Who do you think you are? Individual stakeholder identification and mobility at the Internet Governance Forum

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A B S T R A C T

In order for the Internet Governance ecosystem to work effectively, it requires a variety of expertise and advice from different sectors and backgrounds. Drawing on the public Internet Governance Forum (IGF) participation lists from 2006 to 2019, this paper analyses how individual participants chose to identify themselves in the given frameworks applied across the IGFs, and how they 'travel' through the Internet Governance ecosystem over successive fora. Identifying 18,968 unique IGF participants from 2006 to 2019, representing 7326 unique organisations, this paper thus provides an unprecedented level of detail as to who is present in multistakeholder discussions. It sets the scene for a more reflective discussion on the inclusivity and effectiveness of the multistakeholder model pursued at the IGF and engages with literature in the field of stakeholder mobility and stakeholder interests, opening up potential for further research on the legitimacy of multistakeholderism.

1. Introduction

The Internet's Governance ecosystem is based on principles of multistakeholder participation. Given the transcendence of the policy debates that need to inform Internet Governance (IG), various key actors have considered that a multiplicity of actors need to be involved in order to enable the internet to work effectively for all. Input into IG has thus required a variety of expertise and advice from different sectors and backgrounds. As the debates on digital governance are again at the fore of international policymaking (see, e.g. the UN Secretary General's statements on Digital Cooperation, or moves towards digital sovereignty in regions of the world), we aim to revisit debates on the effectiveness of the Internet Governance Forum (IGF). We do this by analysing the participation of stakeholder groups in the IGF, specifically focusing on how they identify themselves and how they move across groups over time.

To understand how agency and representation in multistakeholder institutions takes place, we choose to reflect on the roles of various stakeholders in the Internet Governance Forum (IGF) by constructing a dataset of stakeholder participation in the annual events. Our paper addresses how stakeholders identify themselves in the given frameworks that are applied across the IGFs. We examine stakeholder identification and the nature of stakeholder mobility. We analyse how stakeholders identify themselves and how they are understood by the wider community. Moreover, we are interested in understanding how stakeholders move across stakeholder groups over time. Combined, these elements allow us to reflect on cross-fertilisation of ideas and movement of interests that add to the

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discussions of the legitimacy of the multistakeholder model.

Drawing on the public IGF participation lists from 2006 to 2019, we analyse how individual participants chose to identify their stakeholder categories. We subsequently analyse the data to address the following questions:

1. How have stakeholders identified themselves in comparison to their allocation in the internet governance stakeholder framework, and where do the discrepancies lie?
2. Have individuals maintained their roles during different editions of the IGF?
3. Have stakeholders moved between stakeholder groups, thus raising questions about their representation roles?

Addressing these questions will give us the means to open up a space for critical reflection on the multistakeholder model at the IGF.

The paper is structured as follows. In the first section of the paper, we review how different Internet Governance fora categorise stakeholder groups, such as the WSIS Working Group on Internet Governance (WGIG), NetMundial, the Internet Governance Forum (IGF), ICANN, the IETF, the ITU and the W3C. We then go one to raise several key themes that are raised in the literature that help provide a framing feature for our empirical analysis. This section aims to illustrate the differences of understanding in categorisation of stakeholder groups.

The second section maps and analyses individual stakeholders who have participated at the Internet Governance Forum, with the aim to understand stakeholder self-identification. We compare individual stakeholders' self-defined identities against the framework elaborated in previous work (Tjahja et al., 2021), which include civil society, government, technical community, private sector, end user and combinations of these stakeholder groups where applicable, in order to investigate individuals' understanding of their participation in the IG ecosystem.

This leads us, in a third section, to examine stakeholder mobility between stakeholder groups. In the final section, we reflect on individual stakeholder IGF participation throughout the years and address any patterns that we may find.

2. Literature

In order to effectively gather input from different actors (which is the essence of multistakeholderism in its broadest sense), a clear identification of the roles and responsibilities taken by different stakeholders in multistakeholder policy debates is imperative (Hofmann, 2016; Malcolm, 2008, 2015; Working Group on Internet Governance, n. d.). This kind of stakeholder mapping exercise has been attempted in a myriad of different ways, mostly qualitative (Belli, 2015; Epstein, 2013; Pavan, 2012; Pavan & Padovani, 2009; Radu, 2019; Radu et al., 2015; Raymond & DeNardis, 2015; van der Spuy, 2017). This literature has led to broader discussions about the evolution of the multistakeholder model, as currently seen in the IGF. The literature points to a diversity of interpretations of the definition of 'multistakeholder', leading us to talk about different models, rather than one coherent global institutional framework. Overwhelmingly, literature that has compared variants of multistakeholderism has tended to look at several distinctive models of multistakeholderism that can be classified by their 'authority relations' into hierarchic, polyarchic and anarchic institutional frames (Raymond & DeNardis, 2015, p. 603). This diversity of implementation of multistakeholderism leads to the need for more in-depth and concrete research into how these different models 'play out'.

The following table highlights the way in which different internet (policy)-related institutions apply their own models of 'multistakeholderism', by highlighting who is seen as a stakeholder in each institution. The result coincides with the reflections of previous work that depicts the internet governance space as a disparate and multi-faceted space where different forms of governance are evolving to suit the specificity of the respective institutions.

Despite the 'inchoateness' of multistakeholderism as a phenomenon, the literature that talks about multistakeholderism in the context of internet governance tends to generate a number of common research questions, which remain unanswered and lead us to investigate a more empirically-based research agenda, which will allow for more detailed understanding of how different spaces in internet governance deal with the concept in practice.[1] Questions then emerge about the nature of the participation and engagement of various actors in these different multistakeholder frameworks, leading us to address not only the varying institutional designs of these fora, but also the effectiveness of the design in helping achieve the stated outcomes of the frameworks established. This moves discussions of legitimacy from 'input' to 'output' and 'throughput' (e.g. Schmidt, 2013). It also reflects some of the trends in research emerging from other fields (notably the environment/sustainable development field) that has attempted to understand the effectiveness and legitimacy of multistakeholder fora (Bäckstrand, 2006; Beauzamy, 2010). We propose to add to the debates by providing a detailed analysis of the participation numbers at the IGFs between 2006 and 2019, which will contribute to the discussions around the effectiveness of the multistakeholder model used in this particular setting.

A common understanding of what constitutes a multistakeholder approach to governing the internet is still evolving. Challenges appear in establishing how to balance core themes of democratic engagement in this novel institutional setup, including representation and participation. Belli comments that "existing examples of multistakeholderism primarily focus on the participation that may be associated to predefined categories and often neglect to analyse the [underlying] interests" (Belli, 2015, see also (Doria, 2013)). He adds that "multistakeholder processes are based on voluntary participation rather than representation" as can be observed in the Internet Governance Forum.

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[1] See Epstein and Nonnecke (2016) for an analysis of Regional and National IGFs, as well Radu (2019) for a more in depth analysis of 'the IG community'.

Zooming in on the issue of participation, several issues that need to be further addressed through empirical research are highlighted in literature that looks at the field of internet governance. In our preliminary analysis, we identified two key issues that need to be addressed in terms of stakeholder engagement within multistakeholder fora in the field of internet governance. The first concerns the representative nature of individual participants in these spaces. When stakeholders participate in international fora such as the IGF, who are they actually representing? Emphasis is put — at a political level — on the diversity of stakeholder groups who participate in the IGF. However, in anecdotal participant observation of the IGFs, we came to realise that many participants were actually representing more than one organisation and even more than one stakeholder group when participating in IGFs. In the end, we felt that they tended to represent 'themselves' rather than any given institution or organisation, which leads to a blurring of the nature of 'multi-stakeholderism'. This ambiguity around the stakeholder group/institutional affiliation has been raised by other scholars: 'double hatting' has become "widely common and widely accepted in the IG space." (Radu, 2019, p. 180). This also leads to challenges for measuring participation, which is used as one of the key indicators to identify success of the multistakeholder model. As we describe below, the phenomenon of double hatting is one area we decided to look at in more depth, given the challenges this poses to our understanding of representation of different stakeholder groups in the IGF.

A second issue that emerged from our reflections on participation in various IGFs related to the mobility of stakeholders across different groups, and over time. We wanted to understand whether a transnational élite that disregarded stakeholder categorisation was being formed at the IGFs (Bexell et al., 2010; Cogburn, 2017; Uhlin, 2010). We also understand that legitimate stakeholder engagement rests on principles of equity and openness to participation: "Interest groups are normatively justified if citizens are equally represented and their interests are faithfully communicated in a way that minimizes rent-seeking and maximizes deliberation" (LaPira & Thomas, 2014). We were thus keen to trace how actors shifted from stakeholder group to group over time.

3. Methodology

Drawing on the public IGF Secretariat in-person participation lists from 2006 to 2019, we analysed how individual participants chose to identify their stakeholder categories with the aim of understanding the composition of these stakeholder groups. We also used these lists to understand the mobility across stakeholder groups. The baseline data is derived from reported participation in annual IGFs, as provided from the IGF website.[2] To ensure the data were useable, we developed a database where we removed duplicates by assigning one name to an organisation and homogenising alternative spellings, translations, and punctuation. We also structured the dataset to bring together subdivisions of one organisation, as part of the original organisation. We identified multiple affiliations (also known as "double hats" regardless of amount of affiliations) and these were separated to acknowledge the different organisations and by extension affiliation represented.[3] At the end of this first step, we identified 18.968 unique IGF participants from 2006 to 2019, representing 7.326 unique organisations. In total 26.935 persons have attended the IGF between 2006 and 2019.

We then build on the work of Tjahja et al.'s (2021) IGF civil society mapping, which presented a purpose-focused framework to assess stakeholder categories. The dataset and codebook used in that paper was expanded to allow us to include all organisations and individuals across all stakeholder groups (see Annex A). Indeed, it was further developed to inductively reflect on the Government, Intergovernmental Organisation (IGO), Private Sector and Technical Community stakeholder groups and their intersecting stakeholder groups, (in addition to identifying End Users) to further develop the Purpose-focused framework. The codebook was then used to assign stakeholder groups following the purpose-focused typology across all in-person participants from 2006 to 2019 to understand. The missing IG framework entries in the data set were mostly coded by one person and checked by two people. Any ambiguous entry was marked for discussion and reflection. In this coding round, 80% of the data was single coded, 10% was jointly coded, 10% was marked for review.

Finally, we created formulas to bring together data following our research questions and designed tables and graphs to visualise our data (An 'Annex B' with detailed explanation of formulas is available upon request). We believe that the dataset that emerges from our research efforts will already provide a fruitful contribution to the debates on assessing the future effectiveness of agency and representation at the IGF.

3.1. Limitations

3.1.1. In-person vs remote participation

We chose to focus on in-person participation due to the availability of the dataset which for remote participation was not available in all years. Furthermore, we could not confirm that the remote participation list were people attending rather than registered.

3.1.2. Not traceable

Participants were identified as End Users when their affiliation was not traceable. The affiliation was deemed not traceable when we either could not find the organisation or the person representing the organisation (i.e. the person does not show any connection to a specific organisation based on further research). It occurred that an organisation's name is common and referred to multiple organisations. If it wasn't not clear to which organisation it referred, the participant was also marked as an end user. There were also some linguistic barriers such as translated organisation names (e.g. when a Spanish organisation translated their name in English) which

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[2] https://www.intgovforum.org/multilingual/.
[3] A full overview of the data management steps is available upon request.
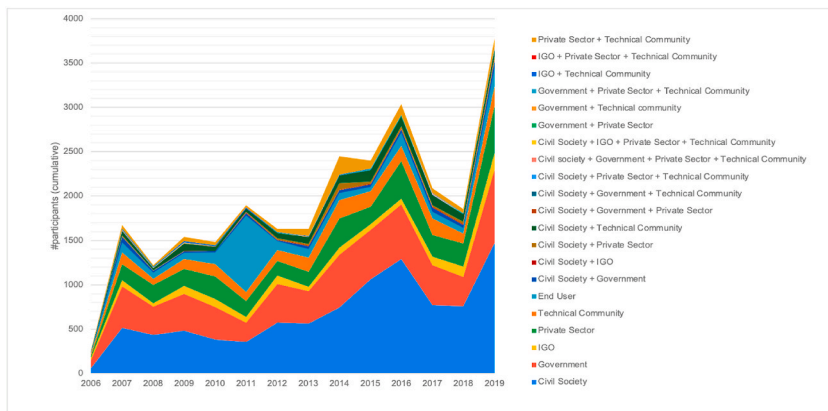
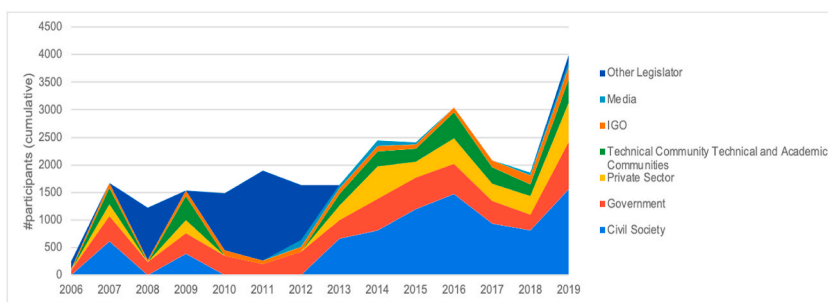**Fig. 1.** Ig framework stakeholder group categories across years.

Fig. 2. Igf stakeholder groups across the years.

then couldn't be traced. Similarly, foreign keyboards lead to inability to trace certain organisations. However, these participants were not excluded from the study, save the acknowledgement of their vested interest. Their presence also does not disrupt the graphs and data on stakeholder mobility based on affiliation, because they would remain an End User if they stayed within the same organisation, or they would change affiliation and that would be reflected accordingly. Of the 26.935 IGF participants, in our dataset, 2.065 or 7.67% have been marked as End Users.

3.1.3. Double hats

There are participants who registered multiple affiliations per registration or registered multiple affiliations across multiple registrations. Each of these organisations were acknowledged as this is how participants self-identified themselves. However, in the former case where registration encompassed multiple affiliations, only one stakeholder group was assigned. This will be further discussed in Section 4.2.

3.1.4. Civil society

Due to the purpose-focused framework which focuses on affiliations and not individuals, participants who self-identified as universities were assigned their status based on the affiliation. However, no distinction was made between academic and student, therefore, Civil Society data referring to academia also includes students.

4. Findings

4.1. Stakeholder allocation at IGF

In the first part of our analysis we provide an overview of our categorisation of participants for the following stakeholder groups: Civil Society, Government, IGO, Private Sector, Technical Community and intersecting stakeholder groups.

Compared to the original classification in the IGF registration, ours is more granular. It provides a rich picture of the participation of different stakeholder groups. By classifying some organisations at the intersection of two or more stakeholder groups, we also acknowledge the fluidity and hybridity of interest and identity representation at the IGF. Our classification is also more consistent, while the available stakeholder categories differed per year at the IGF.

Fig. 1 and Table 2 show that civil society has consistently been the largest stakeholder group present at the IGF: 33,5% civil society

Table 1

Different models of 'multistakeholderism'.

NETmundial (NETmundial, 2014)	ICANN (ICANN, 2021)	W3C (W3C, 2021)	ITU (Telecommuniation Union, 2021)	IETF (Internet Engineering Task Force, 2021)
Government	Government		Government	
International Organisations			International organisations	
Private Sector	Business & Commerce	Small and medium enterprises	Companies	
Civil Society	Academia & Civil Society	Research organisations		
Academia			Universities	
Technical Community	Tech & Security			
	Country & Regions		Regional organisations	
	End Users	Individuals		Any interested individuals

Table 2

IG framework stakeholder group total.

Internet Governance Framework Stakeholder Group	% participants	# participants
Civil Society	33,5	9.460
Government	23,7	6.059
IGO	4,6	1.121
Private Sector	12,3	3.371
Technical Community	7,3	1.918
End User	7,7	2.065
Civil Society + Government	1,6	443
Civil Society + IGO	0,4	102
Civil Society + Private Sector	0,8	250
Civil Society + Technical Community	3,9	1.019
Civil Society + Government + Private Sector	0,1	18
Civil Society + Government + Technical Community	0,0	5
Civil Society + Private Sector + Technical Community	0,0	5
Civil Society + Government + Private Sector + Technical Community	0,1	20
Civil Society + IGO + Private Sector + Technical Community	0,1	11
Government + Private Sector	0,1	25
Government + Technical community	0,1	17
Government + Private Sector + Technical Community	0,0	2
IGO + Technical Community	0,4	100
IGO + Private Sector + Technical Community	0,1	9
Private Sector + Technical Community	3,3	915
Total	*100*	*26.935*

only; 40,5% civil society including intersecting groups (see Table 1). For an analysis of the civil society representation according to our purpose-driven typology, we refer to the first article published on the basis of this dataset (Tjahja et al., 2021). Governments are the second largest group attending, with 23,7% of participants originating from this sector (25,7% incl. intersecting groups). As we have not finished coding the geography of the IGF participants, based on location of organisations, we cannot provide detail on which governments have been best represented at IGF yet (see Table 3) (see Fig. 2).

Private sector comes in third place, with 12,3% (16,9% incl. intersecting groups). They represent a vast range of Internet services - and a surprising number of law firms and consultancies. 7,6% of participants represent the technical community, but there is a larger presence of other stakeholders who contribute to the development of the Internet infrastructure or standards, but from the perspective and aim of another stakeholder group, thus in our dataset resit at the intersection with technical community (8% at intersection, or 15,6% in total). Thus, for instance, Internet infrastructure providers and telecommunications companies have for the most part (unless clearly publicly owned) been classified as private sector + technical community; while organisations such as Internet Society were deemed civil society + technical community.

Finally, of the core stakeholder groups, there is least participation of IGOs, with 4,6% representation (5,6% incl. intersecting groups). They represent different agencies within the United Nations, African Union, European Union, Council of Europe, OSCE and more. End Users as unidentifiable and unaffiliated participants constitute 7,7% of our data.

In order to respond to our first research question "[h]ow have stakeholders identified themselves in comparison to their allocation in the internet governance stakeholder framework, and where do the discrepancies lie?", we provide an overview of the options for self-identification through the IGF registration form.

The form has changed from year to year, with a very limited set of options available in 2006, 2008, 2010 and 2011. In those years, the vast majority of participants registered 'other' (other than government and IGO, that is). For instance, in 2011, 1.632 of 1.897 (86%) participants registered as 'other'. As our analysis above shows, this is to be expected (over the years, the stakeholder groups 'government' and 'IGO' have constituted 28,3% of IGF participants). We note positively that the registration form has become more comprehensive over time.

Table 3
IGF stakeholder groups per year.

Year	Stakeholder Group						
2006		Government			IGO		Other
2007	Civil Society	Government	Private Sector	Technical and Academic Communities	IGO	Press Media	
2008		Government			IGO		Other
2009	Civil Society	Government	Private Sector	Technical and Academic Communities	IGO	Press Media	
2010		Government			IGO		Other
2011		Government			IGO		Other
2012		Government			IGO	Press Media	
2013	Civil Society	Government	Private Sector	Technical Community	IGO	Press Media	
2014	Civil Society	Government	Private Sector	Technical Community	IGO	Press Media	
2015	Civil Society	Government	Private Sector	Technical Community	IGO	Press Media	
2016	Civil Society	Government	Private Sector	Technical Community	IGO		
2017	Civil Society	Government	Private Sector	Technical Community	IGO	Media	
2018	Civil Society	Government	Private Sector	Technical Community	IGO	Press/Media	
2019	Civil Society	Government	Private Sector	Technical Community	IGO	Press/Media	Legislator

Table 4
Comparison of self-identified and recoded IG stakeholder group (basic categories).

(Self-Identified) IGF Stakeholder Group	(Recoded) IG Framework Stakeholder Group					
		Civil Society	Government	IGO	Private Sector	Technical Community	End User
	Civil Society	73,0%[a]	2,3%	0,5%	3,7%	3,1%	5,5%
	Government	0,4%	98,5%	0,1%	0,2%	0,0%	0,3%
	IGO	6,8%	3,0%	74,4%	1,5%	0,7%	1,5%
	Private Sector	10,5%	1,3%	0,1%	56,6%	4,7%	5,6%
	Technical Community	25,5%	4,1%	1,0%	8,2%	35,8%	6,6%
	Media	80,3%	1,9%	0,2%	6,4%	0,0%	5,9%
	Legislator	0,0%	92,6%	7,4%	0,0%	0,0%	0,0%
	Other	35,7%	2,9%	0,5%	17,4%	9,5%	24,3%

[a] % match of self-identified and recoded stakeholder group.

We find that government officials' IGF self-identification and our IG stakeholder recoding match closely (98,5%). Similarly, our coding of media and legislator corresponds in most cases with stakeholders' self-identification (81,6% and 92,6% respectively), followed by IGO (74,4%) and civil society (73%). Stakeholder categories which we define/understand quite differently than participants' own assessment are private companies and organisations in the technical community.

Regarding private sector, we consider that 10,5% of private companies play a more significant civil society role than they themselves report. The data presents a diverse picture of participants whom we recoded from private sector to civil society, including academics. Stakeholder categories are not entirely self-explanatory it seems. Furthermore, 17,8% were recoded as private sector + technical community (not shown in Table 4) to distinguish these companies' role in developing the Internet infrastructure, from those providing Internet services.

As far as the technical community is concerned, we considered 25,5% to have a more significant civil society role than they report. In many of these cases, the recoding is due to the 2007 and 2009 registration forms mentioning 'technical and academic communities' as one group, while 'academia' in our framework is part of civil society. In addition, as explained above, we sought to provide a more granular picture within the technical community by identifying intersections with other stakeholder groups (from within the self-identified technical community stakeholder group, we recoded 10% as civil society + technical community and 4,8% as private sector + technical community).

Finally, that 24,3% of participants were identified as End Users in Table 4 tells us that we managed to trace and recategorize ('recuperate') 75,7% of participants who registered as 'other' in 2006, 2008, 2010 and 2011.

4.2. Participant re-attendance, mobility, and double hats

A common concern raised is that the same people always attend the IGF and therefore the IGF is less inclusive than it aims to be and thus lacks representativeness. This statement is reflected in contemporary discussions where the IGF work seeks to pursue outreach to include new people/participation at the IGF.[4] Our initial assumption was that due to the nature of changing geographical locations, there are many one-time attendees who are only able to attend the IGF when this is being held in their country or region, and therefore, there may be many first-time participants (newbies) who do not return for future editions of the IGF. This section seeks to address the

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[4] See, for example, the MAG Working Group on IGF Strengthening and Strategy (22 January 2021). Available from: https://www.intgovforum.org/multilingual/filedepot_download/10447/2458.
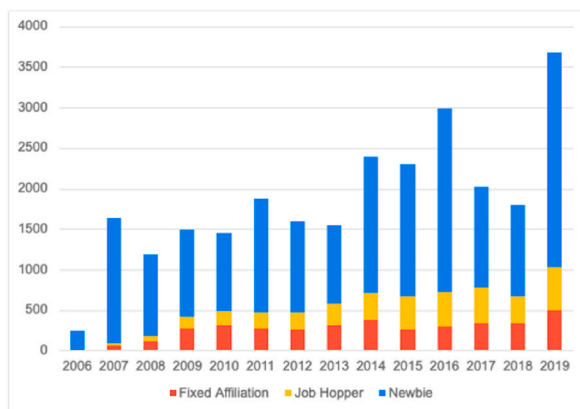
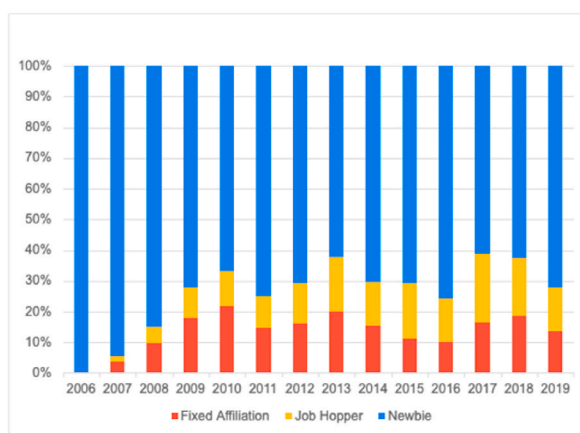**Fig. 3.** Participant re-attendance at the IGF.

Fig. 4. Participant re-attendance at the IGF (%).

research question "Have individuals sustained their participation and maintained their roles during different editions of the IGF?".

In Fig. 3, we calculated participants' re-attendance at the IGF and marked their affiliations. The top segment of the columns reveals first-time participation (newbie), the bottom presents returning participants with the same affiliation (fixed affiliation), and the middle segment indicates returning participants who have changed affiliation at least once throughout the course of their IGF participation (job hopper). This graph conveys that every year first-time participants exceed the amount of returning participants. Fig. 4 confirms our finding that over 60% of participants each year are first-time participants whereas only 40% of attendees are re-attending participants. However, in terms of numbers, participant re-attendance is increasing steadily over time (Fig. 3). We believed that there were many attendees who were first-time participants due to geographic proximity, yet the data conveys that this may not be the case. Indeed, the last three years of physical IGF attendance (2017 in Switzerland, 2018 in France and 2019 in Germany) were held in Europe, but there were no significant increases in re-attendance. At earlier events (2014 in Turkey, 2015 in Brazil and 2016 in Mexico), higher attendance was noted (higher than 2017 in Switzerland and 2018 in France) and similar re-attendance numbers. The data therefore shows that the geographic dispersion of participation in the IGF is not focused on Europe (which may lead us to question the 'Western-centric' nature of IG). The IGF can thus be seen as an open space that encourages participation from wider groups of individuals. The fact that the number of newcomers ('newbies') is consistently more than the number of returning participants is, however, a mixed blessing. On the one hand it means that the IGF is opening its doors to engage with more stakeholders in this increasingly expanding policy space, and on the other it reveals a need to ensure that they can actively participate in the events, whilst finding value in ongoing participation. Further research would need to be conducted regarding re-attendance to assess the limitations of participation, such as financial, geographical, lack of interest or moving to other forums.

From the re-attending participants, we differentiated between those who have fixed affiliations and represented the same organisation throughout their IGF participation (bottom), and those who changed their affiliation (middle).[5]

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[5] Those who have double hats were coded as fixed affiliations as long as at least one affiliation remained the same. Once there was no consistent one affiliation, they are indicated in the graph as a job hopper.
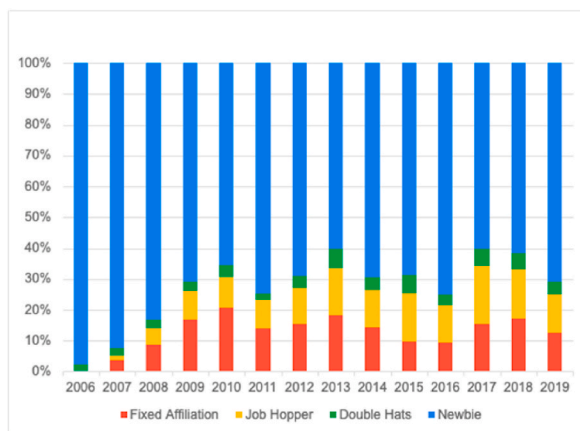
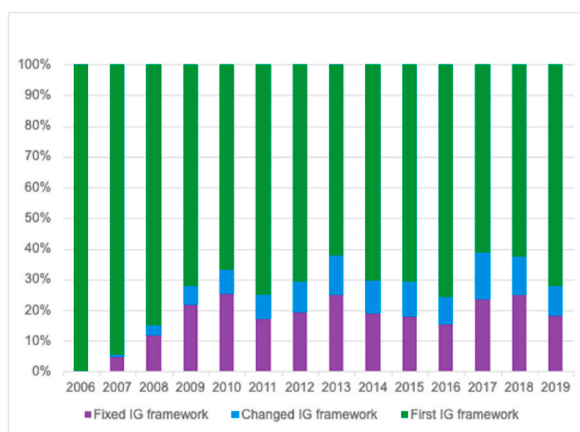**Fig. 5.** Participant re-attendance at the IGF including double hats.

Fig. 6. Stakeholder Mobility between first and any follow up attendance.

Here we sought to specifically understand participant mobility to address the individuals who did not maintain their roles during different editions of the IGF and changed affiliation. Fig. 3 shows that from the second IGF onwards, participants changed roles, and this has steadily increased over time. In Section 4.3 we will further develop our analysis by looking beyond affiliation and reflect on mobility across stakeholder groups.

The "double hats" in the data also need to be addressed. As mentioned by Radu (2019), it is common practice for IGF participants to hold multiple affiliations, this is marked in green in Fig. 5, which illustrates the number of participants who registered multiple affiliations.[6] Due to the nature of the registration form of the IGF, registering multiple affiliations is only possible by writing out multiple affiliations in appropriate part of the registration form. One can only identify with one stakeholder group. However, participants with double hats can have different stakeholder 'identities'. Due to the limitations inherent in the structure of the registration forms, research into "double hatting" is by nature ambiguous because it may be that participants did not register all of their affiliations. Furthermore, the limitation of assigning only one stakeholder group to each registrant means that the raw data from IGF participant lists does not capture all 'hats' in the room. Finally, as stakeholder group identification is independent of the individual registrant's affiliation, inaccuracies may have entered into the declared stakeholder groups. These do have an impact on the participation statistics.

This section sought to answer the question whether individuals maintained their roles during different editions of the IGF, and we have learnt that contrary to popular belief, up to 60% are first-time participants, and of the 40% returning, increasingly participants are moving across the ecosystem and participating with different affiliations.

The next section will therefore look more closely into the data relating to stakeholder mobility and seeks to analyse whether participant mobility crosses stakeholder groups.

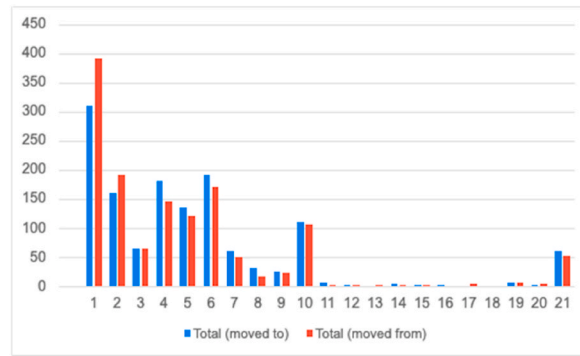[6] This may include more than two affiliations.

Fig. 7. Stakeholder Group Mobility (moving to and moving from).

4.3. Stakeholder group mobility

Registration according to stakeholder groups has traditionally been a criterion at the IGF that informs multiple participation and inclusion processes such as participation/attendance statistics, speaker representation and requirements. These criteria aim to foster legitimacy of the multistakeholder process and further develop the IGF programme.

This section seeks to address the last research question "Have stakeholders moved between stakeholder groups?" and has a closer look at the data of participants with changing affiliations, specifically focusing on the IG framework assignments and how stakeholders move between stakeholder groups.

In Fig. 6, we see that up to 40% of participants are returning participants of which the majority stay with their previous stakeholder group (In comparison with Figs. 4 and 5). we can see that mostly people stay within the same stakeholder group, but there is a clear percentage (in the middle segment in Fig. 6) that indicates stakeholder group movement.

In Fig. 7, we show an overview of how many participants moved to and from a stakeholder group. Where across stakeholder groups there is relatively steady mobility in and out of a stakeholder group, the civil society stakeholder group is most fluid. The following graphs (Fig. 8 and Fig. 9) investigate in more detail on the individual stakeholder group mobility, identifying specifically which stakeholders move to which stakeholder groups. While "End User" as a stakeholder group has been included in the graphs to provide an overall view of the graphs, they will be excluded from the analysis due to the "non-traceable" entries that are included in this stakeholder group (see limitations in Section 3). However, their presence in the graph does indicate that those participants moved jobs, but not necessarily stakeholder groups. In general, End Users mostly moved to Civil Society.

As mentioned above, the Civil Society stakeholder group has a lot of mobility. Fig. 8a shows that Civil Society moved most to the Private Sector (67 people). Individuals moving into the Civil Society stakeholder category were mostly from Government (56). This potentially indicates that the Private Sector attracts Civil Society specialists. Concerning government actors, it is possible that those working in this sector are often more inclined toward public services, and therefore move into the civil society sector once their mandate in government has ended. However, participants from the Government group also moved to IGOs (23) and the Technical Community (22). Participants from IGOs (23) tend to move into the Government stakeholder group. This is understandable because IGOs are by nature comprised of individuals with public sector experience; therefore, that affiliation may provide a connection between those two spaces (Fig. 8b). Fig. 8c indicates a mutual mobility direction between Government and IGO, thus exchanging spaces. Another close relationship exists between IGOs and Civil Society (going into IGO is 20, going into civil society is 17). This is understandable due to the nature of some of the projects IGOs had established that were present in the dataset and marked as "IGO + Civil Society). These include initiatives such as the No Hate Speech Movement, led by the Council of Europe, but executed by volunteers. Private Sector mobility data show that Civil Society and the Technical Community interact with the Private Sector quite prominently. The Technical Community has most mobility to Civil Society (45), however following them, Technical Community stakeholders move to Private Sector (28). The latter is unsurprising due to the for-profit nature of the Private Sector and Technical Community.

Returning to the question "Have stakeholders moved between stakeholder groups?", we can establish that participants change not only their affiliations, but also their stakeholder groups, which causes mobility across the wider IG ecosystem (see also Radu, 2019, pp. 179–181). Notably, it seems that there is an equal distribution of movement between stakeholder groups, meaning that similar numbers of individuals have moved between two stakeholder groups over time. Hence, we see fluidity across stakeholder groups. This raises the question regarding the legitimacy of the division of stakeholder groups according to the baseline definition of multistakeholderism. In other words, when stakeholders cross between different stakeholder groups, what are the 'meanings' behind the categorisations?

5. Discussion/conclusions

The results of our analysis help contribute to deepening the broader discussions raised in the literature review section above. These broader discussions emphasise the importance of multistakeholder approaches to governing the complexities of the internet. Different models of multistakeholderism exist, and continue to evolve, and with this paper, we hope to provide insights into some of the
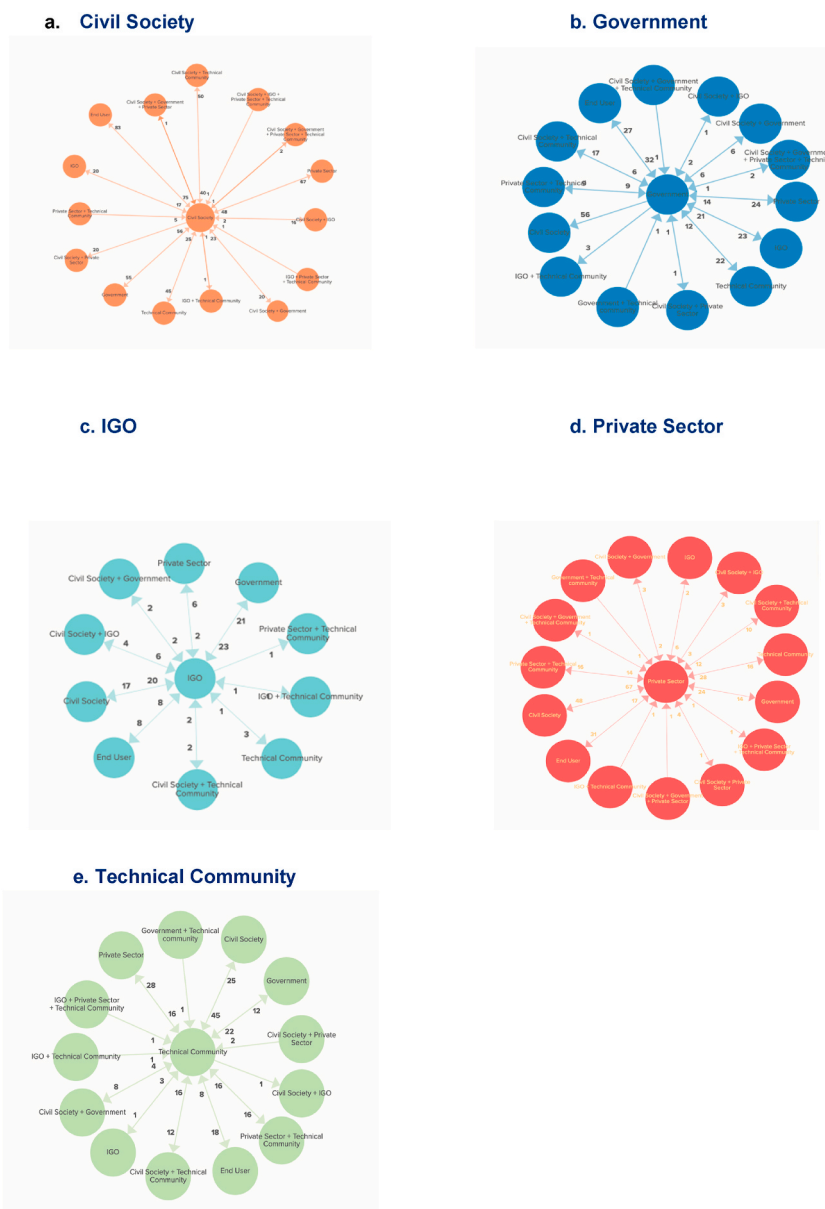
a. Civil Society

b. Government

c. IGO

d. Private Sector

e. Technical Community

Fig. 8. Social network analysis of stakeholder group mobility (civil society).

reflections on how to improve structures and processes to ensure that the ambitions of multistakeholder approaches are successful in achieving their aims: effective participation in legitimate and efficient discussions around complex topics that provide the opportunity to reach common understanding. This is both an academic and a policy-relevant ambition. Currently, political discussions around the impact of multistakeholder participation in the IGF have led to a broader debate on the aim, ambition, and desired outcomes of multistakeholderism in this forum. In the ways we have discussed above, they all address issues of participation in this multi-stakeholder environment. Our contribution to this debate is structured by a critical reflection on understanding which types of stakeholders participate in IGFs, and how this might evolve over time. In order to do this, we identified the categories of actors/stakeholders who had participated in the IGFs from 2006 to 2019 and mapped out these to understand how they have evolved over time.

Our first question concerned the (re-)engagement with the IGF: we asked, is there a sustained community of actors that come together at the IGFs, and is there a sense of continuity in their engagement therein? Our data show us that an overwhelmingly large number of participants to each IGF are newcomers ("newbies").

The second key question we addressed was whether it becomes useful to structure debates in the 'IG community' around concepts of 'stakeholder groups', as the ones that are used in IGF registration forms – we looked at mobility, job hopping and double hats in order
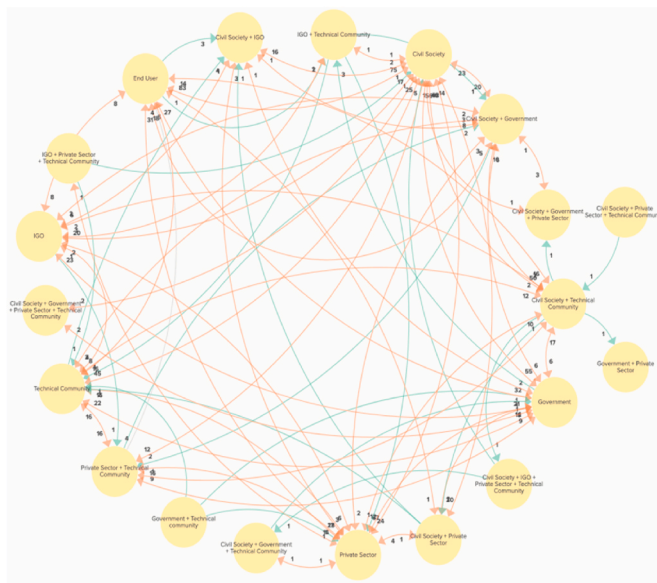
Fig. 9. Social network analysis of stakeholder group mobility.

to address this question. Here, we emphasise the representation of different stakeholder groups and address questions concerning the success of the multistakeholder model as a participatory process. One of the points for discussion we can draw from our analysis is: does IGF actually enable the creation of a transnational elite or epistemic community that in fact reduces the ideas that drive the nature of the engagement of diverse groups in the internet governance discussions (Chenou, n. d.; Haas, 1975; Stone, 2008)? Fig. 9 (below) clearly shows the interactions and the engagements across different stakeholder groups, according to the framework set out by Tjahja et al. (2021). In this figure, we show the mobility of different individuals across the different groups, identifying mobility across groups (highlighted in orange) and mobility to specific groups (highlighted in green). It reveals that there is no given 'path' for individuals across these groups (i.e. not all government actors move into the private sector, for example), but that there is a vivid fluidity across all stakeholder groups.

The balance between newbies and established actors in this sphere provides for big challenges in making effective use of the IGF as a forum for discussion, and eventually a space for concrete policy outcomes: similar to all democratic practices, awareness of the practical limits of the institution needs to be 'learned'. The IGF does not aim and is not designed to be a place for making global rules on how to govern all the diverse aspects of the Internet. It is best thought of as a learning exercise – a space where different actors can develop common understandings of how to deal with Internet governance. This is done in a space that is deliberately designed to avoid the trappings of the multilateral state system, where issues may be hijacked by certain states in order to achieve broader political goals.

Our research set out to challenge some preconceptions that we had about the IGF: notably, that it was a closed talking shop for established actors and that there was a large amount of local support for IGFs that would then 'disappear' when the IGF moved to another continent. Our data reveal neither of these to really be the case.

One of the key issues to bear in mind with our above analysis is the availability of reliable data. The data analysis carried out above reveals some of the limitations of analysing the available data, including reliability and comparability of data sets (onsite IGF attendance is managed by the host country). However, extensive efforts have gone into ensuring that the data are cleaned up, checked, and made as reliable as can be. We do not make claims, however, towards creating a perfect dataset. We do, however, aim to provide these data to encourage reflection and discussion on key issues that we have mentioned above. Bearing these limitations in mind, the data still reveals an incredible richness of detail and opportunities for learning about the nature of multistakeholderism at the IGF.

In order to dig deeper into this research field, it is imperative that we build upon qualitative research agendas, and develop mixed-method research programmes, combining our data analysis with (non-) participant observation and in-depth interviews with different stakeholders. Understanding how the IGF is 'experienced' by participants and how their 'learning' is transmitted across different actors and stakeholder groups would be crucial to investigate in light of our findings. This would help us understand and assess the motivation and representativeness of the participant across stakeholder groups by conducting interviews with stakeholders who have changed affiliation and stakeholder groups across time. Additionally, with the onset of the COVID pandemic and sustainability considerations, and the increasing virtual (i.e. at a distance) engagement of individuals in recent IGFs, a useful avenue of research may wish to investigate the link between onsite and virtual participation at IGFs.

Data availability

Data will be made available on request.

Acknowledgement

Annex A. Internet Governance Stakeholder Framework Codebook

This codebook informed our decision-making in assigning our codes to organisations. It continued the work started in Tjahja et al. (2021), retaining the same basic stakeholder categories and definitions: end user, government, intergovernmental organisation, private sector, civil society and technical community. However, while Tjahja et al., 2021 coded civil society in the IGF participant list according to a Purpose-Driven Typology, this paper codes the entire participant list.

In our Internet Governance Stakeholder Framework, we acknowledge that organisations and especially partnerships can belong to multiple stakeholder groups. This opens up the possibility for many combinations of stakeholder groups (e.g. civil society + government; civil society + government + private sector; private sector + technical community). We inductively identified 15 stakeholder combinations beyond the initial 6 stakeholder groups, although theoretically even more combinations are possible.

In the list below we provide the definitions of the basic stakeholder categories and definitions, and some examples of stakeholder group combinations.

Basic stakeholder categories

End User.
Definition: The code *End User* refers to individuals or non-technical users whose activities the IG ecosystem is designed to support. Participants whose organisation could not be traced were also listed as end user.
Example:
Individual.
Independent.
N/A.
Myself.
Sponsored by.
Delegate.
Ambassador.
Government.
Definition: The code Government refers to public bodies from different policy areas, branches and policy levels who seek to represent the public sector. As we have no possibility to determine whether the political party might be serving in government, and is likely to be part of the legislative branch of a country, we opted to include political parties in this stakeholder group.
Example:
Government departments.
Councils.
National bodies.
Military.
Police.
Cities.
Legal institutions.
Political parties.
Intergovernmental Organisations.
Definition: The code Intergovernmental Organisation refers to public organisations that are defined by an International Treaty or agreement between states. Members are traditionally states.
Example:
Council of Europe.
European Commission.
East African Community.
UNDP Country Office in Armenia.
Pacific Community.
UN Major Group for Children and Youth.
Private Sector.
Definition: The code Private Sector refers to initiatives that have a for-profit aim (market orientation or entrepreneurship).
Example:
(Law) Firms.

Banks.

Money Transfer Organisations.

Limited Companies.

Corporations.

Chambers of Commerce.

Insurance companies.

Consultancies.

Industry Associations.

Entertainment companies.

Civil Society.

Definition: The code Civil Society refers to the space between market and state. In our purpose-driven typology, we distinguish between civil society actors with the following aims: coordination, end user group representation, knowledge/capacity building and problem-driven advocacy. Academia and media/press are categorised as knowledge/capacity building. As we are unable to accurately distinguish between state, public and private media, all news organisations are listed as civil society.

Example:

Not-for-profit organisations.

Non-governmental organisations.

Youth organisations.

Groups representing specific minorities.

Libraries.

Universities.

Media organisations.

Movements.

Activists.

Technical Community.

Definition: The code Technical Community refers to initiatives that are focused on the governance of the internet's infrastructure.

Example:

Registries.

Registrants.

Standardisation organisations.

Network Information Centers.

ICANN (bodies).

Combinations of stakeholder groups: examples.

Civil Society + Government/IGO.

Definition: The code Civil Society + Government refers to initiatives that are supported by a government. Similarly the code Civil Society + IGO refers to initiatives that are supported by an intergovernmental organisation.

Example:

European Internet Forum.

National Research Council of Italy.

Relawan Teknologi Informatika dan Komunikasi

No Hate Speech Movement.

IGF (national and regional groups).

Dynamic Coalitions.

Civil Society + Private Sector.

Definition: The code Civil Society + Private Sector refers to for-profit initiatives focused on corporate social responsibility by providing services to the benefit of the community.

Example:

Social enterprises.

Trade unions.

Civil Society + Technical Community.

Definition: The code Civil Society + Technical Community refers to initiatives focused on the governance of the internet's infrastructure with a civil society aim.

Example:

Internet Society (Chapters).

DotKids Foundation.

Private Sector + Technical Community.

Definition: The code Private Sector + Technical Community refers to for-profit initiatives that are focused on the governance of the internet's infrastructure.

Example:

Telecommunications Companies (when private).

Internet Infrastructure Providers.

Internet Service Providers.

Cloud Computing.

Data Centers.

Private Sector + Government.

Definition: The code Private Sector + Government refers to public-private partnerships or for-profit initiatives that are supported by a government.

Example:

Cybersecurity Association of China.

Geological Survey of Brazil.

Guadalajara Digital Creative City.

Tech Against Terrorism.

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