Mapping “Public Interest Representation in the Information Society”

DR ELENA PAVAN

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Mapping “Public Interest Representation in the Information Society”: A Network Analysis Experiment

Dr Elena Pavan
Department of Political and Juridical Sciences and International Studies, University of Padova, Italy

Abstract In this short paper I apply a network approach to the study of how public interest is being represented within the global landscape made up by a vast plurality of institutions, considering some of the data gathered through the survey realised by the Dynamic Working Coalition on Internet Governance Mapping. I will discuss how network analysis can be applied for deepening our understanding of how civil society interests and actions are played out within a multi-actor context, as in the information society, where public and private interest constituencies find different spaces and constraints to define, defend and sustain their agendas and priorities. I will use parts of the data gathered through the survey to make a case for using some network analysis concepts and tools (in particular that of centrality) to gain a better understanding of governance dynamics of relevant global policy domains such as information and communication management.

9.1 Introduction

In this short paper I provide an integration to the analysis of survey results proposed by Norbert Bollow in his work “Public Interest Representation in the Information Society.” I apply a network approach to the study of how public interest is being represented within the global landscape made up by a vast plurality of institutions, considering some of the data gathered through the survey realised by the Dynamic Working Coalition on Internet Governance Mapping. I will discuss how network analysis can be applied for deepening our understanding of how civil society interests and actions are played out within a multi-actor context, as in the information society,
where public and private interest constituencies find different spaces and constraints to define, defend and sustain their agendas and priorities. I will use parts of the data gathered through the survey to make a case for using some network analysis concepts and tools to gain a better understanding of governance dynamics of relevant global policy domains such as information and communication management.

Networks are popular tools in the study of global information and communication flows – let’s just imagine the information society as the “network society” (Castells 1996). The popularity of networks is linked more to their use as powerful images depicting the complexity of contemporary governance arrangements in the area (Kenis & Schneider 1991). This predominant use of networks as metaphors and powerful images has somehow shadowed the peculiarity of a “network point of view” on politics (and, more broadly, on society) and has often hampered the translation of this point of view into systematic empirical studies complementing the insights generated by more conventional approaches. In other words, the heuristic potential of networks (Padovani & Pavan 2011) both as images and analytic tools is not fully exploited or endorsed within systematic research programmes.

While I acknowledge the power of networks as conceptual tools as well as their incredible utility for disentangling complexity, especially with reference to multi-faceted global domains such as global communications, I think it is worth clarifying that the adoption of a network approach (both in general but also in particular for studying the governance of information and communication issues) entails much more than images. Adopting a network perspective means adopting a different way of reasoning about political dynamics, one that is centered on a radical shift of attention from actors to relations they establish (see Padovani & Pavan 2011). Such a conceptual shift entails in the first place the necessity to move our concerns from who are actors to what relation joins them, how they interact, how much they are involved in (mutual) relations amongst themselves, how strategic is their position within the interactional milieu we are examining. However, this shift requires the development and the employment of specific techniques to empirically study the relational patterns that emerge from the bulk of ties joining together actors in networks (Wellman 2002).

What has this conceptual shift to do with a critical reflection on how public interest is represented in the information society? Far from being a simple surrendering to the inevitable charm of networks, I believe that a network approach is particularly useful as it allows us to face systematically three challenging elements that characterise the field of global communication governance (see Pavan 2012):

- The overall thematic uncertainty regarding the issues that are, from time to time, discussed in the various subfields of global communications as well as about connections that might exist amongst them;

- The overall procedural uncertainty regarding the roles and the responsibilities of institutional and non-institutional actors in the complex political management of information and communication matters; and

- The multiplication of spaces where these uncertainties are tackled through the development of innovative political dynamics involving the collaboration of institutional and non-institutional actors.

From a conceptual perspective, because networks are flexible tools, we can move in a complex environment without getting lost, just moving along network ties and uncovering the strategies through which political discourses and actions are built up to
lower the uncertainty that characterises information and communication issues management.

However, the adoption of a network point of view can help us understand a further element that is crucial in all political dynamics, ie, that of power. With regard to the concrete occurrence we are studying here, ie, the representation of public interest in the information society, how and how much public interest is included, endorsed and challenged within the institutional landscape depends on a power component that we cannot overlook but that we need to conceptualise and operationalise systematically.

In fact, in a society like the one we live in, characterised by multiplicity of actors and issues, dynamism and complexity of levels (Kooiman 2003), we need to move toward an idea of power that overcomes the traditional belief that power resides in actors’ attributes to reach a relational view of power, for which it results from the bulk of relations that structure a determined interactional milieu. This implies that power arrays are not defined once and for all and that it is starting from relations established in the field that we can gain a different sense of possibilities and challenges for the democratic inclusion of public interests in the information society.

I am not suggesting here that actors’ attributes and characteristics are not important. In his paper, Norbert Bollow illustrates with great detail how much the very features of institutions populating the information society do influence how and how much public interest is represented. However, the attention he and the survey designers pay to the procedures for participation within these institutions already points toward an idea that is the relation established within the institution has a determinant influence on the inclusiveness of information society institutions.

Consistently with the premises of a structural point of view on society (see Wellman 2002), I argue that the role attributes play should be reassessed: while in a traditional power conceptualisation who you are determines what you can or cannot do, if we consider power relationally then it is what you can or cannot do that determines how important you are. Therefore, to understand possibilities and constraints to action we have to focus on relations actors establish and how the patterns of relations translate into different types of political power (eg, bargaining, gatekeeping, popularity etc.).

If we look at relations, we can elaborate more in depth about elements such as dependencies, collaborations and conflicts joining together actors in the field and we can derive overall considerations about how power is structured in the information society. Wondering how public interest is represented in the information society, I propose we include a specific look to relations established between public interest sustainers and the multiplicity of institutions in the field so to complement concerns on how many times public interest reaches existing institutions as well as on the limits of current inclusion procedures. Yet, we are still in a situation where we need to push forward the translation in empirical terms of a network perspective and we need to assess the meaning of network analytic tools for the dynamics we are studying.

In my previous work, I engaged in this “translation” effort. Coming back to the three challenging elements that I suggested are characterising the governance of global communications (ie, thematic uncertainty, procedural uncertainty, multiplication of spaces for discussion), I started from the multiplication of spaces for managing information and communication issues to inquiring how network exchanges between actors and ideas are currently reducing the overall thematic and procedural uncertainties. While my studies concentrated on the Internet Governance domain, thanks to the survey realised by the Dynamic Working Coalition on Internet Governance Mapping we can now try to expand this approach to other domains beyond that of Internet
governance to study more broadly how public interest is represented at large in the multiplicity of information society institutions.

Here I will provide a short account of one of the many possible ways of working with the survey data in network terms. The paper is organised as follows. Firstly, I will indulge on some methodological notes, to clarify the different steps I made to trace the networks from data that were not originally gathered for this purpose but that were, nonetheless, characterised by a great “network potential”. Secondly, I will provide a set of visual representations of the data considered and will apply some techniques to explore the structure of the links established between respondents and institutional interlocutors. Thirdly, I will sketch out a possible research agenda, calling for its collective refinement in a multi-disciplinary and multi-sectoral perspective.

9.2 Methods and data

For the exploration of survey data, I considered only the completed questionnaires where respondents declared to represent (at least) one organisation. The total number of respondents considered then was 37 (28% of total answers). Given the exploratory purpose of this network exercise, the limited number of questionnaires considered does not preclude the possibility to elaborate on how network measures can be applied for reading dynamics of interest representations in the information and communication governance field.

To draw a first set of relations to analyse, I focused on the question “In which of the following institutions have you been involved in policy discussions on information society issues?”. Starting from the list of options provided in the questionnaire, I built a matrix where a tie exists between a respondent and an organisation if the respondent declared to have taken part in the discussion within that organisation.

Although both respondents and institutions do share their formal organisational nature, they provide two different types of nodes: the respondents represent civil society/public interest constituencies in the information society; the second, ie, the organisations, represent the main institutional points of references in the field. Hence, the matrix used for this exercise can be thought as a 2-modes matrix (Wasserman & Faust 1994) and treated consistently with its peculiarity, ie, joining together a set of actors (in this case our respondents) with a second set of so-called events. In this exercise I have deliberately left aside suggestions made by respondents on other institutional points of references they have in the field. However, this information can and should be included in future elaborations.

9.3 Bringing public interest into the institutional milieu

When we represent graphically the network we derived from the survey data, we obtain a situation like the one in the first figure. Small red nodes are respondents,

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1 Amongst the 37 questionnaires selected, one did not include any sort of answer to the question considered (not even in the field for personal suggestions) and one was a duplicate of a multiple-affiliated respondent for which we have decided to meld the answers provided (as there was not a significant difference between the two profiles). Both decisions are admittedly arbitrary and point to methodological elements I will discuss in the last section of the paper.

2 In this case “events” should be understood in terms of “having participated in the discussion within a certain institution.”
larger black nodes are institutions listed in the survey as the possible places where public interests can be discussed. There is a tie between a red node and a black node if the respondent has declared to participate in the discussion within that organisation.

What does this representation tell us? At a first glance, this representation might appear rather confusing given the dense bundle of ties. However, we can notice that there are no isolate and sparse nodes – at least, as far as we can see. This means that there is actually a nucleus of “dialogue” where most of the respondents are tied to institutions (remember that the ties stand here for an involvement in the discussion). In fact, if we look at the data, there are two respondents that are disconnected from this main component of ties and nodes because in their answers they had not chosen any of the proposed alternatives but, rather, had specified their collaborations in the column “other”. Also, there is one disconnected institutions that, for the selection that I made at the very beginning (only questionnaire completed and by organization representatives) results disconnected, ie, the European Patent Office. However, overall, we see that disconnection is not the main characteristic of this network and, although we keep in mind that we have to further examine the status of the few isolated in our network, we can focus on what the connected component can tell us.

From a graphical point of view, we see that there are some black and red nodes in the centre of the picture while, if we proceed toward the outside, we find a more scattered distribution. This “spatial” location of nodes can be interpreted in terms of the existence of a dialogue core, made up by some institutions and some respondents, opposing to a scattered periphery where, although dialogue is taking place, is less structured and dense. If we focus on the institutions in the core, we can think of them in terms of “hotspots”, as they provide, more than others, places where public interest representatives are involved in the discussion, ie, they receive more ties from red nodes.
(it is enough to notice the different density of ties in the core and outside the core).

How can we detect who these hotspots are? We see that many black nodes are tied to respondents (red nodes) and, therefore, somehow all institutions listed in the survey are recognised places for discussion in the field and, on the other hand, there is a certain level of inclusion of public interest representatives in the discussion.

How can we distinguish hotspots from other, less often participated institutions? One possible way is to lean on the concept of centrality, which allows to identify more important actors in the network and, conversely, to identify those who are in the "periphery", ie, who are less important.

There are at least three ways in which one actor can be central: because it receives many ties from the other nodes in the network (degree centrality), because it stands in between other actors relations (betweenness centrality), because it is closer than others to anyone else in the network (closeness centrality) (Freeman 1979).

When we look for hotspots in our network, we need to remember that our network is made up of two sets of nodes (respondents and institutions) and, therefore, we need not only to distinguish between types of centrality but also for the set of actors we are considering (Everett & Borgatti 2003). “Hotspots” mean more often participated institutions, therefore, we can opt for degree centrality.

When looking at the specific set of nodes provided by institutions, one institution is more central the more respondents have indicated it as a place where they have brought their issues. The second figure depicts the same network we visualised before characterising the size of the institutional nodes by the size of their degree, ie, by their importance as places for discussion.

The result we obtain computing and plotting centrality measures shows that the places that are more often participated are the ICANN, the ISOC, national government-
tal institutions, the IGF (both at regional and global level) and the OECD. Although other institutions have actually engaged in discussions with public interest representatives, they have done so in a more limited way (see the smaller size of blue nodes representing the institutions in figure 2).

For those readers who have been involved in the discussion of information and communication issues for a long time, this result might appear quite obvious: we have the traditional Internet governance institutions plus some recent and important multi-stakeholder governance experiments such as the Internet Governance Forum. And yet, I argue that this result is less obvious than what it seems.

In the first place, it should be noted that the list of options provided in the survey was much broader than the list of institutions dealing with Internet governance issues. The fact that ICANN, ISOC and the IGF itself have emerged as the central nodes while other organisations, for example linked to human rights defense (such as the European Court for Human Rights) or to pure commerce (such as the WTO), are less important seems to suggest a sort of thematic characterisation of information and communication issues in terms of Internet governance issues.

This finding can be interpreted in various ways. On the one hand, we may think it is the by-product of the emphasis put on Internet governance after the World Summit on the Information Society, which has somehow catalysed most of the information and communication debates in this direction (see Pavan 2012). On the other hand, one should wonder if IG institutions are more open to participation than other institutions whose scope is broader. In other words, this finding opens a question on how ready institutions are to host public interests representative especially in the case of older institutions that were born under a logic of nation-states representativeness formally excluding non-governmental and non-institutional constituencies.

There was another interesting detail that the study of centrality revealed to us. If we compare the levels of centrality amongst the hotspots identified we can notice that the “traditional” Internet governance institutions, such as ICANN and ISOC are less central than the IGF at the global level and at the regional level but are equally less central of various national governments that have opened the doors for the discussion about information and communication issues (see the table below).

This might suggest that public interest representatives are in search for new interlocutors but also that procedures of representation embodied by the traditional Internet governance procedures are being progressively overcome. Also, the fact that other Internet governance institutions, such as the IETF, or standardisation bodies like the W3C are less central than new and more comprehensive discussion forums like the IGF seems to suggest a certain preference not only for spaces that allow participation from a procedural point of view, but also from a thematic perspective.

9.4 Conclusions

In this paper I took the chance provided by the survey realised by the Dynamic Working Coalition on Internet Governance Mapping to make a case for using network analysis for studying the representation of public interest within the information society institutional landscape. The premises of this exercise can be found in Norbert Bollow’s work on how we need to understand what are the possibilities and obstacles for public interest representatives to access and bring their issues in the policy arena so we can assess more systematically what is the level of inclusiveness and participation within a
crucial area such as the management of information and communication issues.

I argued at the beginning that there are good reasons for adopting a network approach – the potential of the network image, helps us simplify a very complex landscape such as that of information society; the possibility to elaborate on the effects of relationships, in terms of dependencies, collaborations, conflicts, exchanges; the possibility to look more in depth at power distribution between actors in the field. In this regard, I also argued that a relational view of power should overcome the limits of traditional conceptualisations for which power is inherently determined by who actors are and are not. Instead, I proposed to link power to the place actors occupy within a certain system of relations. I believe that if we are preoccupied with understanding possibilities and constraints to action, then looking at relations is one crucial step to take.

I made a small experiment and used sections of the data from the survey to visualise and explore the structure of relations between respondents and institutions listed in the survey. In concluding this exercise, I would like to pull together the various strands I opened in this work.

First, I have argued that most of the popularity of networks in the study of political dynamics in the information society field is due to a metaphorical use of networks and I have called for a “translation” of this metaphor into empirical terms. Here, I have attempted this translation but in an exemplificative way thus facing several limits and making several arbitrary decisions. The data of the survey was not originally gathered for this purpose but I saw what I called a “network potential” in them. I selected just one specific type of information surveyed and I filtered at the beginning on the totality of answers received. Moreover, I considered the relation “having been involved in the discussion within a certain institution” from an admittedly rough perspective (basically yes/no). In this sense, I have not included in my experiment all the information gathered through the survey about modes of participation (eg, existence or absence of formal mechanisms for speaking) or funding. All this information could have made my experiment more precise, more detailed and I acknowledge that my analysis here should not be taken as definitive. However, my goal was not to explain but to explore and, in exploring, to make a case for using network analysis for integrating our current knowledge on mechanisms of public interest representation.

Although small and limited, our little network analysis experiment allowed us to see some interesting elements. We represented the involvement of respondents in institutional discussions in terms of networks and, looking at the visual representation of links between organisations and institutions, we realised quite clearly that there is a dialogue going on and that gathers a plurality of respondents and institutions.
Looking at this maze made up by different discussion flows, we realised that there is a core of dialogue where some institutions are involved and we sneaked into that core to find out that the central institutions in the discussions are Internet governance-focused.

Thus, we noticed that amongst the central institutions, the most important are those IG bodies that are built around inclusive procedures and conceptualisations of the Internet governance. Although, as I said above, this can be interpreted in various ways, the bundle of ties representing participation dynamics led us easily to identify where the bulk of discussion is taking place. It is certain, someone could argue that we would have arrived at the same conclusions without nodes and ties – and I do not deny this could be true, but once we visualised the data in terms of networks we could easily disentangle the maze we were starting from and getting “straight to the core.”

The representation of public interest is an inherently relational dynamic: it means bringing ideas, priorities, agendas and visions within an institutional milieu that has rules of procedures of a certain type. The added value of a network analysis exercise like this one is, perhaps, not in the answers it provides, although some insights that have emerged are pretty interesting and deserve further exploration (eg, the thematic concentration around IG, the suggested overcoming of traditional governance mechanisms etc).

Rather, the values is provided by the potential that characterises the switch of attention from actors to the relations that join them together, by the potential of mapping with immediacy how public interest is currently brought into the institutional milieu and of identifying who is in the core, who is not, and who should be.

As I argued at the beginning, networks have a lot to say about power. We found that some specific institutions stands at the core of participation dynamics and, in this sense, are recognised points of reference in the debate. If, as it emerged from our analysis, broader scope institutions that are centered around human rights or are absent from this authoritative core, then it is starting from relations that we could for example assess the need for integrating a human rights perspective into the information society agenda.

Mapping through network concepts and tools what is going on “out there”, can provide us with useful starting points to master our knowledge about participatory dynamics in the information society. As I argued elsewhere, the potential of networks stands in the fact that “where ties are present, some kind of potential is being exploited. Where ties are absent, some kind of potential is inactive, but it is still there. Networks help us go beyond the perennial game of opposites because they show, at the same time, what results are achieved and what are not achieved but more importantly for the reform of political mechanisms, where action could be undertaken to improve the overall effort to move global politics toward a radical and genuine democracy” (Pavan 2012: 161).

### 9.5 References


