon Press., 2001)

¹⁶ Mark Findlay, *Globalisation, Populism, Pandemics and the Law* (Cheltenham: Edward Elgar, 2021).

¹⁷ Jane Loo, Josephine Seah and Mark Findlay, “The Vulnerability Project: Migrant Workers in Singapore,” *CAIDG Research Paper*, (29 January 2021), <https://papers.ssrn.com/abstract=3770485>

¹⁸ Seah Loo and Findlay, (2021).

Many of the confinement requirements could not have been achieved without AI-assisted monitoring and body tracing.

Some more authoritarian states engaged in mass data sharing policies where private sector commercial databases and state repositories surveilled populations to an extent previously unimagined.¹⁹ While this process may have appeared universal in its coverage, it had a discriminatory impact on workers traveling across provincial borders, and those not able to enjoy the protective benefits of working from a domestic setting. In addition, due to the sometimes faulty analysis of this merged data, not insignificant numbers of citizens were excluded from travel and employment through false readings.²⁰

More worrying, as with vaccine availability worldwide, the selective access to AI-assisted control technologies due to poverty, displacement, and technological marginalization meant that state responses particularly to transient and racially victimized populations were often brutal, delayed, and counterproductive.²¹

Discrimination was also visited on the elderly²² who due either to their limited digital literacy, possession of dated technology, or institutional confinement where family contact was reduced to on-line encounters, fell outside the beneficial influence of AI-assisted surveillance instead it enabled freer association and movement for the wider population if technological compliance was available and ensured.

It would be incorrect to lay blame for all the discriminatory consequences of COVID control and the disquiet these produced²³ on AI tech and big data. However, these instances summarized above are only some of the instances where the exercise of state/private sector surveillance powers, reliant on AI and its data, challenged the legitimacy of authority styles.²⁴ Few are the examples where communities were

¹⁹ Cate Cadell, "China's Coronavirus Campaign Offers Glimpse into Surveillance System," *Reuters*, 26 May 2020, <https://www.reuters.com/article/us-health-coronavirus-china-surveillance/chinas-coronavirus-campaign-offers-glimpse-into-surveillance-system-idUSKBN2320LZ>

²⁰ Helen Davidson, "China's Coronavirus Health Code Apps Raise Concerns over Privacy," *The Guardian*, 1 April 2020, <https://www.theguardian.com/world/2020/apr/01/chinas-coronavirus-health-code-apps-raise-concerns-over-privacy>

²¹ Julie E. Cohen, Woodrow Hartzog and Laura Moy, "The dangers of tech-driven solutions to COVID-19," *Tech Stream*, 17 June 2020, <https://www.brookings.edu/techstream/the-dangers-of-tech-driven-solutions-to-covid-19>; Susan Landau, Christy E. Lopez and Laura Moy, "The Importance of Equity in Contact Tracing," *Lawfare*, 1 May 2020, <https://www.lawfareblog.com/importance-equity-contact-tracing>

²² Tessa Oh, "Covid-19: NGOs Step up Outreach Efforts, as Seniors Try to Stay Occupied While Isolated at Home," *Today*, 18 October 2021, <https://www.todayonline.com/singapore/covid-19-isolated-seniors-tell-how-they-stay-occupied-while-staying-home-ngos-step>; Akshita Nanda, "Seniors Stuck at Home, Caught between Loneliness and Fear of Covid-19," *The Straits Times*, 9 October 2021, [https://www.duke-nus.edu.sg/care/news-events/news/articles/articles/seniors-stuck-at-home-caught-between-loneliness-and-fear-of-covid-19-\(straits-times-premium\)](https://www.duke-nus.edu.sg/care/news-events/news/articles/articles/seniors-stuck-at-home-caught-between-loneliness-and-fear-of-covid-19-(straits-times-premium))

²³ We investigated community disquiet and distrust in the context of these technologies and measures. Six broad themes were identified in total. See: Alicia Wee and Mark Findlay, "AI and Data Use: Surveillance Technology and Community Disquiet in the Age of COVID-19," *CAIDG Research Paper*, (26 October 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3715993

²⁴ Jane Loo and Mark Findlay, "Rule of law, legitimacy and effective covid 19 related technologies: examining state

engaged in the deployment of AI surveillance and mass data sharing.²⁵ In contexts where social capital tolerated these intrusions for the sake of utility there is still evidence that trust in the institutions and processes of governance was damaged.²⁶

If equality in deployment and application of AI tech and the use of its data becomes ranked as an important principle influencing the machine/human interface, then this will be best achieved through the creation and maintenance of relationships of trust in communities.²⁷ Additionally, via the operation of these relationships trust can become a regulatory force ensuring the governance of AI by recognizing accountability to its recipients.

RoL, Inclusion and COVID Surveillance and Control Policy - Vulnerability and the Exacerbation of Discrimination

Rule of law (RoL) is recognized worldwide as a fundamental democratic discourse²⁸, and compliance with its principles is a claim for democratic legitimacy.²⁹ As such, the application of AI in both economic and political contexts (if that application is to be deemed to have a democratizing potential) can be fairly contrasted against rule of law language, if one searches for a relationship between AI and democratic values. Rule of law represents both normative and applied realms of democratic governance with its many principles have been interpreted from literalist/substantivist, to thick and encompassing impacts, and this spectrum of meaning adds to its political if not its instrumentalist utility.³⁰ There are also significant correlations between RoL principles and the ethics espoused as universally ascribed foundations for AI governance.³¹

authority, power, legitimacy and citizens trust during covid 19,” (forthcoming).

²⁵ The same cannot be said of recent and significant instances where community participation has been active in environmental protection spheres such as power conservation and waste management.

²⁶ Particularly in those instances where utility is undermined. See for example: Paul Mozur, Raymond Zhong and Aaron Krolik, “In Coronavirus Fight, China Gives Citizens a Color Code, With Red Flags,” *The New York Times*, 7 August 2020, <https://www.nytimes.com/2020/03/01/business/china-coronavirus-surveillance.html>; Helen Davidson, (2020).

²⁷ Li Min Ong and Mark Findlay, “A Realist’s Account of AI for SDGs: Power, Inequality and AI in Community,” in *Artificial Intelligence (AI) for the Sustainable Development Goals (SDGs): Socially Good AI, Artificial Intelligence for the Sustainable Development Goals (Tentative)*, ed. L. Floridi & F. Mazzi. (Springer Nature (Tentative)). Also see, <https://binghamcentre.biicl.org/projects/the-role-of-good-governance-and-the-rule-of-law-in-building-public-trust-in-data-driven-responses-to-public-health-emergencies>

²⁸ Sandra F. Joireman, “Colonization and the Rule of Law: Comparing the effectiveness of common law and civil law countries,” *Political Science Faculty Publications*, Vol. 64 (2004), <https://scholarship.richmond.edu/cgi/viewcontent.cgi?article=1077&context=polisci-faculty-publications>. See also: Jeremy Waldron, “The Rule of Law,” *Stanford Encyclopedia of Philosophy*, (22 June 2016), <https://plato.stanford.edu/entries/rule-of-law/>

²⁹ Martin Krygier, “The Rule of Law and State Legitimacy,” accessed on 29 March 2021, <https://oxford.university-pressscholarship.com/view/10.1093/oso/9780198825265.001.0001/oso-9780198825265-chapter-7>

³⁰ Danielle Watson, Ariel Yap, Nathan W. Pino and Jarrett Blaustein, “Problematizing the Rule of Law Agenda in the SDG Context,” *Crimrx*, (8 December 2020), <https://doi.org/10.21428/cb6ab371.ba393049>

³¹ Ellis Paterson and Gemma McNeil-Walsh, “Catching up with the Debate: Artificial Intelligence & the Rule of Law,” *Reconnect*, 14 October 2019, <https://reconnect-europe.eu/blog/aiandrol-patersonmccneilwalsh/>

In institutional and process forms, the RoL functions as a mechanism of constraint³² thereby ensuring that governance authority and powers exercised are legitimate. Legitimate democratic powers are endorsed by citizens and such endorsement is likely to be enhanced through a trust in authority that subscribes to rule of law.³³ As with the reservations expressed above about limiting governance considerations to state or market entities and functions, rule of law is at least a two-way dynamic. Whether its legitimating capacity is claimed through governance that is state-initiated, MNC-sponsored (as through ethics or corporate social responsibility), or is communitarian in its origins and operative responsibilities, the citizen is a critical endorsing agent. Further, rule of law as a trust generator is majoritarian – meaning that most citizens (and their communities) need to have trust in its functioning, or at least those in the community most affected by the exercise of the power in question. As such, while rule of law may sit comfortably with state-centered liberal democratic models of governance and their reliance on one-person-one-vote, its influence is not confined to that governance setting. If RoL is to have a governing impact over AI, then its application to private power, problematic as this may seem, needs to be extrapolated.

AI in the community that adheres to the principles of the rule of law will satisfy democratic values and norms, and operational communitarian governance will be seen (at the very least) to possess democratic/representative legitimacy provided that citizens (individually and collectively) trust AI's purposes and priorities through deployment.

Predominantly, communities are concerned by the dangers and risks AI poses within their midst, rather than embracing its benefits.³⁴ This reality, in part, is based on the misguided notion (triggered by science fiction images) of machines with moral agency and autonomous consciousness acting in an arbitrary fashion. Rule of law compliance (by AI in the exercise of power) tempers and curbs the arbitrary exercises of technology powers, which in turn enhances citizen trust, linking back to the importance of initiating trust within communities between human recipients and AI.³⁵

³² In tempering both state and non-state arbitrariness

³³ Powers that are legitimate are more likely to be endorsed by citizens leading on to greater compliance with State control measures, see: Jane Loo and Mark Findlay, "Rule of law, legitimacy and effective covid 19 related technologies: examining state authority, power, legitimacy and citizens trust during covid 19," (forthcoming).

³⁴ Michael Zimmer et al., "Public Opinion Research on Artificial Intelligence in Public Health Responses: Results of Focus Groups with Four Communities," *AAAS Center for Public Engagement with Science and Technology*, (10 August 2021), <https://www.aaas.org/sites/default/files/2021-09/AI%20in%20Public%20Health%20Focus%20Groups%20-%20Final%20Report%20with%20Appendix.pdf>;

Kelsey Piper, "The American public is already worried about AI catastrophe," *Vox*, 9 January 2019, <https://www.vox.com/future-perfect/2019/1/9/18174081/fhi-govai-ai-safety-american-public-worried-ai-catastrophe>

³⁵ Wong Zhang and Findlay, "Trust and Robotics: A Human-centric Pathway to Robots in Community," (forthcoming).

Communities are both inclusive and exclusionist in the forms of shared governance under which they operate. In Cotterrell's reading of community, its existence is determined by bonds of trust³⁶, and the assumption therefore, is that for AI to be an active partner in community it must participate in, and maintain trusted relationships. As with the question of where AI is, and is not, appropriately located in communities, there will always be occasions either where the human recipient will deny trust in AI technology or that technology will be unable contextually to create or continue trusted relationships. On inclusion – RoL actionability (in execution and institutional grounding terms) lends to overall assurance of positive citizen engagement by offering some enforcement options when abuse of power requires remedies.³⁷

Rule of law was said to be transported along with European colonization of the South World and the benefits for good governance were collateral.³⁸ Unfortunately, Westminster-style parliamentary democracy has not always taken root in positive governance environments, which have then tended to advantage traditional elites, foster institutional corruption, and enable North World trade exploitation.³⁹ Democratic normative frames have also suffered transition into vulnerable economies still impacted by the ravages of autocratic neo-colonial rule. If AI deployment accompanies relationships of technological dependency within vulnerable economies then rather than providing a democratic platform, AI will rather duplicate neo-colonial economic dominion.

Regarding the democratic value of equality – the principles of equality and non-discrimination that are foundational to the rule of law ensure that people are treated with dignity and respect. It would be logical to assume that the agents offering or denying dignity and respect, and therefore using data in a discriminatory fashion, could be AI-assisted technologies. Returning to COVID control policy, in many styles of governance authority, particularly in the South World where rule of law buffers are less robust, traditional discrimination based on race, gender wealth and power formed the backdrop for inequitable intrusions into citizen liberties.⁴⁰

Unfortunately, rule of law's rejection of arbitrary and abusive powers had

³⁶ Roger Cotterrell, "Law, Emotion and Affective Community," *Queen Mary School of Law Legal Studies Research Paper*, (15 July 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3212860

³⁷ Mark Findlay, "Ethics, Rule of Law and Pandemic Responses," *CAIDG Research Paper*, (30 July 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3661180

³⁸ Mark Findlay, (2017), Chapter 5.

³⁹ Mark Findlay and Si Wei Lim, *Regulatory Worlds: Cultural and Social Perspectives when North meets South* (Cheltenham: Edward Elgar, 2014).

⁴⁰ Shakir Mohamed, Marie-Therese Png and William Isaac, "Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence," *Philosophy & Technology*, Vol. 38 (July 2020): p. 659–684, <https://doi.org/10.1007/s13347-020-00405-8>

limited impact in many instances of COVID control intrusions, if the measure of legitimate authority was more about the utility of the powers' applications than more democratic normative concerns.⁴¹ Opposition to arbitrariness requires aligning the exercise of powers (and facilitating technologies) in accordance with RoL principles to prevent its uncontrolled, unpredictable, and disrespectful exercise. In turn, this will enhance values of inclusion and equality that are fundamental for democratic governance. On the other hand, technologies and powers that are illegitimately exercised, (tending to be disrespectful or neglectful of citizen inclusion, equality, and vulnerability) or excessively or abusively exceeded, will be received poorly and this will have a negative consequence on both the technology proposed and the legitimacy of any dominant authority form. Obviously, this reaction depends on the manner in which social capital has an independent voice.

The rule of law safeguards the value of inclusion because of the emphasis it places on the principle of legal certainty. Legal certainty is about eliminating the application of arbitrary unpredictable powers that make laws/measures/decisions taken inaccessible, intelligible, and unclear to those individuals affected. Compliance with the principle of legal certainty prevents the arbitrary exercise of unpredictable powers because it elevates subjects in a better position to know, predict, understand, comply and most importantly, *participate meaningfully* in decisions involving them. Occasions of indecisive authority, lack of coordination, and backflipping of decisions in today's pandemic context are examples of how the State (and other authority agencies) act in an unpredictable and legally uncertain manner. In these cases, citizens are excluded from participating since they are unclear on how to act and cannot organize their affairs in accordance with the relevant rules in force. This inability to participate meaningfully will impact their willingness to comply not simply because citizens feel excluded but also because their perception of legitimacy and trust in the expertise of government actions (and its control technology) falters.

Meaningful inclusion⁴² is also about accountability and transparency in the sense that when powers are exercised arbitrarily, there are avenues and means made available for subjects to challenge actions that interfere with their rights/interests. The emphasis on access to justice in RoL parlance encourages transparency and accountability from those who would exercise power through technology. This leads to the early identification and remedying of inconsistent laws and abuses in their name.

⁴¹ Jane Loo and Mark Findlay, "Rule of law, legitimacy and effective covid 19 related technologies: examining state authority, power, legitimacy and citizens trust during covid 19," (forthcoming).

⁴² Discussed in the context of inclusive self-regulation dependent on informed participation see Mark Findlay and Josephine Seah, "Data Imperialism: Disrupting Secondary Data in Platform Economies Through Participatory Regulation," (29 May 2020). *SMU Centre for AI & Data Governance Research Paper No. 2020/06*, Available at SSRN: <https://ssrn.com/abstract=3613562> or <http://dx.doi.org/10.2139/ssrn.3613562>

AI in Community – Governance and Legitimacy

In earlier work,⁴³ we proposed that *AI in community* can function as a governance framework for AI systems, but have yet to sufficiently develop the stages in its causality. So, what follows can be treated as thoughts in progress. Community-minded AI design and deployment can initiate relationships of trust within community recipients, but more importantly, democratic values of inclusion and equality, which underpin our idea of AI in community, will provide the legitimacy platform critical for citizen endorsement in modern democratic (equitable/inclusive) governance and its technologies. In our work on disquiet arising from the exercise of AI-assisted surveillance in pandemic control, we initially proposed an absence of citizen inclusion in the policy formulation and application as interfering with trust and efficacy.⁴⁴ That view was later refined to suggest that an absence of informed and participatory inclusion in various stages of policy development and deployment would create distrust in other elements of authority required for the legitimacy of the powers exercised.⁴⁵

At least in those styles of authority where citizen/community trust is a necessary or even powerful legitimator,⁴⁶ RoL provides a useful frame of analysis for the democratic governance of emerging technologies since close adherence to its values will enable and initiate citizens' trust. The initiation and maintenance of such trust foundations is important in societies seeking a model of AI governance that is inclusive and located *within* and *for* the community. More importantly, adherence to its principles will also operate to promote the legitimacy of the technology, which in turn legitimizes the democratic powers and authority of the State (and other relevant governance authorities). The converse is also true – legitimate authority and powers will legitimize and endorse the technology in use.

Moving from the undeniable relationship between community trust and legitimate authority is the more pinpoint focus of governing the exercise of often intrusive AI-assisted powers. As our work on COVID surveillance establishes, there is little doubt that community apprehension about AI, in large part as suggested above, revolved around arbitrary power. To overcome this concern, standardisers and the engineering community look for endorsements of safety and robustness through

⁴³ Findlay and Wong, "Trust and Regulation".

⁴⁴ Wee and Findlay, "AI and Data Use: Surveillance Technology and Community Disquiet in the Age of COVID-19".

⁴⁵ Jane Loo and Mark Findlay, "Rule of law, legitimacy and effective covid 19 related technologies: examining state authority, power, legitimacy and citizens trust during covid 19," (forthcoming); Findlay and Wong, "Trust and Regulation,".

⁴⁶ Jane Loo and Mark Findlay, "Rule of law, legitimacy and effective covid 19 related technologies: examining state authority, power, legitimacy and citizens trust during covid 19," (forthcoming).

mechanical risk minimization.⁴⁷ Extending this search for satisfying risk into the community, and working with the importance of trust between AI and human recipients, requires an a priori appreciation that compliance with standards or safety ratings may not counter adverse or irrational popular wisdom.

However, like ethics as an AI governance frame, the democratic values enunciated in rule of law and the SDGs, requiring certain forms of compliance will not be satisfactory if these are left in the self-regulatory domain.⁴⁸ Recipient citizens and their communities have a vital role to play not only in trusting AI, but in first knowing, understanding and making accountable the achievement of principles and values on which trust is based. Communities can provide the ‘quality control’ referent for AI governance, and fortuitously AI technology and responsible access can facilitate this responsibility. Time does not allow for a developed justification of this assertion, but in the same way AI can deny, or bias access to information through algorithmic exclusion, algorithms can red-flag biased interpretations, open up data access through information looping and provide broad and basic frameworks for citizen/community engagement with the knowledge on which their identities rest.⁴⁹ In such ways, AI and data usage, if embedded in empathetic community relationships, can offer mechanisms and fail-safes that keep the authors of authority and the exercisers of power, true to their democratic discourse.

By recognizing individual vulnerability and eliminating discrimination, the democratic values of equality and inclusion are more likely to be realized. For instance, equality is consistently highlighted as a core element of the RoL, and it is directly relevant and even transplantable in this context. Equality is about ensuring that authority governance modes and the power they exercise (in public and private spheres through technology) must not only refrain from discriminating against certain groups/individuals but must also seek to protect these groups against discrimination based on certain protected characteristics. Equality before the law should not be proclaimed when, as the context of this pandemic and its increasingly stringent control measures, authorities are given preferential treatment by virtue of their domination of technology and data access to disregard equality under conventional law.⁵⁰

⁴⁷ Zhang, Wong and Findlay, “Trust and Robotics: A Human-centric Pathway to Robots in Community,” (forthcoming); Megan Nichols, “Safety Is a Priority When Designing Collaborative Robots,” *Robotshop*, 20 March 2019, <https://www.robotshop.com/community/blog/show/safety-is-a-priority-when-designing-collaborative-robots>

⁴⁸ See Findlay & Seah, “An Ecosystem Approach to Ethical AI and Data Use: Experimental reflections,” *CAIDG Research Paper*, (13 May 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3597912

⁴⁹ Mark Findlay and Li Min Ong, “Reflection on Wise Cities and AI in Community: Sustainable Life Spaces and Kampung Storytelling,” *ASEAN Law Research Network e-Paper Series*, Vol. 1 (2022) (Forthcoming), (Sustainable Development and Commerce in ASEAN Cities Conference (12 Nov 2021)).

⁵⁰ This is not to suggest that I believe laws are equal in their creation, intentions or applications, beyond normative exhortation – see Mark Findlay, (2017), Chapter 5.

Where the discussion of AI in community is presently at its weakest, impacting on any supposition about AI being made complicit in ensuring good communitarian governance, then there remains the need:

- to develop a more complex, layered and individualized understanding of the AI/human relationship and what makes it trusted
- to better appreciate the factors which incentivize or de-incentivize communities to embrace AI beyond shared self-interest
- to materialize the forces that will influence AI sponsors/designers and customers so as to accept as a significant driver for AI deployment community benefit and prioritization outside the market contest and,
- to position AI so that it is more than some patient/impotent recipient of community freewill and to entertain a more proactive (if not autonomous) role for AI in social bonding.

However, even at the current stage of thinking, the causal chain for AI and democratic values might look something like this:

AI in community (based on relationships of trust) to enunciation/compliance with democratic values at design/deployment to recognition in community that AI/data use represents these values. Then, AI/data use is legitimated the AI/data use provides the technology for communities to audit the use by governance/authority of technology/data power community thereby becomes the ‘governor’ of democratic values in AI/data use and their application through governance/authority.

Conclusion

We should be mindful, when looking into how AI and democratic values can or should intersect, not to reduce the analysis to a tick-box exercise or some checklist of generalized and abstract principles. Through identifying equality within the SDGs and inclusivity in rule of law as indicia of the democratic values of equality and inclusivity, it is essential to see the governance of AI (and AI’s potential to advance human-centric, communitarian governance best practice across its ecosystem) as a *teleological* endeavour. For instance, any interest in RoL manifest in AI design and deployment imperatives requires a consideration of function as well as value. How can rule of law curb the arbitrary exercises of power via AI technology and data usage, and how can advancing the SDGs offer more sustainable communities as foundations for governance against arbitrary or abusive uses of technology and data?

The case study of AI surveillance discrimination against vulnerable groups gives a snapshot of how arbitrariness is often linked to inequality and an exclusion and the exploitation of powerlessness. That said, meaningful guidance can still be found in an *anatomical* account of the rule of law and the sustainable development goal aspirations. At the very least, normative confirmation provides some action-oriented direction for how arbitrariness can be tampered – including what sort of formal/procedural characteristics need to be safeguarded and what communitarian governance frames should be put in place for that purpose. Conceding that the arbitrary exercise of autonomous power is high on the list of why communities do not trust AI (and its authority sponsors), it is a practical imperative to include AI in the achievement of democratic values that run counter to arbitrary power, and in which AI/data usage can be positive governance moderators.