

# Nurturing AI's Potential: The Need for a Soft Regulatory Approach in India

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By Editorial Team



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In the pilot episode of the celebrated television show *Breaking Bad*, the protagonist Walter White explains chemistry to his high school students. “... *Well technically, chemistry is the study of matter. But I prefer to see it as the study of change.*” The technical definition is not wrong. But White’s take on chemistry’s definition adds a fresh layer of meaning, a broader context to it.

Today, I must borrow these words from the show to define AI regulation. “Well technically, AI regulation is the regulation of AI. But I prefer to see it as the regulation of change.” Change in society. Change in culture. But most importantly, constant change in the technology itself.

In this post, I first look at how AI has evolved over the years, and how the evolution affects the possibility of regulating AI. Secondly, I focus specifically on India and make a case for regulating AI through a Center for Ethics and Technology (CET). I support my arguments by noting that technological changes have pushed the very definition of ‘regulation’ to evolve, towards ‘soft regulation’, which promises to be far more responsive and fit for purpose. I conclude by suggesting how CET is well-positioned to provide such a soft regulatory response.

## Challenges with AI regulation

The dynamism of AI and *because of* AI make its regulation challenging. Let’s understand these challenges as falling in two categories. The first category concerns change in AI. The second concerns the existing regulatory responses, and their weaknesses,

particularly in the face of such evolution.

### Scope of subject matter

The story of the evolution of AI helps us understand two things. First, the very subject matter of AI has undergone change over the years. Second, the pace of change has accelerated.

Over the course of its evolution, the field of AI has fostered dynamic conceptions of AI, varying across researchers and across time. At least three overlapping generations can be detected. The first was the generation of 'expert systems'. These AI were little different from regular computer software, except that they were trained to emulate the expertise of a human in a particular field, by aspiring to model their knowledge as well as the process of thinking. They consisted of 'symbolic' (human understandable) reasoning propositions. 'If these are the symptoms, then that must be the disease' – a medical expert system would tell you. 'If these are your receipts, then you must pay that much tax' would be the decision of a financial expert system, and so on.[1]

This generation was upended by the second generation of 'sub-symbolic' AI systems – machine learning. Banking on troves of data, these systems made no effort to emulate the reasoning of a human, but simply learnt to make decisions about a specific set of questions by using a special set of algorithms called artificial neural networks: Are there humans in these pictures? Which video on this site would make people watch more? Are there cancer cells in this image? The answers would be based on reasoning incomprehensible to humans and may have accuracy issues, but with increasing amounts of data and iterative engineering of the algorithms, the systems could get more than just fairly good.[2] This generation pushed AI towards extensive and largely successful applications.

But if the global community thought that AI had plateaued[3], it had clearly underestimated how quickly a third generation would come and what its impact would be. While talks of 'transformer models' were around since 2017,[4] they realized their full ontological potential with the release of 'generative AI' (as against 'discriminative AI' of the second generation) such as Dall.E 2, but definitively with the release of ChatGPT, which has famously become the fastest growing online-platform ever.[5]

It must also be noted that it took close to five decades to successfully bring in the second generation, but a decade (by conservative estimates) for the third generation to arrive. Are we done now? Should AI regulation focus on these three generations now? What happens when a regulation is finalized today, and very soon, a new generation is out, with entirely different characteristics and impacts?

This is not hypothetical and indeed came to the fore with the third generation. European Union released its draft rules on AI regulation in April 2021 (the "AI Act"). It had divided AI into tiers based on the risks that it posed. Unacceptable risk (prohibited), High risk (heavily regulated), low risks (transparency obligations) and minimal risk (voluntary codes of conduct) were the categories. But the risk to what? Primarily for the safety and

fundamental rights of the EU citizens. If this was the normative goal, this approach made great sense in response to discriminative AI, the most prominent category at the time of the drafting of the Act. However, it had reached dangerously close to being redundant in the face of the risks posed by generative AI.[6] Applications such as ChatGPT do not lead to any indisputable violation of safety and human rights but pose risks that are a lot more latent, that impact not the fundamental rights of any individual, but the overarching fabric of the society.

Consider Zittrain, who presents a possibility where a combination of (automated) bots riding on ChatGPTs capability spread over the internet and through highly realistic and friendly personas, weave themselves into the discourse over the internet. Slowly but surely, through innocuous conversations and growing friendships, they start ‘hijacking’ the discourse, and a new era of disinformation and propaganda is unleashed at the behest of their creators.[7] While all this happened, ChatGPT would remain (as per the original version of the draft) a ‘low-risk’ AI system.

The result of the rise of third-generation AI has been last-minute scrambling and delays in the negotiation process around the AI Act before it is put to vote in the near future.[8] Some rules concerning such AI have finally made their way into the draft law.[9]

Through the above discussion, we see the vastly different technologies that regulation would have had to deal with over the years, and that if the current curve of change extends into the future, more and faster changes may be faced. Are the regulatory approaches at present ready?

### **Varying approaches to regulation**

When it comes to AI, a wide range of regulatory approaches have been considered at different levels.[10] While it’s not possible in this space to comprehensively discuss all the approaches and their pitfalls, let us take a brief look at three representative instances.

#### 1. Doctrinal Regulation

Doctrinal regulation is not regulation in the commonly used sense, but ordinary control of the technology through existing law. Nevertheless, it is often the natural first recourse.[11] What it implies is simple – use existing laws to prevent illegal use of the technology and to assign responsibility. Thus, laws pertaining to liability would govern harms caused by the technology and laws governing intellectual property would deal with issues within their domain.

#### 1. Sectoral Regulation

Sectoral regulations are bespoke. They are already favored by prominent jurisdictions such as the UK.[12] The purported benefit is to reduce the chances of over-regulation and use existing capabilities, thus also reducing the economic burden of regulation.

#### Horizontal Regulation

Horizontal regulation refers to regulating the subject matter irrespective of its field of application. What matters instead are the normative goals. The AI Act is a prominent example of this category, wherein the goal is protection against the risks AI poses.

*Which one of these should be adopted? Despite some utility, all these approaches seem to have significant pitfalls in general, as well as in the face of dynamic socio-technical systems created by AI.*

Consider Brownsword and others, who have pointed out that as technology becomes more disruptive, doctrinal regulation becomes laboured and unfit for purpose, and requires more bespoke regulation.[13] Within bespoke regulation, sectoral regulation is at best a temporary, ad hoc strategy. This is because these regulations are often not tailored for AI, which risks missing complexities arising out of the technology from the regulatory framework.[14]

This leaves us with horizontal regulation. Horizontal regulation is a useful approach, as it is designed to deal with the unique problems arising from the technology. However, as noted above in the context of the AI Act, the horizontal approach is impaired in the face of the change in technology and its impacts.

Clearly, thus, none of the above approaches is beyond reproach. And that's expected, given the challenges that we have noted. Added to this is of course the policy imperative that all jurisdictions face, which is to maximize the benefits of the technology. Does that mean we should not do anything?

Chesterman has noted that even 'masterly inactivity' is an approach to regulation, which he describes as "watchful restraint in the face of undesirable alternatives"[15]. Visibly, AI regulation is full of undesirable alternatives. Particularly when both under and over-regulation would be extremely problematic. Yet, as he himself goes on to note, "There is a difference between passively allowing events to play out and actively monitoring and engaging with an emerging market and its actors." [16] Can regulators strike a fine balance? Can they eschew passive 'wait and watch', while also avoiding the pitfalls of the traditional regulatory approaches noted above? Let's try to answer these questions in the Indian context.

### **Indian perspective and the way forwards**

India is no exception to the growing need for AI regulation. According to the 2021 Global Vibrancy Ranking by Stanford, India ranks third in the world, behind only China and US, and ahead of hubs of AI development such as Canada and UK.[17] The future prospects are bright for AI, as the government as well as the private sector is focused on harnessing the potential of this technology. The government particularly considers AI to be one of the most significant components of its public policy, a "kinetic enabler for the growth of our digital economy, investments, and jobs"[18]. On the question of regulation, however, it has made it clear – it is not considering bringing in any regulation.[19]

While the Government acknowledges the risks, its will to regulate appears to be impeded by the notion that something like AI Act may be too cumbersome and hurt innovation and adoption of AI, undermining its economic potential.[20] Instead, it appears to be preferring a sectoral approach by getting the government departments to standardize responsible AI development.[21] Will it be enough, given the weaknesses of sectoral regulation discussed above?

Some literature has emerged on the question of AI regulation in the Indian context. Reddy proposes a three-limb approach;[22] identifying the purpose of the regulation, a Liability Framework, and the regulatory features, by which he implies transparency and assessment of data used for training to ensure certain features. Others have advocated for the establishment of specific legislation for AI and ML.[23] Singh and others suggest setting legislation with some principles tailored for different stakeholders, but which also remain flexible in the near term to allow for further evolution. Under this scheme, the stakeholders would be required to design their internal protocols in consonance with the legislative principles. Without going into the merits or demerits of any of these suggestions, I submit that we need not look far as there already exists a framework that can serve as a regulatory tool suited for AI in the Indian context, at least presently.

In 2021, Niti Aayog presented a two-part Approach Document for Responsible AI. In Part I, it laid down seven broad principles for responsible AI, which were: Safety and Reliability, Equality, Inclusivity and Non-discrimination, Privacy and Security, Transparency, Accountability and Protection and reinforcement of positive human values.[24] In Part II, it laid down the operationalizing principles for Responsible AI, discussing the mechanisms required to put the principles into practice.[25]

In the latter document, accepting a larger need for regulatory intervention for AI, a body called the Center for Ethics and Technology (CET) was proposed. CET was envisioned as an advisory body aimed at creating a participatory forum for stakeholders, coordinating sectoral regulators to avoid inconsistent policies, acting as a knowledge hub, providing assistance with the formulation of policies and guidelines, and even ensuring cooperation between different states. Created as an independent and autonomous body and composed of experts from a wide range of areas of expertise, it could serve several needs such as monitoring, spreading awareness and capacity building. However, the CET is still to come into existence. If CET, with these mechanisms and principles, are put into place, India would have done what it needs to do right at this moment.

This suggestion is supported by regulatory theory. Historically, the term regulation evokes impressions of a tightly controlled system of top-down rule-making and enforcement by state authorities. This is because traditionally, regulation has been created by the 'command' of a central authority to 'control' the various players in the market. All three approaches to AI regulation discussed above fall into this category, and that is their core problem and the cause of their inability to deal with a highly dynamic technology such as AI.

The command & control (C&C) model also epitomizes ‘hard’ regulation that at times overburdens and impedes innovators. It is also inflexible – and thus often a failure in the face of change, one of the central This is exactly what the Government of India seems to fear, a fear that may not be entirely unfounded.

But in response to the weaknesses of hard regulation, a set of ‘new governance techniques’ have emerged over the years that aim at flexibility, stakeholder engagement and self-regulation.[26] These approaches essentially ‘decenter’ regulation, so that it becomes participatory and democratic, and which have been largely successful in assuaging such apprehensions.[27] Instead of hard rules, they focus on softer principles and standards. It thus becomes soft regulation.

In light of the unpredictable and exponential changes that AI is bringing everywhere including India, it is high time that CET is established. It will confer the following benefits:

1. It eschews hard regulation for now, but allows for close monitoring of the unfolding situation in a coordinated fashion, should there be a need for hard regulations in specific sectors or areas. Even a decision to not intervene would be based on thorough deliberations, rather than unexamined fear of economic missed opportunity.
2. CET can in principle be deployed quickly, as part of Niti Aayog’s vision. Time is important as an excessive delay in such a mechanism may lead to entrenched practices and interests.
3. Due to its flexible nature, it balances the authority of regulation with the resilience required in the face of ‘changes’ in technology and policy imperatives.

Two specific measures in addition to the above would go a long way in ensuring the effectiveness of CET. First, all organizations implementing AI must maintain transparency about the nature of the technology being employed. Secondly, CET should hold regular consultations with such organizations to review emerging socio-economic changes.

### **Just the right ‘nudge’**

AI regulation scholars Guihot and others suggest that in situations where hard regulation is undesirable, Governments should ‘nudge’ the organizations towards public interest goals. In the context of AI, this involves using broad policies and influences that shape the behaviour of AI-employing organizations towards the beneficial development of AI. [28] By exercising its mandate as discussed above, CET could influence the shape of AI development to ensure that India maximizes the gains and avoid the pitfalls of the AI revolution that is upon us.

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