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Data ordering in context: The interaction of mesolevel data governance regimes with macro frameworks

Data is the most important resource of our times. This insight emanates from the newfound realization that highly detailed data can be extracted and processed by private parties and governments at unprecedented scales, speed and efficiency. Data's fate is under intense debate, which takes place at multiple stages, ranging from the individual, micro-level strategies, via the meso-level approaches experimented by data sharing organisations, firms and municipalities, to how countries, competing on the global stage, define strategic frameworks around data at the macro-level. Albeit data is not entirely lawless, there is much uncharted terrain opening spaces for competing logics of data governance.

While the production, use and trade in data may seem not transparent at best, chaotic at worst, it is certainly not without structure. In the last decade a number of different data governance models emerged, both at macro-level, and on the more context-specific meso-level. On the macro level, there are substantial political differences between the United States (US), the European Union (EU), and for example China, about the role data is envisioned to play in the economy, or in the organization of the social-political order. These differences play out in the generic political, economic and legal frameworks that define data governance at the macro-level, such as the European General Data Protection Regulation (GDPR), or the laissez-faire approach which characterizes the US approach.

At the meso-level, there is considerable variation in technical, legal and normative frameworks that govern the production, extraction and exploitation of data. Different firms, industries, national governments and municipalities, and a diverse group of techno-legal driven communities came up with their own data governance practices, frameworks, technologies, such as data sharing agreements, data trusts and cooperatives, or distributed ledgers and personal data stores. The large variations between approaches to govern data can be attributed to the field being relatively nascent, and that 'good' governance of data depends on the highly specific local conditions in which data is being extracted, used and traded (Daly et al. 2019). This paper is looking at data from a broad perspective and it interrogates how different meso-level data ordering regimes develop in the context of their macro-environment.

By now, we may have entered a next stage of consolidation, where economic, geopolitical and ideological differences over data play out, and are contested to the point where more successful data governance frameworks crowd out others. We argue that this consolidation process is also a product of the interaction between vertical layers of data governance: the macro-level political regimes can favor particular meso-level strategies at the expense of others, while pressure from the meso- level, such as

from firms of local public institutions, such as municipalities, or universities, influence the normative contours of the macro-level.

Various stakeholders have defined their own approaches to how they organise their data related practices. The bulk of meso-level governance regimes were developed by economic actors, often before any overarching macro-level framework emerged, and are shaped by technical capacities, and business interests. A second set of data governance logics emerged in the public sector. The making available of public sector information to the public in general, and for commercial uses, has released large caches of information with relatively few restrictions. National legislations introduced a third set of what is predominantly ad-hoc, sui generis data governance rules, often in response to emerging business models, specific sectoral needs, social, political controversies, or new technologies.

Last but not least, a number of governance models emerged as counter-practices, defined in opposition to dominant public or private data regimes. New legal frameworks try to establish communal forms of data governance, such as data cooperatives, data trusts, data commons and the likes. Since it is easier, and faster to implement data governance frameworks in code than in law, some of these counterinitiatives are heavily technological in nature, such as individual data control technologies developed by crypto-libertarian communities, or distributed ledger technologies.

Despite all the alternatives, the dominant meso-level practices seem to suffer from equally serious shortcomings, independent of how the data is being treated. On the one hand, the problems with the dominant data appropriation logics are well known. A substantial part of our social and economic interactions take place within often private, but in most cases, inaccessible and largely opaque technological and business ecosystems. Data extraction and production take place inside walled gardens of online platforms so that data accumulates and concentrates in the hands of a few firms, which then commodify and monetize data, while excluding everyone else from the potential benefits.

The fact that this happens at scale, creates immense social, economic and political power, and information asymmetries between those who control data vis-à-vis other businesses, governments and individuals. On the other hand, even in those cases when data is on the move, and widely traded, serious issues have emerged.

The current data governance frameworks of data trade have failed to produce transparent and functioning data markets. We only have an ad-hoc, and incomplete picture of the trade and flows in personal data, for instance, and therefore it is impossible to ensure that individual rights are not breached in the course of, or as a result of such transactions. Quite to the contrary, there are indications of irregular and shady data markets while regular practices of data sharing and trade are underdeveloped. In short, the current data governance regimes produce inadequate results both when the data is static, and when it is the subject-matter of transactions.

Our paper contends that any solution to the aforementioned issues must appear as an alternative data

governance logic at the meso-level. European policymakers, public and private sector organizations and civil society have to focus on exactly this data governance space between macro-level data governance frameworks and data producers, because this is where the different logics, visions of data ordering and governance are competing for social, political and economic recognition, adoption, success. The paper is structured as follows. After a brief overview of the types of data we refer to in this analysis, we introduce leading macro-level regimes, i.e. political, economic and legal, that prestructure data governance, with a special focus on the EU approach. In the subsequent section we turn to the discussion of meso-level data governance frameworks. We start with spelling out the expectations vis-à-vis a good enough data governance framework, then we match the currently competing alternatives against this background. We conclude with an analysis of how the macro- and meso-level frameworks may interact so the outcome of the competition at the meso-level results in successful governance frameworks that map closely to the characteristics of good enough data governance.

Endnotes: