NAVIGATOR

D4.1 WORKING PAPER ON INSTITUTIONAL LANDSCAPE OF GLOBAL DIGITALISATION GOVERNANCE

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Executive Summary and Policy Recomendations

The institutional landscape of digitalization and cybersecurity has expanded and diversified significantly over the past decade. Hundreds of venues and processes are currently invested in digital and cyber policy making – some concerned with digitalization and cybersecurity in their respective areas of activity, others promoting more generalized policy approaches and yet others supporting digital growth and cyber resilience around the world. Such institutional churn is not particular to digital and cyber fields; however, it has direct implications on digital and cyber policy design and implementation. We make the following recommendations based on the findings of the first phase of our research:

1) The rapid expansion of the institutional and procedural landscape necessitates a regular review and triage of venues and processes. This would serve several purposes: detecting and designing strategic avenues for pursuing own (or allied) interests and objectives; tracking strategic use of processes and venues by other actors of interest; observing momentum, paradigm and discourse changes and signals of decay or growth of particular venues and processes. A step towards such review could be a more thorough analysis of the existing venues and processes with reference to their leading agendas and actors.

2) Given the diversity of available venues and processes, it becomes both necessary and possible to analyze optimal (and sub-optimal) venue configurations, for instance with the view of maximizing stakeholder involvement, increasing the intensity or frequency of discussions or fixing (or alternating between different) levels and focal points. It is essential to consider that different venues and processes can be instrumentalized for a particular strategic or normative goal, whereas distinct venues can become entangled through the pursuit of several incompatible goals and agendas.

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3) Cyber and digital policy toolkits could address metrics for evaluating venue efficiency. This includes awareness of perceptions linked to the venues utilized or led by respective actors. For instance, the analysis indicates that several EU agencies (ENISA) and frameworks (GDPR, DMA) have significant international standing. These could be instrumentalized to achieve the EU's goals through (re-)designing them into deliberate platforms or channeling relevant strengths into other international discussions and policies.

Designing meaningful and efficient digital and cyber policy pathways requires drawing more concrete connections between a given actor's priorities and available platforms. This will be the focus of the second phase of our research.

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Introduction

Governing digitalization has become a key global challenge involving a multitude of states and other stakeholders. Facing this complexity, those tasked with navigating the multi-tiered and sprawling landscape are increasingly stressing the need for more all-encompassing approaches. The 2023 European Council's conclusions on digital diplomacy stressed the importance of increasing "synergies between EU policies and actions, notably in the areas of human rights, cyber, hybrid, and digital [...] science and research, technology, trade, economic security and supply chains (General Secretariat of the Council 2023). Similarly, the US State Department noted in the 2024 "International Cyberspace and Digital Policy Strategy" the need to implement a "comprehensive policy approach that uses the appropriate tools of diplomacy and international statecraft across the entire digital ecosystem" (US Department of State 2024). Both statements reflect the increasing recognition that digitalization poses global governance questions that cuts across traditional organizational and institutional silos, requiring engagement across a wide variety of venues, involving a diverse host of actors, and coordinating disparate parts of bureaucracies to act coherently and strategically in an increasingly tense international system.

The statements also reflect the criticality and importance of digital technologies in contemporary societies, an importance that is complicated by the conflicting attitudes and perspectives towards them globally. In the European Union (EU) and North America, near-100% internet penetration is a norm, and policies have primarily been geared towards ensuring human rights, protecting critical infrastructures, and maintaining an open and fair digital economy (Flonk et al. 2020). In other parts of the world, the picture looks different. The world average of 70% internet penetration highlights how for many states the core question of digitalization remains access and the continued inability to participate in the digital transformation. For authoritarian regimes like China and Russia, the threats and challenges digitalization poses to the regime and social stability have been the key imperative for engaging in global governance efforts, offering a competing vision of not only digitalization but of multilateralism writ large (Raymond and Sherman 2024).

The differing imperatives, increasing importance, and sprawling and comprehensive governance landscape is both difficult and vital for policymakers and diplomats to grasp. Knowing where and how to best mobilize limited resources to have a real impact globally will be key to act strategically and coherently. Developing this knowledge is challenged by the sheer scope of the governance landscape and the continued tendency to understand the governance landscape of digitalization in terms of siloes (see: Nye 2014; Pawlak 2019; Pavan 2009), be they disinformation, artificial intelligence, trade policy, cyber security or supply chains. Finding a way through this landscape in a way that enables coordination and comprehensive approaches across bureaucratic and conceptual siloes thus require an understanding of the institutional landscape of the global governance of digitalization.

However, mapping the institutional landscape of digitalization is a particularly challenging proposition. Firstly, the ubiquity of digital technologies in all aspects of social life creates fuzzy boundaries between it and other policy issues. This fuzziness is in turn interpreted differently by various actors attempting to frame emerging topics within the issue area and institutional landscape where their preferences can be promoted (Hofmann and Pawlak 2023).

Mapping the then-emerging global landscape for governing internet policy issues a decade ago, a UN special commission clustered hundreds of different venues and organizations around 40 distinct issue areas, a landscape that has but grown since (UN Commission on Science and Technology for Development 2015). Moreover, both in scholarly examinations and diplomatic practice, issues of digitalization are drawn up through different-but-overlapping boundaries often but not always represented through different prefixes and subfields. Resultingly, discussions of "cyber", "internet governance" and "tech" often refer to similar but slightly different issue areas and encompass subtly different fields. Within these broader umbrellas, sub-fields like cyber security, artificial intelligence and data governance slices the cake in different forms. The complex landscape resulting from this ubiquity and fuzziness is in turn made more complex by the continuous technological churn raising new policy issues; disinformation, artificial intelligence, ransomware to mention but a few, that were either marginal or not addressed at a global level prior.

Previous efforts of mapping this landscape have largely been done in a qualitative and ad-hoc manner, framed around various prefixes and relying on subjective assessments. Such mappings have been invaluable in providing an outline of the emerging landscape and regime complex governing digital technologies (Nye 2014), and much-needed resources attempting to collate various policy areas more or less in their entirety as they evolve and change.[1] Still, both the subjective assessments and selection criteria and the subtle difference in framing makes it harder to discern between the importance and utility of various venues. For policymakers, having to manage more than 600 processes and IOs, knowing it is an incomplete mapping of the landscape and with only subjective assessments of the relative importance makes navigating the landscape a daunting task. Not least, the many different framings and prefixes of these mappings makes any judgements on their relative importance and centrality across different issue-areas impossible.

This paper proposes an alternate approach to grasping the institutional landscape, drawing on existing mappings of various issue-areas. Collecting pre-existing mappings of the institutional landscape and emerging regime-complexes, we aim to identify the core venues and organizations they all coalesce around. Through building a meta-dataset based on previous mappings focused on cybersecurity governance, digital governance, and related themes, we map the core institutions and components of various subfields. While by no means a comprehensive mapping of the entirety of the field, our approach enables us to identify what is arguably the core of the sprawling and dynamic global governance mosaic of digitalization.

The paper is structured as follows: First we outline the challenge of mapping digitalization governance globally, as well as the utility but incompleteness of previous efforts. While previous mappings have provided useful tools for identifying key venues and processes, they have either been content with qualitative mapping of sub-fields, attempted to be all-encompassing in a way that makes prioritization impossible, or subjective assessments of the field that are increasingly outdated as the landscape shifts. Second, we outline our methodology, combining previous mappings by a collection of organizations and venues explicitly mentioned by the key stakeholders in strategies or other outward-facing documents at MFA-websites. Third, we sketch out some broad findings of this mapping on the landscape writ large. Finally, briefly denoting the policy priorities and objectives of the European Union, we provide some insights and ways forward for future research.

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Mapping Digitalization: grasping a sprawling and massive landscape 1

The institutional landscape of governing digitalization is immensely broad. In a 2015 report by a UN commission on "Mapping of international Internet public policy issues" the authors identified more than 40 different policy issues, dispersed over seven clusters[2] and comprising more than 680 different governance mechanisms, initiatives and venues (UN Commission on Science and Technology for Development 2015). The report also noted the "impossibility" of adequately mapping all relevant governance mechanisms, owing both to the scope of the task and its constant evolution (ibid, p.5). The CYBIL Portal, mapping the landscape of cyber capacity building (CCB) as a subset of the broader field, lists 1042 individual actors and organizations (Cybil Portal 2025). This complexity is not only reflective in the sheer scale of governance initiatives and efforts, but in the varying and confusing nomenclature where prefixes such as "cyber", "Internet", "Net", "Tech", "E" and "Digital" refer to partially overlapping and partially subtly distinct fields of study and policies (Kurbalija 2024).

For a large part, mappings of the field of digitalization narrow down the scope to primarily look at a distinct subset of issues. Beyond CCB, there are mappings of the governance of Artificial Intelligence (Schmitt 2022), cyber security (Kuerbis and Badiei 2017), cyberweapons (Stevens 2017), data flows (Christakis 2024) and more. The variety of mappings is not solely down to the narrowing down of the focus into different policy domains but also differing conception of what forms of governance and at what level should be accounted for. Resultingly, some map governance through market mechanisms, hierarchical and networked forms of governance collectively (Kuerbis and Badiei 2017), others as the combination of national and international efforts (Stevens 2017), as well as a diversity of actors ranging from states to civil society and corporations (Pawlak 2019).

The broad scope of issues discussed is also a result of various states and actors parsing the issues differently. While most would coalesce against a core set of issues related to the impact of digitalization on security, economic exchange and technical interoperability, the broader sets of issues are by no means uniform. Conflicts over how to govern cyber issues are partly about the issues themselves, and partly competing visions of multilateralism more broadly (Raymond and Sherman 2024). For example, debates in UN venues have frequently suffered by a difference not only in opinion but also the key issues that are at stake. While OECD-states for a long time stressed the importance of open economic exchange, the security of critical infrastructures and protection of human rights, authoritarian states were mainly concerned over the negative effects on social stability and the ability to protect cultural norms and domestic companies, while developing states framed the issue around capacity building and closing of the digital divide (Flonk et al. 2020). These differences are not solely reflective of a democratic-authoritarian or developed-developing axis either, as practices and understandings of the issues at stake can vary also between broadly aligned actors like the EU and the US (Hofmann and Pawlak 2023).

Moreover, the field is characterized by a high degree of dynamism and evolution. The mapping of mainly UN-based cyber and digital policy processes (Tikk and Kerttunen 2025) underscores that digitalization and cybersecurity related processes lose (and gain) priority over time and in the context of particular agendas and goals. For the years we have covered, some venues and platforms have emerged or disappeared, while some have done both. The Global Commission on the Stability of Cyberspace (GCSC) for example was formed in 2017 and closed by 2019. Still, for its duration the commission was influential, and its work continues to hold some importance for the governance of digitalization.

For states and other actors, this diversity challenges their ability to act coherently and coordinate across bureaucratic and conceptual silos (Pawlak 2019). For attempts at mapping it poses a different question of what ought to be considered, what is important, and which venues and organizations matter across these different siloes and conceptualizations. Efforts to encompass the whole have stressed the overlapping, non-hierarchical nature of what is oft-labelled a cyber regime complex (Pawlak 2019). Yet for mapping purposes it has been understood as a "massive undertaking" to provide any comprehensive mapping, and one that would be largely incomplete (Nye 2014). A decade further along, the institutional landscape governing digitalization is if anything far more complex and diverse. As a consequence, efforts to grapple with the cyber regime complex rather do mappings for conceptual purposes (Sukumar et al. 2024), in order to make arguments about the settling of issues within pre-existing institutional contexts (Hofmann and Pawlak 2023), choose illustrative examples for categorizations (Pawlak 2019; Nye 2014) or attempt to make broader points about the state of global governance (Raymond and Sherman 2024).

Offering a complete picture of the thousands of different venues, organizations and processes that make up the governance landscape of digitalization is beyond any paper. Current mappings depict north of 50 policy issue areas (Diplo Foundation 2025) divided across multiple different forms and tools of governance including standards, norms, treaties, bilateral agreements, national and regional regulations, private companies and civil society (Pawlak 2019). Still, for policymakers and scholars alike, having some awareness of the core of this sprawling complex and its interconnections would be a valuable tool to navigate the complexities of global governance. For developing such a tool, we turn to our methodology.

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Methodology: the core of a vast field

The divergence of mappings across different sub-fields, and the increasing efforts to coordinate digital policies across these sub-fields offers both an opportunity and a challenge. While it creates a complex landscape, if also offers insights into the venues and processes that are deemed the most important by various actors. Our initial starting point for mapping this complexity departed from a collection of pre-existing mappings of the landscape covering digitalization and relevant fields. Through a desk study we collected 20 different resources doing some form of mapping exercise of digital/cyber governance and/or relevant fields. None of these mappings claimed to cover the entirety of the field, noting the impossibility of such an exercise, rather they mostly argued for being an illustrative sample of the breadth and variety of the landscape or works in progress. Through this early collection of sites and venues we created a dataset consisting of 621 different organizations[3], processes and venues.

Similar to early mappings, this list is by no means exhaustive, depending both on the definition of cyber/digital, the forms of governance considered relevant, and the extent to which the dataset is including niche venues and processes relevant for the governance of digitalization but tangential in the wider ecosystem. Rather, this list of 621 processes and venues is a representative sample of the core of global governance of digitalization through collating what is identified as key venues and initiatives by different mappings.

As a second step we narrowed down the list to a manageable size. For this paper, we aimed to identify the key processes and venues as identified by states themselves through pairing our list with the processes and venues explicitly mentioned in digital strategies and priorities by foreign ministries on the issue of digitalization. In order to verify the centrality, we mapped the venues, processes and organizations explicitly referenced either in digital/cyber diplomacy strategies or labelled as cyber or digital on foreign ministry websites. We completed this verification for twelve G20 countries, adding references in end-of-year statements by major technology companies to include the perspectives of private actors. Ranking the venues by the number of times they are independently mentioned both in mappings and by the actors themselves, we cut from the list those that are mentioned less than three times, resulting in a shortlist of 89 venues, processes and organizations for further analysis.[4] Finally, we verified this list through independently surveying issue experts and practitioners, in order to ensure that our list did not miss sites or venues these considered vital.

While our approach allows for a partly structured mapping of the institutional landscape of digitalization, there are several caveats. Firstly, to incorporate the multiple different prefixes and framings of the field, we collated mappings that ostensibly map different themes. For example, mappings of the cyber regime complex have been merged with mappings of policy issues for internet governance. This allows us to cover a breadth of issues relevant for digitalization, but at the same time there is a risk of merging rather different topics into the same dataset.

Moreover, the landscape is dynamic and constantly evolving, in particular when it comes to more ad-hoc governance mechanisms and issue-specific processes. The mappings we draw on are conducted throughout the last ten years, and the verification through state proclamations cover the last eight. Key venues from 2015

are not necessarily relevant in 2025, making our dataset vulnerable to obsolete venues being overrepresented if they were key at an earlier date.

Our subjective assessment is that while some venues are either fading in relevance, obsolete or supplanted by new governance initiatives, these do not constitute a large enough portion of the data to be detrimental to the whole project. Finally, while we have strived for the inclusion of diverse perspectives, the data is prone to be biased towards the positions of OECD states. Both in the departure of G20 as a selection criterion, through the inclusion of tech company perspectives, and through the cyber/digital diplomacy strategies of OECD-states in general being more elaborate and comprehensive. To remedy the potential of bias, we have tried to be as inclusive as possible in drawing the cut-off point for organizations included to avoid cutting sites considered vital by non-OECD states. The list of 89 venues is by no means all-encompassing, nor is it free from biases or some misrepresentation caused by dynamic shifts replacing some venues. However, as a starting point for mapping the core of governance efforts over digitalization it allows for the collection of key sites as identified by experts and practitioners.

Subsequent work will conduct additional verification, as well as include more mappings to continue building out the dataset and enhance its reliability. The list is not intended as a definitive ranking of the most important and influential sites and venues, a claim that is highly dependent on the definition of governance and very much in the eyes of the beholder, it is merely an illustrative list of the breadth of global governance of digitalization in order to identify the complexities of the field. The rest of the dataset, made up of initiatives, actors and venues mentioned but once does not mean that these are not relevant governance actors in the institutional landscape of digitalization. Rather, it consists of important venues and processes, but rather implies a more limited impacts across multiple policy issue areas.

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The Global Digitalization Governance Landscape

Through a simple count of the number of times an organization or process is mentioned, the core of the institutional landscape revolves around a familiar body of nine dedicated UN organizations and high-level International Organizations were a few only partially address issues related to digitalization. The UN's now-obsolete Group of Governmental Experts (GGE) and sister-body the Open-Ended Working Group (OEWG) are both amongst the most frequently mentioned as touchstones for the longest-running international negotiations on cyber norms and state behavior in cyberspace. Their continued importance underlines the importance of the UN system, as well as the relevance of the coming Program of Action as a continuation of the process. Further, known bodies of importance for broader issues of digitalization like the International Telecommunications Union (ITU), the Internet Governance Forum (IGF) and the multistakeholder non-profit Internet Corporation for Assigned Names and Numbers (ICANN) are also amongst the most frequently mentioned. The rest of the core group consists of more general-purpose organizations like the G20, G7, OECD and Council of Europe (CoE) that participate in global governance of digitalization both as agenda-setters and through dedicated programs.

Subsequently, a far more diverse and larger group are frequently mentioned but not by more or less all actors as the abovementioned. These have a far greater variety both in terms of what type of organizations, process or actor they are, the form of governance they provide, and the type and scope of membership. There is also a greater range of more dedicated and specialized organizations not primarily engaged in governing digitalization, highlighting how the ubiquitous nature of digital technologies draws in more or less all actors in global governance of their development and use. While these are arguably not the core of the institutional landscape to the same extent, their frequent mentions imply that they also hold a key position in the broader governance landscape as it pertains to digitalization.

In this group, there are several prominent regional organizations like the European Union, African Union, Organization of American States and the Association of Southeast Asian Nations. Far more comprehensively represented in this group are technical bodies and coordinating organizations at a technical level like the Institute of Electrical and Electronics Engineers (IEEE), the Forum for Incident Response and Security Teams (FIRST), and the World Wide Web Consortium (W3C). Beyond technically-minded bodies, the second tier consists of a few dedicated listings that have different functions like the Global Forum for Cyber Expertise (GFCE), a multi-stakeholder platform for knowledge creation and the Budapest Convention and Ad-Hoc Committee on Cybercrime, hosted by the CoE and the UN respectively. The group also consists of more recent commitments like the Paris Call, Declaration for the Future of the Internet and the Freedom Online Coalition that aim to rally like-minded states and actors around a set of stated principles on a voluntary basis. Finally, broader-purpose organizations like NATO, the World Bank, UNESCO and the WTO underline the importance of pre-existing organizations and institutions adapting to a new environment.

The third tier consists of a larger body still that are mentioned frequently by some, but not across the board. For a large part the composition of this group mirrors the ones above, but includes a range of platforms, actors and initiatives that are less frequently mentioned either due to being more peripheral, more specialized, newly established or no longer in function. New types of entries are regulations with an extraterritorial reach and implication like the GDPR, civil society actors like Access Now, and minilateral forums like the Quad grouping of US, India, Australia and Japan. The listings also begin to include even more specialized forums and actors like Regional Internet Registries (RIR's), anniche-platforms like the Global Internet Forum to Counter Terrorism.

Finally, a long tail of listings that are mentioned three or four times are broadly composed of even more specialized and peripheral organizations either serving a dedicated purpose – like APCERT being a collaborative forum of cyber security practitioners in the Asia-Pacific region – being too recently established or still in formation – like the abovementioned Program of Action or the Copenhagen Pledge – or simply being too peripheral in the overall governance landscape such as smaller UN-bodies like UNIDIR. Here minilateral forums prop up more frequently, including a few bilateral ones, that are unlikely to be mentioned more frequently due to the limited number of participants, indicating that engagements at the bilateral level between key actors play an important role.

As vast as the cybersecurity and digitalization policy landscape is, it still features some distinctive characteristics. Issues of digitalization and ICT security have penetrated major international (UN), regional (OAS, AU, ASEAN) and multilateral (NATO, CoE) organizations. Major global groupings (G7, G20, G77, Non-Aligned Movement) have developed extensive digital and cyber portfolios. Anno 2025, digital and cyber issues are governed also by specialized organizations in their respective fields of responsibility (ICAO, IAEA). In testament of the pervasiveness and scope of digitalization, more specialized agendas, processes and even venues have formed around technologies and socio-technical trends or issues like artificial intelligence, blockchain, ransomware, intellectual property or protection of children online. The cyber and digital policy terrain features prominent presence of industry coalitions, professional networks, civil society organizations, research programs and track 1.5 and 2 consultations.

Our analysis also indicates the centrality of major economic and financial platforms, both international and regional (WEF, World Bank, IMF, various development banks), to digital development and governance. On the more technical side, there are well-developed organizational and administrative frameworks of standardization, emergency response and Internet names and numbering. Alongside established platforms and venues, more informal and amorphous processes, events and agendas have formed, like the London Process on cybersecurity governance, the Global Forum of Cyber Expertise or the Global Commission on the Stability of Cyberspace. Accordingly, only a few international organizations can be characterized as focusing mostly or primarily on digitalization and/or cybersecurity, with the ITU being the notable example. On issues of national and/or regional importance, the system of bilateral and minilateral consultations provides additional avenues of coordination and governance.

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Crucially, the evolving landscape of governing digitalization implies a continuous shift of responsibilities, emphasis, and the emergence and disappearance of new forums. We label this continuous evolution institutional churn, functioning through three main dynamics. One sees issue areas moving in-between forums and venues as actors forum-shop their preferences and interpretations (see also: Pawlak & Hofmann 2022). Another dynamics see new forums and initiatives appearing and disappearing as ad-hoc approaches and informal discussions take on significance and fade, either due to the declining importance of the issue-area or by the shifting of political attention to other sites. Finally, institutional churn sees a reorientation of fields themselves, as new topics are continuously introduced and located within existing landscape, or triggers the creation of new governance sites. For the future work on the changing institutional landscape, longitudinal studies of the effects of institutional churn

The table below offers a sample breakdown of the types of venues and processes. The distinction between cybersecurity and digitalization more broadly is illustrative, as similar tables could be constructed framed around other sub-issues like data governance, protection of rights online and so on.

	General		Specialized	
	Cybersecurity	Digitalization	Cybersecurity	Digitalization
Global	OEWG, ITU GCA	IGF, WSIS, Global Digital Compact	Global Partnership for Action on Gender-Based Online Harassment and Abuse, FIRST	ICANN, WIPO, Net Mundial
Plurilateral	GFCE, GCSC, Tech Accord	FOC, Nordic-Baltic Digital Co-operation Initiative, W3C	Counter Ransomware Initiative, Pall Mall Process	Global Partnership on Artificial Intelligence
Regional	ASEAN Cybersecurity Coordinating Committee	Inter-American Network on Digital Government	ENISA, EUROPOL	OECD E-commerce Policy Dialogue, Smart Africa Alliance
Bilateral	India-Netherlands Cyber Dialogue	EU - Japan Digital Partnership, EU-US TTC	EU US Privacy Shield	Brazil-EU Digital Dialogue

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Key characteristics of the core of global digital governance

The Navigator project is concerned with charting a path for the EU in the face of growing institutional complexity and overlap in a dense and shifting landscape of global governance. Considering the rapidly changing global order, and the evolving role of multilaterals and alternative forms of governance, navigating these changes require thoughtful consideration of where to place one's efforts. Key in this regard is the trade-off between efficiency, understood as the ability to deliver timely governance outcomes, and legitimacy, both in terms of output of governance processes, inputs into them, and the legitimacy of the processes themselves. Different issue-areas might require different considerations of these two, necessitating striking a delicate balance between the legitimacy hailing from universal membership and the effectiveness offered by more exclusive and nimble formats. To assist in the considerations of legitimacy and efficiency, this paper and the Navigator project as a whole home in on three key characteristics. The first of these, formality, ranges from a formal intergovernmental mandate to more club-based, hybrid, or multistakeholder means of organizing that are ad-hoc or in other ways less institutionalized. Openness ranges from being open to public debate and deliberative to closed to public debate and coordinated beyond closed doors. Finally, normativity depicts the functions of the listings, and whether the emphasis is apolitical technical discussions, explicit espousal of normative goals, or some form of combination of the two. Mapping where listings are placed on these three characteristics can assist the EU and its member states in uncovering different action strategies for the EU and its member states, depending on the EU's objectives, and the degree of contention.

As our mapping consists of more than 80 different initiatives, organizations and processes, displaying their distribution across all three dimensions is beyond the scope of this working paper. Rather, for the purposes of this paper we outline the distribution of listings coupling two and two indicators. This allows us to unearth different combinations that illuminate different aspects of legitimacy and efficiency.
Firstly, we consider the relationship between openness and formality. We code formality both as the formality of the organization in itself, understood as whether it is an established long-running organizations with settled permanent functions, a distinct secretariat and a defined headquarters, and in terms of the outputs it provides. That is, does it result in binding treaties under international law at one extreme, or is it merely produce principled declarations or intentions. As such, we understand formality as the ability of the body to produce long running and binding commitments. For openness, we consider both the openness to different actors within and across actor-types. That is, for a listing to be considered fully open it has to be inclusive of all interested and relevant parties, be they state representatives, civil society or the private sector. On the other end of the spectrum, minilateral clubs or bilateral dialogues are the most closed form of listing coded.

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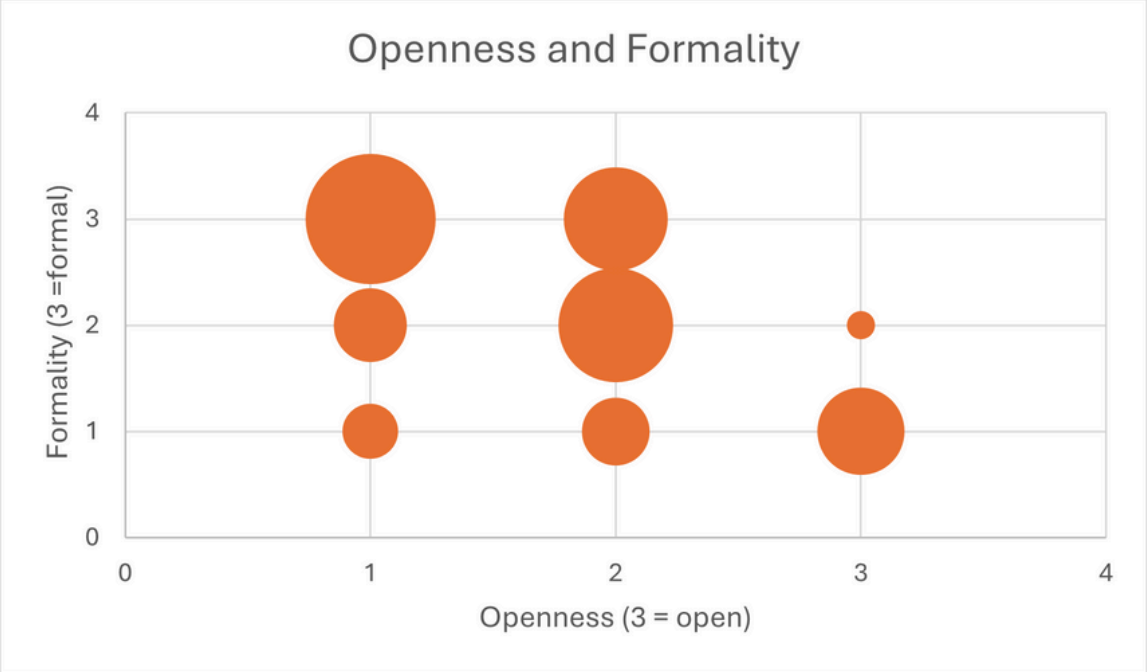
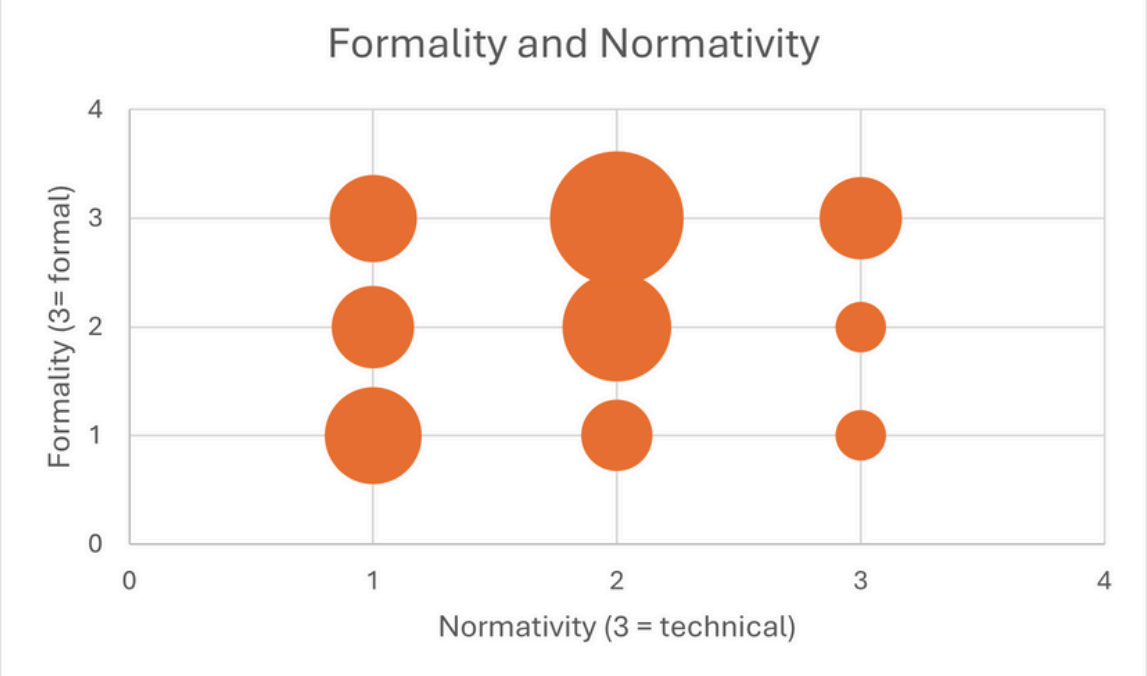


As suggested by the chart above, formality and openness are closely tied together within our subset of "core" listings governing global digitalization. Closed venues tend to be far more formal both in terms of their organization and in terms of their ability to produce binding commitments. More open listings, a far smaller subset of our sample, are heavily skewed towards informality, with no listing being both fully open and fully formal. For the global governance of digitalization, it suggests a clear trade-off between different forms of legitimacy : open and inclusive venues source a variety of perspectives, but struggle to produce binding commitments, more restrictive venues have more staying power and are able to create stronger ties, yet they are far more restrictive in terms of participation. However, the large body of listings displaying a mix of characteristics suggests a more complicated picture, not least as these listings are not uniform in their variation.

Our second combination of characteristics looks at the links between formality and normativity. Normativity explores whether the output and functions of the listing is normative or technical in nature. Technicality in this context does not simply refer to whether the output is technical governance like standards and protocols, although that is covered as well, rather it concerns the type of governance more broadly. Technical listings provide guidance such as best practices, measurements, technical standards or the like, while normative ones aim to influence behavior through the promulgation of principles, norms and other normative assertions. Normativity therefore considers not so much legitimacy and efficiency, but the type of output that is provided and distinguishes between different forms of governance.



As indicated by the chart above, the correlation between normativity and formality is less clear-cut than formality and openness. While more normative listings are spread evenly across the varying degrees of formality, more technical venues have a distinct pattern toward more formality which is mirrored in the hybrid venues. This implies that normative initiatives and processes are evenly distributed amongst all types of organizations: from long-running established ones to informal and voluntary processes. Technical governance on the other hand, is more firmly institutionalized in formal settings that produce binding commitments and have established permanent bodies.

Our final chart concerns the relationship between openness and normativity. The confluence of these two characteristics illustrates whether different forms of governance are unequal in their composition of membership. In terms of legitimacy and efficiency, variation across these dimensions could imply that different forms of governance weigh the need for legitimacy and efficiency differently, with some skewed towards providing broad-based consensus decision-making and others geared towards providing efficient outcomes.

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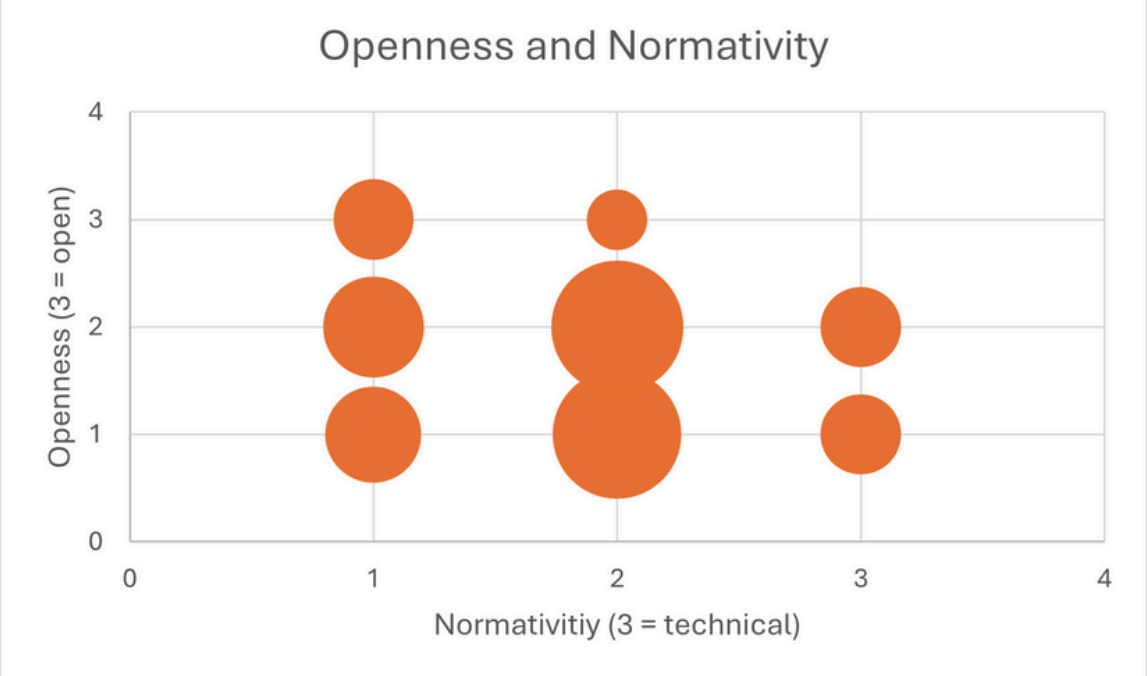

As shown in the chart above, of the different characteristics the correlation between openness and normativity shows the least clear pattern. The one stand-out is the lack of a fully open listing providing technical governance, suggesting that efficiency is prioritized. For normative listings, there is no clear pattern indicating that there is a variety of different forms of listings and initiatives at play. The large body of hybrid listings are fairly evenly distributed as well, with the majority displaying a mixed composition and a fairly small subset being fully open. Beyond the assertion that technical governance initiatives prioritize effiency over broader legitimacy, it is therefore challenging to draw clear conclusions.

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Observations and conclusions

Governing digitalization has become a global challenge where selecting between the different processes and venues will be a complex task as the organizational landscape is not only vast but also constantly evolving and changing. This landscape is characterized by considerable fragmentation of platforms, processes and initiatives, the emergence of new influential actors and forms of institutional entrepreneurship and dynamic, constantly morphing agendas. More broadly, digitalization and cybersecurity confirm the move from traditional multilateralism to plurilateral and fragmented global arrangements to a more unilateral, privatized and transactional international scene.

Making choices about governance areas and pathways will be a particularly strategic challenge for the EU as there are several trends against the habitual rules-based multilateralism from other major powers, and a likely counter-force from the rest of the world returning to established international institutions. Digitalization, a clear strategic imperative for the Union, poses global governance questions that cut across traditional organizational and institutional silos. This necessitates engagement across a wide variety of venues, involving a diverse host of actors, and coordinating disparate parts of bureaucracies to act coherently and strategically in an increasingly tense international system.

The EU's contestants can be expected to be strategic about venue and process shopping as clear divides remain between competing agenda-setters as to the priority themes as well as normative focal points. Russia, in particular, has instrumentalized multilateral venues in its pursuit of new norms, rules and principles governing digitalization and information security. For example, we can expect the gulf closing between two cybercrime regimes – the Budapest Convention and the UN Cybercrime Treaty, if not substantively then due to the increasing streamlining of cooperation and exchange mechanisms. The dynamics, however, can be expected to change even further in the now emerging transactional climate where several normative processes have been privatized either by process or leadership. The Trump administration can be expected to give rise to a potentially new legalistic trend that dismisses non-binding norms processes and resorts to unilateral interpretations of the existing regimes in combination with surgical agreements in support of acute and imperative national interests. In parallel, however, for many countries the UN Digital Compact, Digital Cooperation Roadmap and digital aspects of sustainable development remain key avenues for advancing their priorities.

Meanwhile, the differing imperatives, increasing importance, and sprawling and comprehensive governance landscape is both difficult and vital for policymakers and diplomats to grasp. Our mapping suggests the need for a continued research agenda on the evolving institutional landscape governing digitalization. Alongside a number of long-running general-purpose organizations like various UN bodies, the WTO and regional organizations like the AU, ASEAN and EU, we detect a noticeable number of recently established, since-defunct and novel initiatives by states and the private sector alike such as the Tech Accord, Paris Call, GCSC and NetMundial. Of more recent ones, initiatives like the Counter Ransomware Initiative and the Christchurch Call are issue-specific initiatives responding to ransomware and extremism online respectively.

The dynamics and mechanisms between more general long-running bodies and these new forms of governance initiatives ought to be an area of further study. For an actor like the EU aiming to act coherently it poses a challenge of both riding short-term waves to produce outcomes and shoring up these gains in the long-running established forums that remain the core of our mapping.

The challenge is, at the same time, one of institutional sustainability and the overall trends in the global governance. The institutional churn we detect calls for novel methodologies to investigate the relationship between initiatives and long-running IOs over time. We note that nearly 30% of the most frequently mentioned venues and processes are incorporated under domestic (mostly US) law, suggesting that international organizations face competition from NGOs and other coalitions with global and multi-stakeholder membership, but also that some topics may not yet be ripe for discussion at more formal venues or are expected to face political differences when opened on government-governed platforms. Our currentresearch simply highlights the extent to which initiatives emerge and disappear but not how they relate to one another and evolve.

Based on the observations above, we make the following recommendations:

1) The rapid expansion of the institutional and procedural landscape necessitates a regular review and triage of venues and processes. This would serve several purposes: detecting an designing strategic avenues for pursuing own (or allied) interests and objectives; tracking strategic use of processes and venues by other actors of interest; observing momentum, paradigm and discourse changes and signals of decay or growth of particular venues and processes. A step towards such review could be a more deeper and more extensive analysis of the existing venues and processes with reference to their leading agendas and actors.

2) Given the diversity of available venues and processes, it becomes both necessary and possible to analyze optimal (and sub-optimal) venue configurations, for instance with the view of maximizing stakeholder involvement, increasing the intensity or frequency of discussions or fixing (or alternating between different) levels and focal points. It is essential to consider that different venues and processes can be instrumentalized for a particular strategic or normative goal, whereas distinct venues can become entangled through the pursuit of several incompatible goals and agendas.

3) Our (side) observation about changes in venue and process relevance and efficiency, with reference to the now-dormant or obsolete organizations and agendas, suggests that the realities leading to the decay or growth of venues and processes contain opportunities and imperatives for new leads and revisions of strategies to be led through international platforms. A discussion to that end could involve various EU stakeholders, including industry, academia and the civil society.

4) The sheer volume of existing processes and venues invested in digitalization and cybersecurity calls for a deeper inquiry about rules-based institutionalism, taking into account principles and goals of, e.g., subsidiarity, administrative efficiency and (de-)fragmentation. Studies of trends in global governance related to EU's strategic goals and objectives could be supported under the EU research agenda.

Given the populated and constantly evolving institutional landscape, cyber and digital policy toolkits could address metrics for evaluating venue efficiency. This includes awareness of perceptions linked to the venues utilized or led by respective actors. For instance, the analysis indicates that several EU agencies (ENISA) and frameworks (GDPR, DMA) have significant international standing. These could be instrumentalized to achieve the EU's goals through (re-)designing them into deliberate platforms or channeling relevant strengths into other international discussions and policies.

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Endnotes

[1] See for example the mappings of the DIPLO foundation and the Cybil Portal in the annex

[2] These are infrastructure and standardization, security, human rights, legal, economic, development and sociocultural aspects.

[3] We removed listings that were national in their outlook, thus ending up with a smaller list than for example the CYBIL mapping of CCB

[4] In the annex we have removed ineligible listings such as civil society or national regulation. We include these in the analysis of the landscape, but not the characteristics of governance venues and processes as these do not fit the criteria

[5] https://www.nti.org/education-center/treaties-and-regimes/united-nations-groups-governmental-experts/

[6] https://aseanregionalforum.asean.org/about-arf/

[7] Building on the GGE and OEWG, we include the PoA even if it falls outside our formal criteria

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NAVIGATOR

NAVIGATOR is a 4-year research project set to examine how the EU shall navigate the increasingly complex – and conflict-laden – institutional spaces of global governance to advance a rules-based international order. What factors should be emphasized when considering which institutions to strengthen, which to reform, and which to by-pass when revitalising multilateralism?
NAVIGATOR's main objective is to answer these questions and deliver a ready-to-use "search mechanism" and associated pathways of action that the EU and its member states can use as it seeks to strengthen a rules-based international order.

To achieve this, NAVIGATOR comprises a strong, global and inter-disciplinary team of researchers that explores institutional variation on six policy issues – climate change, digitalisation, finance/tax, health, migration and security – to identify what institutional mixes that enables the EU to have optimal impact in a given policy issue.

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