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# POLICY BRIEF

## *AI Governance Post-GDPR: Lessons Learned and the Road Ahead*

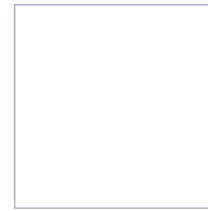
Recent breakthroughs in the development of Artificial Intelligence (AI) have initiated heated debates regarding its governance. As of today, the success of AI relies on machine learning – the ability of algorithms to learn from, and find patterns in, large amounts of data. Consequently, governance of AI will in practice mean policies regarding both the design and access to algorithms, as well as collection and usage of information. Regarding the latter, the European Union (EU) has put in place a comprehensive normative framework: the General Data Protection Regulation (GDPR)<sup>1</sup>, applicable since 25 May 2018. Based on the discussion that took place during the School of Transnational Governance's High-Level Policy Dialogue on 26 June 2018, we present three actionable recommendations for global and local policymakers coming to grapple with the questions of AI Governance:

1. **Incentivise compliance-centred innovation in AI**
2. **Empower civil society through AI**
3. **Enhance the interoperability of AI-governance structures**

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*The opinions of the authors represent personal opinions and do not represent the position or opinion of the European University Institute or the School of Transnational Governance*



## Background

### *The Rise of AI*

The last decade has been a witness to significant technological advancements made possible through the development of AI. From increasing efficiency of production and distribution through smart-grids<sup>2</sup> and workers' monitoring<sup>3</sup>; to high-frequency trading of stocks<sup>4</sup>; to pattern recognition in individual and social behaviour<sup>5</sup>, private and public actors have been able to optimise various processes through automation, and undertake new, previously impossible tasks. In addition, a range of AI-powered products have been developed and offered on the market. Those range from image- and voice-recognition tools, to digital personal assistants<sup>6</sup>, to the first autonomous vehicles, including self-driving cars.<sup>7</sup> These developments are by no means finished. Potentials for deploying AI in healthcare, finance, marketing or predictive policing have only started to be explored.

The meaning of "AI" in these phenomena is different from the ways in which engineers and philosophers used to define their quest, namely that of creating computers that would "perceive, reason and act"<sup>8</sup> or "perform tasks that require intelligence".<sup>9</sup> In a much more down-to-earth fashion, public and market actors managed to deploy machine learning algorithms to make sense out of vast amounts of data, gathered consciously, or created as a by-product of online operations.<sup>10</sup> As of today, "artificial intelligence" can be equated with "machine learning algorithms" paired with "big data" and implemented into products and services, or systems implemented in public bodies.<sup>11</sup>

### *Governance of AI*

Rapid developments triggered global and local discussions about the governance of AI, followed by publications of numerous national and transnational strategies, and countless working groups operating today and publishing reports.<sup>12</sup> "Governance" runs in several directions. On one hand, many governments have realised the potential of making their home industries more competitive through development of AI-powered products

and services. Significant amounts of funding have been assigned to promoting innovation in the area of AI.<sup>13</sup> An arms race has started. On the other hand, worries about potential negative effects of an (unchecked) development of AI have been voiced. Those encompass risks of discrimination, exclusion, losses to privacy and individual autonomy, as well as rise of new, incredibly powerful, market actors.<sup>14</sup>

Since AI relies on both algorithms and big data, governance of AI will encompass regulations and policies in both spheres. The GDPR well exemplifies that fact, presenting a live "laboratory" from which lessons can be drawn regarding impacts of data-processing rules on the wider landscape of AI-governance. GDPR's insistence on legality, transparency and accountability, purpose limitation and data minimisation, paired with the possibility of significant fines being imposed, has been criticised by many as stifling innovation, and praised by others for bringing innovation back into social check. Arguably, both voices carry some truth. Every regulation renders some actions unacceptable - that is the "taming" side of governance. However, it becomes clear that such regulation, paired with other innovation-enhancing efforts, can lead to a socially beneficial model of technology development.

## **1 Incentives for Compliance-Centred Innovation in Artificial Intelligence**

Regulation undeniably makes certain types of innovation harder. Insistence on using information only in certain ways, or designing algorithms with checks encoded, will undoubtedly make some applications more costly or impossible. However, historical evidence indicates that properly done, concrete regulation can also stimulate innovation in various directions.<sup>15</sup> On one hand, it gives clearer instructions to engineers or developers who would like to create products that are consumer friendly. On the other, it creates new markets for regulation-compliant products.

The EU has been criticised for "being third" in the AI-development race, lagging far behind both the United States and China.<sup>16</sup> The EU not only spends significantly less



money on development, but also creates a rigid regulatory environment (e.g. GDPR, consumer law, ePrivacy etc.), where access to data is more difficult, and certain (experimental) uses simply unlawful. These voices, without a doubt, carry some truth. However, two observations are due.

Firstly, the amount of money spent should not be treated as the measure of success. What matters to an equal degree is the purpose of spending, surrounding institutions of accountability, as well as those guaranteeing market functioning. There is much more to developing new and competitive products than just spending public funds. This said, a lot of work needs to be done in that direction.

**We recommend identification of key sectors, especially those where the market itself will not provide funding, and directing investment there, under clear conditions for rights-centred developments.**

Secondly, with global awareness regarding privacy and surveillance rising (NSA and Cambridge Analytica scandals, for example), one can reasonably assume that privacy and transparency are not just “European peculiarities”, but will gradually become competitive factors in business and consumer markets. The advantage of European developers stems from the fact that by integrating measures for regulatory compliance in the early stages of product design, they might be ready to market their products globally, once similar requirements - either as a result of market forces, or regulation - emerge. To once again draw on the history of environmental protection, countries historically not known for making this value their prime objective (like China) are now one of the biggest importers (and producers) of sustainable energy and production solutions.<sup>17</sup>

**We recommend the identification of strategic product markets and requirements, involvement with other regulators, and providing guidance to local developers on what new, right-centred applications have potential of being desired in the foreseeable future.**

This should not be confused with soft approaches like “ethics” - a buzzword often used to steer attention away

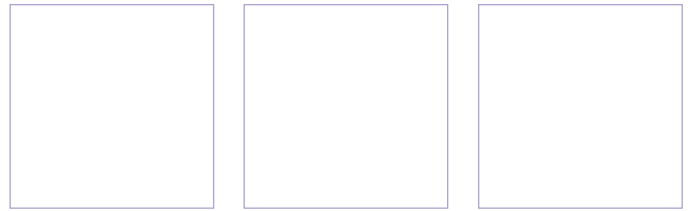
from the problem, rather than fixing it. “Ethics is Europe’s competitive advantage” is a slogan uttered a lot in the past years, during several events organised in the Union. If it is understood as “global expectations for privacy, transparency and accountability will rise, and so let us already now take them into account”, these words are words of wisdom. However, there is a risk of reading them as “we might produce less, and be less innovative, but at least we care about ethics and privacy”. The temptation to do so should be resisted. Moreover, one should be aware of the “ethics whitewashing” practice, where businesses try to avoid regulation by claiming that they adhere to general, unclear standards.

Incentives for compliance-centred innovation must be much more nuanced than just adopting new regulations. Eight billion dollars spent on compliance with GDPR<sup>18</sup> could have arguably been spent in more effective and innovative ways. The fear of being fined leads companies to hiring lawyers so as to ensure the GDPR compliance on paper. This is not innovation, and arguably this is hardly a rights-centred mind-set.

**We recommend that policy makers, apart from putting rules and regulations in place, proactively engage with businesses willing to develop rights-centred products, and incentivise them through a range of mechanisms: private-public certification programs, assistance in global trade promotion, and rewarding compliance-centred innovators with liability safe havens.**

Steps to be taken:

1. Create spaces for dialogue of industry and regulatory/enforcement bodies. Try to increase the clarity of regulations, through creation of dos and don’ts lists. Remove compliance-costs for developers through dialogue.
2. Think of possible guarantees for goodwill developers, willing to invest more in rights-centred approaches. Adopt policies differentiating the risk of fines for those who try to comply and fail, vis-à-vis those who do not care about compliance.



- 3. Create strategic task forces for various product- and geographical markets. Support local initiatives with a chance of getting competitive advantages as a result of adopting rights-centred approaches.

### Recommendation

**Incentivise compliance-centred innovation in AI:** Well-crafted regulation can stimulate innovation in products compliant with the declared regulatory goals. GDPR's focus on transparency, accountability and privacy-by-design should be treated as an opportunity to innovate in rights-centered products, rather than merely as a hurdle to innovation. The same can be said of other instruments to be potentially put in place to govern the development and usage of AI. However, for this to materialise, wise incentives structures, and cooperation of business and policymakers, are necessary.

## 2. Empowerment of Civil Society through AI

The majority of the 20th Century scientific and technological breakthroughs have been stimulated by nation states as a part of their defence capacity-building efforts, and AI is no exception. Its development until now is an exemplary story of the exercise of top-down power - first by governments, and today by a few multinational corporations. Such path dependency has significant consequences for future technological directions, the makeup of governance structures, as well as legitimacy and democracy. Nevertheless, by consciously acknowledging power asymmetries, rethinking governance structures and funding streams, power can be moved towards citizens. This can be done in particular through: (1) incentivising citizen-oriented innovation, (2) challenging market dominance, and (3) opening up decision-making processes.

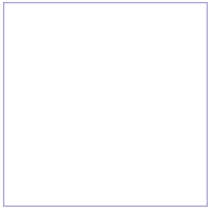
A recurring finding of many AI governance gatherings is that the discussions about the role and use of algo-

gorithms and data carry a larger load - an inquiry into the way humans interact with technology and each other. In this sense, even the most technical debates are inherently political and boil down to questions of power, control and participation.

Over the decades of development of disruptive technologies, humanity has established regimes for the governance of power. Today, as data is becoming a function facilitating power, controlling it is key in understanding who sets the agenda and makes the decisions about the complex systems that govern the lives of the millions. The history of science and technology proves that regulating complex systems through a single act or actor may be divisive and result in societal resistance. Hence, a pluralistic approach is needed - one that would open up techno-scientific decision-making processes, and equip individuals with tools to challenge majoritarianism and coercion. Yet, for citizen empowerment to be effective, divergent values, context-specificity and existing power relations need to be recognised. The following three recommendations carry a promise of more inclusive AI governance practices:

**Firstly, incentivise citizen-oriented innovation.** Streamline resources towards civil society. Organise funding flexibly so as to identify new types of activism and whistleblowing (i.e. platforms challenged under GDPR by an individual, not by established CSOs).<sup>19</sup> Examples of initiatives aimed at empowering the citizens are already with us.<sup>20</sup> The very imbalance of power created by the development of technology “from the top” can potentially be remedied by making it available for individuals and civil society. However, regarding certain uses, one cannot hope for the market to provide these applications on its own motion.

**Second, challenge market dominance.** Rethink competition law. A lot of AI acquisitions are happening below the radar of antitrust authorities, as IP or human capital drive attractiveness and not the market share. The role of data in antitrust has been widely explored,<sup>21</sup> but no serious political action has yet followed. Further, there is a need to enhance capacity to understand the market. Regulators need to be able to monitor mergers and acqui-



sitions. The information asymmetry can be mitigated by engaging with engineers and investors.

**Third, open up decision-making processes.** Open data as a tool for industry regulation. Incentivise open APIs. Introduce research exceptions to monitor technology development. Institutionalise citizen involvement through public consultations, hearings, sensing workshops and randomised controlled trials (RCTs).

**Recommendation**

**Empower civil society through AI:** The implementation of the GDPR has made clear that granting rights to individuals and civil society might not be sufficient, if they lack the factual resources to make use of them. AI-powered systems, currently developed by either business for business, or by and for public actors, could also be developed to enhance the power of individuals and watchdogs. Accountability and transparency makes sense only if someone has the power to make use of them. For that to happen, resources (knowledge, manpower, financial assets) should be channelled towards the development of what we call Civic AI.

**3. Towards Interoperability of AI Governance Structures**

“AI” is not one thing in need of the solution. Rather, depending on who uses it, for what purpose and in what context, the challenges it poses and opportunities it offers might be very different. Medical applications might require high investments, which as a society we are willing to bear, but also pose serious risks of misdiagnosis that need to be wisely tackled in advance. Systems more effective at suggesting to consumers what song to play next will probably be developed by the market, and at this point might need no regulation. Self-driving cars, promising incredible benefits, but also high risks for health and safety might require intensive tests and certification

before deployment, while self-learning vacuum cleaners might not. All this is to say: there will be no one-size-fits all, top-down governance structure for AI.

The GDPR is a horizontal, cross-cutting instrument affecting all instances of data processing, as long as the data contains information about the Union’s residents. It puts forward a minimum standard (and an ambitious minimum it is!), undoubtedly useful for ensuring privacy and accountability.

However, it has little to say about what data should be used for what purposes and under what conditions. These questions are not questions about data processing, but rather belong to respective branches of law and policy: consumer, social security, capital markets, healthcare etc. These policies should be developed in mutual dialogue with one another. As suggested above, for example, consumer authorities, privacy watchdogs and antitrust agencies have a lot to teach and a lot to learn from Data Protection Supervisory Authorities.

**We recommend the creation of permanent groups facilitating dialogue between different regulatory agencies and policy-making bodies. A lot of law, regulation and administrative agencies are already in place. We are not starting from scratch. Let us channel the accumulated sectorial experience into the AI-governance structures.**

Consequently, it is by no means obvious that “AI governance” will have to remain a fully separate endeavour, specific to this technology. Granted, various questions - about methods for accountability, testing, explainability - cut across many of the possible uses and can be almost universally useful.

However, sector-wise regulation of healthcare, advertising, telecommunications etc. will probably remain sectorial, and that should be applauded. Instead of regulating and governing AI that is used in capital markets or consumer transactions, let us continue regulating particular markets, with a realisation that AI is now part of the economic practice.



**We recommend down-streaming knowledge and skills from the general “governance of AI” debates and policy initiatives, to particular segments of the economy. At the same time, we encourage mutual dialogue of specialists from different sectors, contributing to a general understanding of social and policy impacts of AI.**

Similarly, certain policy considerations created by AI are global and can benefit from transnational dialogue and policy efforts, while many solutions might need to be developed and implemented locally. Policies and perspectives produced as a result of deliberations about AI in a specific region might be useful for other regions, yet ultimately choices about investment and risk allocation should be taken in democratic, participatory processes, with potentially different results all around the world.

**We recommend a sustained dialogue and effort that should be global in nature, but also focused on aspects which could, and potentially should, be tackled locally. In this way we can secure sharing of knowledge and experience, without imposing particular normative choices and sets of values on people all around the world.**

## Recommendation

**Enhance the interoperability of AI-governance structures:** Artificial intelligence is developed globally and locally, and cuts across all sectors of social life. Opportunities and challenges in healthcare, finance or advertising are distinct from one another, and might need case-by-case governance models. A lot of sectoral regulation is already in place. At the same time, certain characteristics of AI are common to all fields. A right balance between global and local; general and special; sector- and AI-specific regulatory forms should be maintained, through regulatory dialogue and day-to-day cooperation of public and private stakeholders.

## Endnotes

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## The School of Transnational Governance

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