Mitigating Undesirable and Unintended (but mostly Foreseeable) Consequences during Decision-Making: Applying “Wicked” Problem-Solving Approaches to Public Law and Public Policy Problems

Sandeep Verma

Abstract
This short law/policy brief examines important cases for potential application of “wicked” problem-solving approaches to complex policy and legal problems; and has been especially written as background reading material for in-service training of mid-career IAS officers at LBSNAA, Mussoorie, India.

Introduction
As recently as on the 24th of July this year, the Supreme Court of India needed to intervene in the case of a well-intentioned bail condition imposed by the Delhi High Court: a requirement for an accused to drop his Google Map pin location regularly to an Investigating Officer (IO) throughout the period of his release on bail. The legal question that presented itself to the Supreme court, however, arose as to whether such a condition amounts to a requirement for continuous surveillance; and consequently, whether a bail condition such as this would stand in the face of Article 21 constitutional rights in India on the protection of life and personal liberty of her citizens? Forthcoming deliberations by the Supreme Court on the issue will therefore need to grapple with the right to privacy recognised as a fundamental right by the Supreme Court itself, perhaps even invoking of the Doctrine of Proportionality that usually gets attracted in cases of judicial oversight of State actions, namely, that an administrative measure to address a situation must not be more drastic than is necessary for attaining the desired result.

On further unpacking, such a bail condition could lead to many more unintended practical consequences; for instance: whether at some future point of time, all accused persons (including all IOs) in India, by logical implication, need to necessarily start using digital devices compatible with Google Maps, perhaps to the point of discontinuing the use of MapMyIndia, (Apple) Maps and other competing web service applications, in favour of a legal insistence on using only one specific software application/service? And whether such court-mandated (“forced”) user consent (though online agreement to standardised “terms of service”) that Google Maps and other similar software/service applications necessarily require at the time of their installation on a digital device—consent that allows Google Maps to


5 See, e.g., How Google uses location information, Google, available online https://policies.google.com/technologies/location-data?hl=en; see, also, Foreign Intelligence Surveillance Act.
store and share user locations for marketing and promotional purposes; consent that allows for surveillance and recall both by national and by foreign governments for reasons well beyond tagging/tracking—could ever be treated as voluntary and informed consent, especially when contrasted with multiple instances where the Supreme Court has itself insisted on voluntary and informed consent as a necessary piece of the right to privacy puzzle in the digital domain?

In all fairness, electronic tagging and surveillance are not new technologies; and have been used in more than one situation by more than one legal jurisdiction elsewhere: for instance, the United States court system can require ankle bracelets (clamps) as a condition for release on bail/parole to monitor undesirable movement of such persons; and parts of the United Kingdom, through so-called sobriety tags, sometimes rely upon the use of electronic sensors that can sense alcohol content in a person’s sweat to alert law enforcement authorities in the case of repeated alcoholic offenders. However, the use of electronic tagging in most developed country jurisdictions appears to be relatively narrow and specific, relying upon specialised hardware and software that only communicates with prison/law enforcement authorities, and usually does not therefore lead to serious derogation of an individual’s privacy beyond the bare minimum that may be absolutely necessary to achieve certain restrictions that are fundamental to the essential purposes of granting bail or parole, or to the broader issue of possible prevention of further criminal offences by such persons.

In sum, it will be interesting to see how litigation on the subject now unfolds before the Supreme Court; since both de facto and de jure, the direction by the Delhi High court effectively appears to require a person asking for bail, to necessarily share his location with Google/Alphabet, and only through that platform with an IO, rather than directly and only communicating with an IO as was actually intended by the Delhi High Court.

“Wicked” Policy Problems and The Doctrine of “Absurdity”


(FISA) and Section 702, FBI, available online https://www.fbi.gov/investigate/how-we-investigate/intelligence/foreign-intelligence-surveillance-act-fisa-and-section-702#:~:text=FISA%20Section%20702%20is%20an,takes%20an%20act%20to%20reauthorize%20it.


There are, however, numerous exception reports that indicate serious threats to human rights because of such
partisan advertising by incumbent governments— are all inherently “wicked” problems. Here, “wicked” is used as meaning persistent and non-tame, i.e., not amenable to simple or simplistic solutions, but definitely not wicked as meaning “evil” in any sense of the word. Further, wicked problems are generally not amenable to a “stopping rule”, i.e., any attempt to solve such a problem usually leads to multiple unintended consequences, which in turn require many more attempts at consequential problem-solving, thus converting complex problem-solving into a never-ending exercise rather than a single-shot task. Last, but not the least, solution providers attempting to address such complex problems (problem-solvers such as political executives, legislatures, judicial institutions, and civil servants) need to always come out as “correct” and can never be “wrong”, i.e., that they are always politically, legally, administratively and even optically liable for the consequences of the solutions that they generate, because both the effects and the after-effects of their solutions can matter a great deal to the people and the institutions that are touched by such policy solutions.

Some related doctrines in legal theory that could be of consequence to solving “wicked” public law problems within this context, could then be the Absurdity Doctrine and the Doctrine of Harmonious Construction. The former allows judicial/ legal institutions to disregard plain meaning (or well-meant intentions) of statutes or legally enforceable directions in cases where the (unintended) outcomes turn out to be plainly ridiculous and/or absurd; while the latter doctrine attempts to arrive at legally consistent and harmonised outcomes, even if the process requires the rejection of any conflicting words, language or intentions amongst different statutes or legally enforceable directions. Simple applications of these doctrines within legal domains are resolving drafting mistakes through the recognition of Scrivener’s Errors (“scriveners” meaning scribes as being a set of professionals who could read and write during early times)—also sometimes referred to as Vitium Clerici, while more advanced applications of these twin doctrines relate to statutory interpretation in more complex cases, such as were a statute to make it illegal to “draw” blood in the streets, would its terms apply to a doctor performing an emergency surgery on the road? Or whether a prisoner violates a law against prison escape, if he or she breaks out of a prison building or an escort vehicle that is on fire?

13 See, e.g., Head, B.W. (2008), Wicked Problems in Public Policy, The University of Queensland, copy available with Author.
19 Meaning the Mistake of a Clerk, Black’s Law Dictionary, available online https://thelawdictionary.org/vitium-clerici/.
20 Gold, supra n.18.
Recognising “Wicked” Problems in Law and in Public Policy

Historically, the world of law-making and statutory interpretation appears to have been much ahead of public policy discourses in terms of either explicitly or implicitly recognising the “wickedness” of legal problems: for instance, while the law may bar one person from taking the life of another person, the former is allowed to claim the right to self-defense if threat is imminent as a valid exception to the “thou-shalt-not-commit-murder” rule, albeit with a consequential shift of the onus of proof if such an exception were to be claimed. This constant provisos and exception-making, together with continuous shifting of the onus of proof, is perhaps merely a simple and early example of recognition of most real-life legal situations as inherently “wicked”.

Modern policy and legal issues have now become far more complex and intertwined than ever; and they therefore create an immense scope for adoption of highly creative and effective approaches if only “wicked” policy concepts were to be suitably factored-in while attempting solutions to such complex real-world problems.

It was this recognition—the imperative for adoption of creative inter-disciplinary approaches—that seems to have prompted India’s Prime Minister—perhaps the most decisive and hands-on ever—to unequivocally emphasise on the need for capacity-building and ending silos while addressing the National Training Conclave in June earlier this year. India’s Home Minister had closely followed this dictum in a recent public address when he emphasised on the need for use of simple and clear words in legislative drafting.

Earlier, sometime in 2018, Justice D. Y. Chandrachud, now the Chief Justice of India, while speaking on the “Narrative of Justice”, had spoken about judges being artists in their own right: shaping legal discourses just as novelists shape the narrative of their characters. As India’s most incisive and insightful Chief Justice leading a Supreme Court consisting of some of the sharpest legal brains ever, it was only appropriate and expected of him to conclude his address with the thought that the purpose of a good storyteller is not to tell us how and what to think, but rather to lead us, and eventually to figure out on our own, the right questions to think about.

Confronting and addressing wicked policy and legal problems is something that both India’s Prime Minister and the Chief Justice of India have thus directly and indirectly emphasised upon—the fundamental need for adopting an unending “what-if” and “if-so” approaches focused on asking the right questions, while always attempting flexible and constantly-evolving solutions to such questions—approaches that can perhaps prove to be more effective at delivering efficient solutions on a real-time basis,

---

22 PM inaugurates first-ever National Training Conclave, PMO (11 June 2023), available online https://www.pmindia.gov.in/en/news_updates/pm
 inaugurates-first-ever-national-training-conclave/#:~:text=Prime%20Minister%20Shri%20Narendra
 Modi%2C%20India%20needs%20a
 National%20Policy%20for%20the
 digital%20age%2C%2C%20say%2C%20addressing%20the%20National%20Training%20Conclave%20in%20June%20earlier%20this%20year.
 23 India’s Home Minister had closely followed this dictum in a recent public address when he emphasised on the need for use of simple and clear words in legislative drafting.
responding very fast, proactively and with foresight, at pace with complex policy and legal problems unfolding and interacting with each other in immensely complicated real-world domains.

**Greater Uniformity through “Wicked” Problem-Solving?**

A typical issue with ensuring **uniform implementation of complex solutions in large organisations**, such as state and federal governments, is ensuring **uniformity of approach, commonality of application and due process, and achievement of similar outcomes amongst multiple units of the government**, each of which normally could come with **wildly varying baggage like grossly unequal administrative histories, uneven attitudes and understanding of policy issues, and differentiated capacities and commitment in engaging with solutions**. Higher courts in India have been facing a similar lack of uniformity in achieving important human rights outcomes, for instance during the release of arrested persons on bail, where each district or subordinate court tends to apply both the letter of the law, as well as court-settled law, in a manner that can appear “too subjective” and even “contradictory” to most public stakeholders and observers. Adoption of “wicked” approaches can perhaps provide better outcomes, as they can employ smarter techniques such as flipping the onus just like constant shifting of the burden of proof or leading of evidence; and can therefore potentially achieve much more uniform results by treating practical legal problems as inherently wicked, avoiding in the process pitfalls of classical, traditional, and “tame” solutions.

**Distinguishing “Wicked” Solutions from the “Perverse”**

While attempting to understand “wicked” problem-solving, it may be necessary to distinguish it from “perverse” problem-solving; the latter case being one where latent intent and/or administrative procedures being adopted for programme rollout (sometimes by **stealth**') may be contrary to genuine policy or legal requirements. Perverse problem solving, given that one of its important objectives can usually be **outsmarting the vary stakeholders it claims to serve**, usually leads to several undesirable and even adverse consequences. This is especially so when solutions are not well-thought out, or when various parts of stakeholders in the policy solution are often working with their own stealthy intentions, rather than an integrated whole working towards a common objective.

“Wicked” problem solving is intrinsically **creative, persistent, and comprehensive**, in sharp and complete contrast to “perverse” problem-solving; the latter usually employs fundamentally “evil” (i.e., improper) approaches/mechanisms while attempting solutions to complex public problems.

An instance of perverse approaches in solving complex policy problems is the pre-2014 enrolment methodology adopted for encouraging **Aadhaar-holders** during UIDAI’s initial years.

---

25 See, e.g., Supreme Court’s contradictory verdicts reinforce the need for a Bail Act, Indian Express (17 August 2022), available online: https://indianexpress.com/article/opinion/columns/uma-gautam-writes-supreme-courts-contradictory-verdicts-need-bail-act-8094260/.

when the UIDAI ecosystem attempted to deny digital public services to non-Aadhaar holders all the while claiming that Aadhaar enrolment was voluntary—a highly improper and misleading approach—that was subsequently discarded both by the Government of India when it rolled out comprehensive legislation governing UIDAI in 2016, as well as by India’s Supreme Court through its 2018 decision upholding the constitutional validity of the UIDAI Act.

The current solution for fast-tracking digiyatra enrolment being rolled out by the PPP concessionaire at the Delhi Airport could be equally aggressive and “perverse”, and may come up for sharp criticism both by the Government of India and by India’s higher courts in the near future, given that much like pre-2014 Aadhaar enrolments, the overarching attempt appears to be one to coax (force?) more and more airport users to enroll themselves using a latent threat of denial of airport services. The solution under implementation enables faster entry into terminal building for digiyatra subscribers through dedicated entry gates versus delayed entry or potential denial of flight boarding opportunities for non-subscribers (because of queues and congestion at “non-digi yatra gates), thus translating into an inherent, and threat of missing one’s flight merely for valuing and upholding one’s privacy rights.

An even more problematic aspect could be the unnecessarily fast-track registration of airport users by the PPP concessionaire using inadequately trained handlers engaged at the airport entry gates, in its eagerness to enroll the highest numbers within the shortest possible timelines. The way this registration actually works in practice, and why it could become problematic from legal perspectives, is that passengers eager to catch their flights and desirous of entering the airport building are made to register by such handlers before face-scanning machines “in a huff” without any meaningful information or explanation the nature of user consent against such “instantaneous” registration: procedures that could fundamentally threaten essential requirements for obtaining voluntary and informed consent solidly set forth by India’s Supreme Court repeatedly in a large number of cases.

This is especially so given the background that the scheme actually operates under the aegis of a private corporate entity (a body corporate) with a privacy policy that leaves important issues either substantially

---


under- or unaddressed\textsuperscript{34}; and is inherently prone to virtually unconstrained data-sharing without user intimation, let alone user consent. The most interesting parts, of course, are that there is no opt-out from the scheme; and that the privacy policy can be altered by the private entity without user information, let alone user consent, rendering user consent as practically meaningless.\textsuperscript{35}

\textbf{Complex Problem-Solving: “Tame” vs “Wicked” Approaches}

A typical problem faced with timely progression of public projects has been the high incidence of delayed payments by procuring officials to prime contractors: a problem that policymakers have traditionally approached as a “tame” problem, sometimes erroneously assuming complete innocence on part of procuring officials and on part of the procurement system itself.\textsuperscript{36}

In contrast, actual reasons for delay in payment of dues can be both genuine and non-genuine, perhaps even vitious in some jurisdictions: a procurement system could encourage sanctioning more projects that can be financially sustained, if only to make “good” impressions on voters and public stakeholders towards the onset of elections. Within a general cash-crunch situation, procurement officials could genuinely be unable to make payments due on account of high monetary liabilities spread over a large number of financially unsustainable public projects; and as if to rub salt into one’s wounds, unscrupulous procurement officials could also (ab)use delayed payments as a conscious strategy to divert funds to favoured contractors or even discourage new entrants from bidding, displaying a preference for entrenched and friendly contractor engagement in future cases—a clear case of what can only be termed as futuristic (pun intended) bid-rigging.\textsuperscript{37}

Traditional solutions treat this payment delay as a “tame” problem, advocating the adoption of equally tame approaches such as setting financial limits on project sanction against allocated budgets for a given financial year; increased contract monitoring and better financial performance management; and dispatching regular reminders and threats of disciplinary action against erring procurement officials. Most states in India have historically adopted such tame approaches, with little or no impact on addressing or mitigating the basic problem as such.

A “wicked” problem-solving approach on other hand, treats this situation from an entirely different perspective; and both the Government of India (in October 2021)\textsuperscript{38} and the State Government of Haryana (starting even earlier in late 2020/ early 2021)\textsuperscript{39},

\begin{thebibliography}{99}
\bibitem{34} See, e.g., Jain, A. (2023), Planning to use Digiyatra?, Internet Freedom Foundation, available online https://internetfreedom.in/planning-to-use-digiyatra/.
\bibitem{35} Clause 17 of Privacy Policy, DVF, available online https://digiyatrafoundation.com/privacy-policy.
\bibitem{37} Ibid.
\bibitem{39} The State Government of Haryana took the bull by its horns, in a manner-of-speaking, by mandating interest liability for delayed payments by procuring officials in late 2020/ early 2021 for pending bills of media publications. This was quickly followed in 2021 itself for the case of pending farmers’ dues in mandis (agricultural trading markets) for delayed payments against procurement of grains etc. (Haryana farmers to get 9% interest on delayed payments, says CM Khattar, https://www.livemint.com/news/india/haryana-farmers-...
have adopted radical, out-of-the-box solutions by permitting and enforcing nominal interests on delayed payments as part of agreed contract terms and conditions.

While such a solution, *prima facie*, may seem to be adverse or inimical to conserving scarce financial resources, even to the point of favouring contractors over the *public fisc*, it is easy to foresee how such a solution operates in practise to both *stem the problem*, and *stem the origin of the problem* itself. Mandating interest payments has a secondary “wicked” effect of *automatically* holding a procuring official accountable and liable for unnecessary payment delays; and allows for automatic *inter-se* testing of procuring officials’ efficiency and integrity by making possible a comparison of their “percentage of delayed payments” as a fraction of total procurement payments made by each procuring official.

This interest “payment burden”-based solution, in turn, *automatically* reduces funds available for sanctioning future projects in an undisciplined procurement system, forcing policy managers to begin preferring financially sustainable announcements. Thus, allowing interest payments works more like a “wicked” solution rather than a “tame” one. It essentially forces higher-level decision-makers to limit themselves to a given number of projects every year, rather than continuing to prefer rather profligate announcement of projects that remain incomplete and delayed for long periods of time, while creating significant liabilities for delayed payments at the same time, thus reducing the scope for fiscal profligacy even further—something akin to an *automated, self-policing* mechanism.

**Wicked Policy Problems: Other Real-Life Applications**

An understanding of Wicked Policy Problems could be of great relevance not only to India’s civil servants, but also to her legal and judicial professions, if the two sides are not to keep conflicting, either internally or amongst each other, as more and more complex and intertwined policy and legal solutions are attempted in rapidly developing countries such as in India.

The Defence Procurement Procedure of 2005/2006 vintage, for instance, has carried within it a clause that rather counter-intuitively *discriminates against Indian bidders* participating in “Buy (Global)” category of defence acquisitions, by insisting on an upfront and direct indigenous content in technical offerings by Indian bidders, as compared to relatively simpler, indirect, and longer-term obligations on foreign vendors through offsets.40 The “wicked” problem, in this context, of course was, “what” and “how to” design technical requirements for Indian bidders that could end, or at least limit, this discrimination against Indian bidders vis-à-vis foreign vendors participating in “Buy (Global)” contracts.

Taking inspiration from the Prime Minister’s evocation of *Atmanirbharta* in

---

Defence manufacturing\textsuperscript{41}, policy solutions have now been implemented by India’s Ministry of Defence (MoD) from August 2020 onwards by regularly publishing and expanding the lists of items that can be procured only from domestic vendors\textsuperscript{42}, as well as implementation of IDEX initiatives of 2018/2020 that address this discrimination through tangential mechanisms such as R&D funding support for domestic stakeholders interested in defence manufacturing in India.\textsuperscript{43}

In 2016, India’s MoD also adopted new blacklisting regulations that are more flexible, more practical, and much more nuanced,\textsuperscript{44} explicitly recognising blacklisting of vendors as an inherently wicked policy problem. In the process, MoD addressed several deficiencies with the earlier, pre-2014 system of blacklisting that had been more ad-hoc and more focused on optics, often leading to blacklisting a supplier for errant behaviour first, and only later discovering and managing MoD’s own high degree of dependence on some such blacklisted suppliers for maintaining essential spares and maintenance of its weapon systems and platforms.

An example of “tame” legislative drafting, in the context of a lack of proper appreciation of “wicked” policy-making concepts, was the draft Prevention of Bribery of Foreign Public Officials and Officials of Public International Organisations Bill published in 2011: one that omitted to allow for exceptions to Indian stakeholders in its text that are otherwise available to foreign players under legal regimes such as the United States’ Foreign Corrupt Practices Act and the United Kingdom’s Anti Bribery Act.\textsuperscript{45} Primarily because of a new political leadership that has been more focused on content rather than on optics, a process for correcting these drafting mistakes made in 2011 was quickly initiated in 2015 soon after a change in Government, when the new Law Minister took up the issue with the Law Commission of India (LCI)—a process that has eventually led to many significant improvements being suggested by the LCI in the drafted legislation in its comprehensive report on the subject.\textsuperscript{46}

As another instance, the draft Rajasthan Social Accountability Bill of 2019, contained both internally- and externally conflicted provisions that were in stark contradiction to well-established legal principles such as double jeopardy\textsuperscript{47}, simply because the draft legislation looked at social accountability as a tame rather than a wicked problem. The draft legislation failed to properly recognise that if strict legal requirements are imposed on public servants placing severely short and artificial timelines on their routine decision-making, under the threat of

\textsuperscript{42} See, e.g., Kumar, M. (2022), Defence Procurement: Negative Lists with Positive Implications, IDSA, available online https://idsa.in/idsacomments/Defence-Procurement-mkumar-300922#.—text=The%20third%20negative%20list%20contains%20vehicles%20and%20other%20weapons%20systems.
\textsuperscript{44} See, e.g., Verma, S. (2018), Land Ahoy!, IDSA, available online https://www.idsa.in/issuebrief/debarment—text=In%202016%2C%20India%20allocated%20USD%2011%20billion%20under%20the%20IDEX%20initiative%20that%20aims%20to%20localise%20r%20d%20and%20s%20technologies%20for%20defence%20procurement%20in%20India.
their incurring financial penalties and undergoing imprisonment; then they are more likely to take bad and even illegal decisions only to meet such absurd timeliness requirements, rather than taking robust and nuanced policy decisions as they otherwise should. Many mistakes with the originally published draft are now being corrected in the State through the setting up of a multi-stakeholder drafting committee, as well as a committee of practitioners to review and improve upon subsequent drafts of this ambitious policy attempt.

Yet another instance of wicked problem-solving, pioneering work has been undertaken in India in law enforcement and anti-corruption, borrowing select concepts from “wicked” problem approaches. The present Union Government initiated several measures, starting with the 2018 amendments to the Prevention of Corruption Act, in the backdrop of rising fears of post-facto rethink and potential criminal proceedings against an otherwise well-intentioned bureaucracy. Prior sanction by the relevant appointing authority has now been mandatory before launching investigations under this Act, save for two exceptions. These new efforts mirror some earlier legislative approaches: a “prior approval”-based framework at very high levels in state and Union governments was made mandatory for phone-tapping/ interception; and the relevant Home Secretary alone can authorise such interception in India under the legal framework evolved by the Union Government under guidance from its Supreme Court. For cases under India’s National Security Act (NSA), again, there is a mandatory requirement of approval by the Home Department and by an independent Board consisting of eminent High Court judges, before a person can be incarcerated for long periods of time under this Act.

Wicked Problem-Solving: Some Interim Lessons and Tentative Conclusions

When viewed against the backdrop of multiple solutions that have been successfully implemented by the Union Government during the last eight years; it stands to reason that “wicked” problem-solving can be much more effective at addressing the problem of perverse incentives and unintended consequences in important areas of public policy/ decision-making.

One example that is perhaps ripe for application of a “wicked” approach, is regarding the offence of sedition—the most perverse and perhaps the grassest of all criminal offences—one which goes well beyond terrorism and threats to national security, to threatening and destroying the very existence of the State itself. To tackle the mushrooming of sedition-related complaints, many times even initiated by private actors with little (or no) understanding of sedition either as a political or as a legal construct, as well as by over-enthusiastic law-enforcement agencies more focused on maintaining public order, “wicked” problem-based solutions can perhaps be found that are

49 See, e.g., Manoj, N. (2020), Phone Tapping Laws in India, Journal for Law Students and Researchers, available online
better at balancing law enforcement institutions’ proclivity and social preferences for adoption of relatively aggressive approaches with human rights compliance requirements of a democratic, rule-of-law framework.

While the annual number of new sedition-related cases remains manageable, it is thus possible to imagine making it mandatory for registration of FIRs and launching of investigation in cases of sedition to obtain prior approval of the State/Union Home Secretary, if a routine matter such as investigation into a corruption offence or phone-tapping of an individual require prior approval of an Appointing Authority and the State/Union Home Secretary respectively, thus extending the same logic to investigation to the graver offence of sedition. Even more complex variants based on wicked policymaking can then further be attempted, by mandating an investigation supervised by an ADGP-rank officer (Additional Director General of Police) for the offence of sedition; and the possibility of an award of monetary compensation or public acknowledgement of “mistakes” for “unnecessary” incarceration—blending nudge with wicked policy—in cases where investigations initiated after obtaining prior approvals of the Home Department do not result in framing of a successful charge-sheet.

As detailed earlier, a “wicked” problem-solving approach is already, albeit silently, in action in India in recent times, with highly impactful and useful results in improving public services’ delivery. Discarding traditional, classical, and relatively inefficient “tame” approaches, in favour of adopting more flexible, robust, efficient, and “wicked” approaches to problem-solving in complex public policy and public law domains, may well now need to be given serious thought and due consideration, particularly given the clarion call by our Prime Minister for ending of silos and development of multi-stakeholder, multi-perspective, and teamwork-oriented capacity-building of India’s civil servants.

Electronic copy available at: https://ssrn.com/abstract=4525953