





Greenwich papers in political economy

The multistakeholder model of Internet governance, ICANN, and business stakeholders practices of hegemonic power

Dr Aaron van Klyton, University of Greenwich Dr Mary-Paz Arrieta-Paredes¹, University of Greenwich Mr. Ayush Soomaree, MBA IB, University of Greenwich

Working Paper: GPERC64

Year: 2018

¹ Corresponding author: M.ArrietaParedes@greenwich.ac.uk

Abstract

This research examines the relationship between the Internet Corporation of Assigned Names and Numbers (ICANN) and three groups of business stakeholders who participate in the multistakeholder model of Internet governance. The authors argue that ICANN's use of 'participatory evangelism' serves as a device for the production of hegemonic power within the Internet governance model. By performing textual linguistic analysis on archival transcripts of triannual meetings from 2012 until 2016, the study operationalises hegemony as a dependent variable by linking stakeholder participation to the Internet governance policy-making agenda. By first identifying a 'master variable' that characterises the most general understanding of the data, statistical methods were used to construct a model with hegemony as a response variable. Furthermore, Analysis of Variance and Panel Data models were applied to measure variation in tone across the three groups of business stakeholders to understand how hegemony is produced. Our findings show that by using language that expresses hesitation and uncertainty, but at the same time is resolute with less complex discourses, the business sector stakeholders contribute to the production of hegemony that would theoretically benefit ICANN. This research underscores the importance of language and discourse as a driver of power within the Internet Governance.

Keywords: hegemony, Gramsci, Internet governance, multistakeholderism, DICTION 7.0, participatory evangelism

JEL codes: L86, P16, O33

1. INTRODUCTION

ICANN meetings are all about participation, collaboration, and finding solutions to the small – and large – problems that the Internet constantly faces. As a meeting attendee you could be from almost any profession and from any corner of the planet. ICANN is set up to allow everyone affected by its work – and that is pretty much everyone – to have a say in its processes.

To ensure that the organization stays flexible and changes to meet the needs and demands of a rapidly changing Internet, not only do the SOs, ACs, and the Board go through regular reviews, but ICANN also maintains a strong culture of general public participation.

Typical attendees include government representatives, business managers, IT managers and consultants, DNS industry managers and experts, intellectual property managers, academics, and others invested in the continuing stable, secure and resilient operation of the Internet. End users are also well represented. If you prefer to participate remotely, there are a wide range of mechanisms that make that possible.

(Source: https://meetings.icann.org/en/about)

As the quote above illustrates, the multistakeholder model of Internet governance relies on participation and public engagement of policy advisory groups to support the leading organisation responsible for the Internet functionality, Internet Company of Assigned Names and Numbers (ICANN). Multistakeholderism is a principle of state and non-state actors deliberating and ultimately making policy decisions 'as equals' (Epstein and Nonnecke, 2016). The policy forums hosted by ICANN are open invitation globally regardless of the relationship of the participant to Internet governance. They are invited to have a say in the process. Mueller (2009) argues that participation in this political process does not necessarily yield desired results for participants. This article examines the relationship between two stakeholders of Internet governance, the umbrella group of the Generic Names Supporting Organization (GNSO) and the ICANN. This study argues that the notion of operating as equals obfuscates an ongoing power struggle within this model. Before 1998, the set of functions for Internet control were situated within the US Department of Commerce. In 1998, these functions culminated into a private organisation named known as ICANN. Chango (2011, p. 268) attempts to clarify the categorisation of the ICANN by claiming that its structure and reliance on private individuals and sectors could qualify it as both a civil society a governance entity. However, the ICANN should be viewed as multisectoral, due to the 'notable presence of commercial business among its core participants' (Chango, 2011, p. 268). Mueller (2009, p. 2) argues that with the ICANN's growth since its official inception in 1998, it has developed into a very large organisation with 'untrammeled authority' to make bylaws 'governing its processes and structures at will'. Mueller (2009, p. 2) argues that with the ICANN's growth since its official inception in 1998, it has developed into a very large organisation with 'untrammeled authority' to make bylaws 'governing its processes and structures at will'.

This study uses a mixed-methods approach and concepts around hegemony discussed by Gramsci and others to develop a framework for understanding the extent to which power complexities between the ICANN and the GNSO can be derived from language. Gramsci argues that language is tied to hegemony, because it embodies how the speaker makes sense of his or her world. Furthermore, language is the totality of 'determined notions and concepts and not just words grammatically devoid of content'

(Ives, 2004, p. 73). For Gramsci (1971, p. 450), language is metaphorical with 'respect to the meanings and the ideological content of the words used'. Hence, as Miglio (2013, p. 57) argues, 'language is politics because it affects the way people think about power.' Nowhere is this more true than in the archived transcripts of the ICANN's triannual meeting. Hence by analysing the political rhetoric and sentiment of the verbal exchanges at the ICANN meetings, this study intends to unpack the extent to which hegemonic power is articulated among these groups and what this has meant for their relationship to the ICANN and their positionality within the multistakeholder model. This approach fills a critical gap in our understanding of these groups of stakeholders and in part responds to Epstein and Nonnecke's (2016) call such meetings to be examined, thereby adding to the 'repertoire of critical perspectives' on the multistakeholder model.

Business users operate on the assumption that the Internet will remain stable and secure, and facilitate e-commerce experience and data storage ease. However, data collected and analysed for this study seem to confirm Mueller's (2010) argument that Internet governance is a contested space and the concept of multistakeholderism is plastic and malleable. Carr (2015) and others have argued that the forced collaboration among these stakeholders means that the inclusion of the expertise of nongovernmental organizations and the private sector generates greater acceptability and legitimacy for global public policy. However, what has not been attempted is the quantification of power within this model, particularly among the private sector. Hence, this research empirically investigates the transcripts of these actors to assess the extent to which the sentiment and rhetorical tone of these interactions are rooted in Gramscian hegemonic power. Methodologically, the study applies textual linguistic analysis and multivariate analysis to archival data to provide new methods for measuring Internet governance-related phenomena, contributing to closing the lacuna in the literature on the interface the articulation of power between the business stakeholders and ICANN.

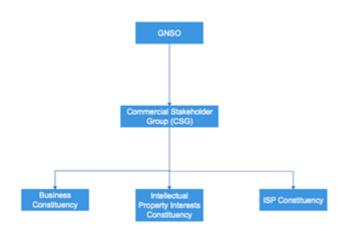
The rest of this paper is organised as follows: after a case background on the three groups that constitute the business stakeholders, the GSNO, CSG and the BC, the article then engages with the literature on hegemony through a Gramscian perspective, linking this with the concept of participatory evangelism. The next part is the methodology, where the authors discuss the 1st and 2nd stage tests. The findings and analysis follow, along with the conclusions and areas for further study.

2. CASE BACKGROUND

The GNSO was founded in 1999, one year after the founding of the ICANN. The GNSO is an umbrella group formulated within the ICANN structure 'to develop and govern public policies in relations to generic top level domains'

(https://gnso.icann.org/en/about/gnso-council.htm). From 1999 to 2009 it consisted of several constituencies among which was the Commercial & Business Users Group. The Generic Names Supporting Organisation presents itself as 'a function which brings a group of stakeholders together who shares the same interest and agenda'(https://gnso.icann.org/en/about/gnso-council.htm). These groups included: big business holders of trademarks, the registration industry, civil liberties-oriented public advocacy groups, and the Internet technical community, among others (Mueller, 2009). This an arrangement would in turn attract different types of constituencies within related fields to form a supporting organisation intended to help the

development of policies in respect to the Generic Top-Level Domain (gTLD). In this case gTLD is the internet domain name extension which consist of three or more characters i.e. (.com, .net, .info). The main objective of the GNSO is to ensure that the functionality of the gTLD is kept fair across the Internet. However the GNSO also ensures that the gTLD is used to promote competition & innovation across the different types of supporting organization, as this will broaden its network over internet governance worldwide. The organisation's main powers include appointing representation to the Board and initiating the policy development process regarding domain names. From 2010, the Commercial & Business Users Group. was restructured and renamed the Commercial Stakeholder Group (CSG). The CSG consisted of three main constituencies: Business Constituencies (BC), Intellectual Property (IP), Internet Service Providers (ISP). Figure 1: Organizational layout of the GNSO as an umbrella organisation.



The Commercial Stakeholder Group is the parent group which consists of the three main constituencies as stated above. Its mission is interrelated with the other groups; that is to represent the views of commercial internet users within the relevant IT sectors. The Commercial Business Users Constituency also known as BC represents the voice of commercial internet users within the ICANN. This group represents the position and interests of small medium enterprise (SMEs), multinational corporations, as well as trade enterprises within the GNSO's policy making process. The BC consists of approximately 60 members who represent industry clusters containing over 50,000 companies from around the globe and over 88% of these are SMEs. These groups participate in the tri-annual conference hosted by the ICANN and are participants in the multistakeholder model of Internet governance. Like any other private organisation, the GNSO council has a voting system in place which is used before implementing any new policies. However, Mueller (2009) pointed out that there was already an imbalance within their pre-2009 voting structure, as there were three main groups whose categories overlapped. Theoretically the GNSO, BC and the CSG are three distinct constituencies but in practice they operated as one large constituency, as 90% of the time they voted as one group. As a strategy, this gave them more voting power than the other constituencies within the contracting house party combined (Mueller, 2009).

According to Scholte (2011, p. 34) 'Civil society is taken here to entail a political space where associations of citizens seek, from outside political parties, to shape societal rules'. ICANN however has not officially defined civil society but places great emphasis on civil society participation within its community. The Non-Commercial Users Constituency (NCUC), which is among one of ICANN's institutional structures, acts within the GNSO and plays a key role within civil society participation. The NCUC however uses the civil society participation to act as a watchdog over ICANN. Through the process of dealing with transparency and free speech issues that arise, the NCUC ensures that the ICANN is following correct protocol. Hence, the NCUC keeps tabs on the ICANN through the GNSO council (Chango, 2011).

According to the ICANN, The GNSO is described as a driving function within the internet governance community and 'its ability and influence gives it the power to develop, modified and recommend change to the (gTLD) policy development process'

(https://icannwiki.org/Generic Names Supporting Organization). This is part to the discourse of participation in the triannual meetings, which Mueller (2009) articulates as participatory evangelism. He points out that the asymmetry within the relationships of the multistakeholder model brings with it a plasticity around who or what can be regarded as a stakeholder and challenges the actual power such titles entail (Mueller, 2010). For example, the ICANN can choose to ignore policy recommendations put forth by advisory committees and supporting organisations (Mueller, 2009). Despite this power (or maybe because of it), the ICANN sought to engage with other stakeholders under the guise of participatory evangelism and generated discourses of participation and open consensus building at every opportunity. Scholte (2011, p. 35) points out that the term civil society in multilateral discourse has been promoted as a way to 'discipline dissent and promote a false legitimacy for an oppressive capitalist order.' Participatory evangelism as a construct opens the door for a critical discussion on the extent to which power is shared and at the same time it serves as an invitation to explore different methods of analysing this ongoing issue (for a social network application, see Chenou, 2014). Padovani and Pavan (2007, p. 100) call for greater diversity on debates about Internet governance to ensure that multistakeholderism does not become simply 'a rhetorical exercise aimed at neutralizing criticism.' The institutionalisation of Internet governance could not have been achieved without consent from various stakeholders and other actors. from academics to policymakers (Chenou, 2014). Hence, there is a clear connection with between 'the creation of institutions and hegemony' (Cox, 1981, p. 137). This paper fills an important gap in the quantification of these relationships in internet governance. The paper is a first attempt to explicitly analyse and differentiate among the three main business sector stakeholders within ICANN.

Research Question 1: Is there a relationship between hegemony and participatory evangelism in Internet governance?

Research Question 2: Is there a difference between the tone and rhetoric among the three business sectors of the multistakeholder model?

3. THEORETICAL FRAMEWORK

Introduction

This article argues that Internet governance as a driving force of globalisation (DeNardis, 2009) creates or contributes to the construction of hegemony. Robinson (2005, p. 561) argues that there is a need to view hegemony not as states exercising power but as 'social groups and classes' exercising power through states and other institutions. Unlike coercion, hegemonic power relies on 'convincing individuals and social classes to subscribe to the social values and norms of an inherently exploitative system' (Stoddart, 2007, p. 199). The persuasive power of hegemony includes an acceptance of the social order as 'inherited from the past and critically absorbed' (Gramsci, 1971, p. 333), producing a moral and political passivity' that permits the anchoring and expansion of the prescribed social order from the dominant historic bloc. Passivity within the social order also breeds consent, a key component of hegemonic power.

This current paper has positioned social groups and their particular configurations at the centre of the discussion to understand the degree to which Internet governance has become anchored in contested power relationships. This is a departure from the wellknown discourse on the limits of nation-state control of the Internet (Holden and van Klyton, 2016; Hill, 2014; Mueller, 2010). By doing so we hope to situate hegemony as a process and simultaneously as a system of power relations and to shed light on the extent to which the social interactions of these business groups create and reproduce hegemonic power and for whom. Stoddart (2007, p. 87) argues that hegemony and counterhegemony 'exist in a state of tension, each giving shape to the other.' Within this context, we employ the theoretical framework of hegemony referred to by Cox (1981, p. 129) as a form that calls institutions, social and power relations 'into question by concerning itself with their origins and whether they might be in the process of changing.' In this context, hegemony becomes an 'opinion activity', which serves to create an order that is 'based on values and understandings that permeate the nature of that order' (Bieler and Morton, 2004, p. 87). Participation is tied to consent and, according to Gramsci (1971), is necessary to construct a 'historic bloc'. Once consent is given, the dominant institution becomes established. Golding (1992, p. 107) argues that an established cohesively-inscribed group is the cornerstone for hegemony, where consent is derived from like-minded groups who would agree 'either tacitly or explicitly to being led', with the development of social cohesion occurring around particular sets of ideas/tropes/discourses. As Elah and Okerere (2014, p. 118) argue, the key ingredients for hegemony is an ideological and social logic that becomes 'rooted in consensus, manifested in legitimacy and universally accepted,' while supported through core material. Further articulating cohesively-inscribed groups, Morton (2007, p. 93) argues that the capitalist classes articulate the 'framework for action' and the citizens 'come to believe that authority over their lives emanate from the self.' Holding out self-representation through participation is part of participatory evangelicalism in internet governance.

Mueller (1999) argues that the 1998 beginning of the ICANN evolved from at least four years of failed attempts to privatise Internet governance. However, in terms of the ICANN as an ideal, we can label this group as the historical bloc. As the organisation privatised in 1998, it retained significant control over the internet protocols (DeNardis, 2009). By inviting various stakeholders to join in the development and 'shared ownership' of the Internet, the ICANN carried on its modes of production internationally on the backs of new entrants to the multistakeholder model. Hence, the ICANN benefited from this participatory approach: One, the ICANN satisfies its own needs for legitimacy and, second, it allows the organisation the opportunity to avoid full accountability (for more on accountability, see Chango, 2011). Through the participatory evangelism, the idealised interests of the ICANN, as the dominant class, become the accepted and universal interests of society (Elah and Okereke, 2014). Notice the description of the ICANN meetings as presented by ICANN on its public documents.

What are the benefits of attending?

- When you attend, either in person or remotely, you are better able to:
 - Understand how Internet policies are created and how the Internet works.

- Gain knowledge about the main issues facing the Internet today and in the near future.
- Learn and take the information back to your organization.
- Enhance ICANN's work by participating in all key developments.

(Source: https://meetings.icann.org/en/about)

The effect is twofold. On the hand, this reinforces the message of participation; on the other hand, it describes the diffusion process of the ICANN's social order (particularly objective c below), interlinked with institutional practices and norms, and then strengthened through regular participation in the forums by the dominated classes, either physical or virtual. The question remains as to how long the participants believe and maintain the intersubjective identity supportive of the ICANN's idealised shared power and why would business stakeholders be involved in an hegemonic project. Here it becomes interesting to see if and how the GNSO, BC and the CSG begin to kick against such an inter-subjectivity. Showstack Sassoon (1987) argue that it is through 'performance and ideological acquiescence' that a hegemonic order is maintained. Following Boothman (2008, p. 208), we suggest that hegemony brings with it an emergence of alliances, formal and informal. Furthermore, hegemony does not operate 'in a uniform manner across the globe' (Robinson, 2005, p. 568), nor does it affect stakeholders equally. It is within this context that consensus building must occur. What we expect to see in the ICANN meetings are interactions between the GNSO, BC, and the CSG and the ICANN that represent uneven. fragmented power relationships that are in a constant state of flux. We will turn to the literature on hegemony to develop a theoretical framework of hegemony for explaining internet governance.

Hegemony Overview

Hegemony is a form of coercion that operates outside of 'direct and official control of foreign governments or territories' and yields significant control over 'the structures of international systems and the international behaviour of its units' (Antoniades, 2008, p. 2). Femia (1981, p. 33) argues that conformity occurs because men do what is what is expected of them because 'they are compelled to do so by those who monopolise the means of coercion'. Therefore, hegemony is derived from societal consensus and is constituted by social order. Gramsci (1971, p. 12) points out that consent is acquired because of the position and function of the dominant group, which in turn provides it with 'prestige and confidence' Applying this to Internet governance, Carr (2015, p. 643) points out the Internet is a 'mechanism' for soft and hard power with soft power exercised through 'cultural and linguistic dominance'. Hence, finding ways to capture and interpret instances of this dominance is key to operationalizing tensions that result from the shared and common interests of the stakeholders. We build on this logic to show how the ICANN receives 'spontaneous consent' (i.e. consent-based political control) from GNSO, BC, and CSG, which allows the ICANN to give general direction.

Hegemonic power results from the nexus of political power and political space. This connection brings with it new understandings 'social and historical reality' (Fontana, 2010, p. 342). Gramsci discusses examples of dyadic relationships to point out the contradictory and complementary nature of hegemony but also to argue that such tensions can shape new spatial discourses between parties. Gramsci (1971) shows how power oscillates between parties with neither party acquiring 'permanent supremacy over the other' (Fontana, 2010, p. 346). Hence, the contested nature of power has become a critical constitution of the nature of these stakeholder relations. Hence, interesting questions emerge with respect to businesses and Internet governance, namely, to what extent do the interactions between the ICANN and the business stakeholders constitute a collaborative or competitive relationship? Do all groups within the Business Stakeholders' unit contribute equally to the production of hegemony or counter-hegemony?

Participatory evangelism and Hegemonic thought

We now return to the deconstruction of participatory evangelism. Here, Mueller (2009) argues that the discourse of participation outweighs (and obfuscates) a lack of a distribution of power among the advisory committees and supporting organisations. This is in line with Cammaerts's (2011, p. 135) observation that participation of civil society groups within multi-stakeholder models 'merely serves as a way to neutralize criticism towards institutional actors'. Hence, discourses of consensus building and participation do not necessarily translate into the ICANN board's acceptance and acting on recommendations from stakeholders. Furthermore, participation does not mean that the groups will have 'the ability to have any genuine impact on outcomes' (Cammaerts, 2011, p. 135). Policy recommendation from the supporting groups of the ICANN that challenge the power base of the ICANN are also likely to be rejected. It is here that we are reminded of Cammaert's (2011, p. 135) argument to elucidate 'the conceptual connections or disconnections between multistakeholderism, participation, and power.' Chango (2011, p. 268) points out that even though civil society involvement has produced a more public and heterogeneous participation, it has not prevented particular groups from 'driving the ICANN agenda.' As such, an enduring question then is what affect do stakeholders believe that they have on the ICANN's decision making; in other words, what are the stakeholders' perceptions of their own power?

Ultimately, hegemons are concerned with remaining in power and are constantly 'calculating and recalculating the power ratios and making projections' between itself and subordinate members (Szayna et al., 2001, p. 49). Hegemons achieve and maintain their dominance by developing a 'certain way of life and *thought*' and then diffusing it through society (Katz, 2006, p. 335) primarily through. participation. This facilitates the ICANN's ability to legitimise itself to the public as the ultimate authority on Internet governance, while maintaining (or even strengthening) its own position of power. Drawing on international relations literature, Szayna (2001) argues that when subordinate groups have at least 80% of the hegemon's power, there is a greater chance of a challenge to the hegemon. In reality this may be difficult to quantify without further scrutiny of policy documents and processes. In fact, Gramsci (1971) has operationalised power ratios through examples rather than hard statistics. However, Szayna (2001, p. 50) further argues that the 'greater is the hegemon's preponderance of power and the greater is the power differential', the more careful the subordinate groups will act because of an awareness that their behaviour is being monitored by the hegemon.

In like manner, the greater the presence (and perception) of participation is, the more entrenched the ICANN becomes in its decision making because the distribution of powers has not changed but rather become more concentrated around the nucleus of the network, the ICANN. In other words, the 'voices of many' serve to confuse and distract from the actual decision making. This is in alignment with Mueller's (1999, p. 501) argument that participation facilitates legitimisation of the corporation while avoiding direct accountability to an external body, making it 'clearly in the interests of the ICANN to *maximise* public participation.' Extending participation also introduces another power mechanism of hegemony, trasformismo. Gramsci refers to this as 'the political process by which potentially counter-hegemonic ideas and activities are adapted and absorbed into hegemonic frameworks for action' (Bates, 2013, p. 119) by hiring or integrating the leaders these groups into the model. In this way, there are fewer 'external bodies' to which to be accountable and participation becomes a substitute for accountability. Having civil society stakeholders participate in ICANNsponsored meetings means that these meetings serve as fertile ground for the exchange of ideas regarding Internet governance and the opportunity for the historic bloc to coopt elements of civil society groups and use these elements to 'secure acquiescence of the dominated classes and identification with the hegemonic world-order' (Katz, 2006, p. 335).

According to Femia (1981, p. 37), modern interpretations of consent has come to mean that individuals are merely involved in the process, as opposed to actively acknowledging or approving a particular dominant discourse. Therefore, the outcomes become less relevant than the act of participating. In other words, certainty and resoluteness in their expressions of the dominated group in the meetings become relaxed or even redundant, giving way to ambivalence with further participation. Then, to what extent does participation promote a sense of accomplishment for civil society stakeholders on internet governance? The answer would depend on how one interprets Gramsci's view of accomplishment, particularly with respect to counter hegemonic groups or even groups that are simply not part of the dominant bloc. Using participatory evangelism as a lens, one could argue that the act of participation can provide a sense of accomplishment to members of the GNSO et al. because modern-day consent, i.e. participation itself, would produce feelings of accomplishment for the stakeholder. Hence, accomplishment as a construct would support the production of hegemony benefitting ICANN (were that its agenda), because participation in this governance process is based on consent and agreement with the principles that govern the system, even if not in agreement with policy outcomes. A proper assessment of this hypothesis would require more phenomenological methods (interview, for example). However, this may also be a 'weakness' in the elaboration of participatory evangelism and other literature on multistakeholder accountability (Chango, 2011; Mueller, 2009); namely, that little mention is made as to how these stakeholder groups directly interpret their realities (positionality) within the multistakeholder model.

Consent vs the voices of many

Hegemonic power feeds on, among other things, consent. Golding (1992, p. 84) argues that a progressive unity is developed when there is an institutionalization of an 'organic connection between the will of the people (in this case, GNSO, BC, and the CSG) and the intellectuals (the ICANN) that lead them.' It is only through fundamental connection to the 'will of the people' that consent could be registered and remain a 'part of the construction and legitimation of a new historic bloc. Hence, the invitation from the ICANN for stakeholders to join the multistakeholder model was a necessary step in reinforcing the historic bloc. The passivity that germinates as part of the process of hegemony also contributes to consent and reinforces the production of hegemony. Femia (1981) argues that consent becomes passive not because subjects are unaware of their discontent within a given social arrangement. Rather, passivity pervades because the discontented do not possess 'the conceptual tools which would enable them to comprehend and act on their discontent' (Femia, 1981, p. 44). In the context of Internet governance, the civil society acting through the GNSO may very well be aware of the need to bring about change and have resources to do so. For them, however, the barriers are different and more complex than Gramsci's articulation of discontented masses. Where the Gramscian subjects were prone to passive acceptance of the existing social order, Chenou (2014, p. 188) argues that it is through 'active consent' that hegemony is achieved. In this context, a groups of nonelite but established actors are outside of the 'dominant positions' of internet governance but could rise up to disrupt the social order. This understanding diverges from Gramsci's discussion of the passivity of the masses to construct a meaningful group of actors who have the social and human capital to protest effectively.

Femia (1981) distinguishes traditional interpretations of consent from more contemporary ones by showing that how earlier forms of consent were 'mere' affirmations that the ruling body bore authority simply because the subjects *acknowledged* that social order, and not necessarily an individual pledge of allegiance. In contemporary times, Femia (1981) continues, consent has come to connote the *manner* in which individual and group involvement supports the governing process. Consent in this context becomes void of the 'moral and prescriptive connotations' traditionally associated with it in lieu of participation and the illusion of power it assigns. Regardless of the outcome of an election (or policy vote, in the case of ICANN), participation in the process defines and produces consent and conformity to the outcome. Hence, the ICANN uses participatory evangelism as a device to create a false sense of clarity in the minds of the non-elite but established stakeholders. Therefore, were the non-elites to attempt to disrupt social order, there is little likelihood that this would happen because these groups represent multiple (and often conflicting) interests within their own groups. Szavna (2001) constructs a meaningful discussion around the role of peer-competitors. Proto-peers, as he terms them, have limited strategies to increase its power. He identifies four strategies: reform, revolution, alliance, and conquest. Though outside of the scope of this study, this construction of increasing power within a hegemonic arrangement deserves further attention. Using Gramsci's war of position, there would be two sides of the social space with articulations of hegemony maintaining the boundaries and frontiers between the [various civil society groups] that participate in internet governance. In fact, hegemonic articulations are based on the presence of antagonistic forces and the 'instability of the frontiers that separate

them' (Laclau and Mouffe, 1985, p. 122). Rather than thinking of the social space as being separated into only two sides, both Chenou (2014) and LaClau and Mouffe (1985, p. 122) point out that there are multiple democratic struggles that 'tendentially construct the division of a single political space into two opposed.'

Hegemonic Articulations

Laclau and Mouffe (1985, p. 122) show that the two conditions for hegemonic articulations 'are the presence of antagonistic forces and the instability of the frontiers which separate them.' Hence, the hegemonic subject, becomes subject to articulatory practices that maintain a particular social order. Laclau and Mouffe (1985, p. 122) describe this group as having to be 'partially exterior to what it articulates', in order for articulation to occur. However, with multiple voices come multiple interests. Laclau and Mouffe (1985, p. 7) argue that hegemony emerges in a 'context dominated by the experience of fragmentation and by the indeterminacy or complexity of the articulations between different struggles and subject positions.' The authors employ the term 'subject positions' to describe 'points of antagonism and the forms of struggle' that in many ways can serve to counter hegemony as they provide the platform for the 'investigation, disarticulation, and re-articulation of a hegemonic discourse' (DeLuca, 1999, p. 336). Hence, within their groups themselves there are struggles for power, or at least positionality, to determine the course of representation within the GNSO, BC and the CSG.

In this context and assuming the power is a zero-sum game, some members of these bodies would rise, while other members would acquiesce or conform. Femia (1981, p. 38) discusses four types of conformity that contribute to the production of hegemony. The first type occurs through coercion, where an individual conforms out of fear of the consequences of not conforming; which could include a loss of honour or self-esteem. The second type reflects complacency in that the subject remains with certain 'patterns of behaviour' because he or she has 'seldom entered situations in which the possibility of their rejection or modification has arisen'. This, Femia notes gives rise to unreflecting participation. The third type of conformity is tied to feelings of conscious agreement or attachment with 'certain core elements in society.' In this case, 'society' would be constituted by whichever of the three business stakeholder groups to which an individual belongs. The four type of conformity has to do with 'pragmatic acceptance', where the subject is ensuring 'reciprocal conduct of others', and this approach is a means of 'achieving their own goals' (1981, p. 40). If these dynamics can be said to be present in relations between ICANN and his civil society participants, all the more so it would be present in at all sets of relationships in this network. In this regard, van Dijk (2008, p. 47) argues that participants within an institutional setting, may 'follow context dependent rules and norms of interaction.'

As Femia and DeLuca have pointed out antagonisms are not external to the dominant discourse but emerge from within the 'social'. In other words, the antagonisms emerge as

part of the participatory process. Thus, the 'limits of discourse' that antagonisms should theoretically allow us to see the holes in Internet governance discourse. Unfortunately, as the data will show the lack of antagonisms in this case may have closed off opportunities to question and disarticulate hegemonic practices within Internet governance.

4. METHODOLOGY

4.1 Qualitative Analysis

As far as this research team are aware, this is a first attempt to use textual analysis software on archival Internet governance-related data to measure the presence of power in speech. Van Dijk (2008, p. 29) points out that (social) power is a 'property of the relationship between groups' and is characteristically manifested in interaction'. Van Dijk, like Gramsci, argued that text and talk can introduce various dimensions of power. Van Dijk (2008, p. 43) notes that 'group and memberships of speakers introduce 'differences in control over ongoing dialogue'. Hence, the dialogue that occurs between the GNSO, BC and the CSG at the ICANN-hosted meetings serves as a rich source of data from which to understand power relationship in Internet governance.

4.1.1 Content Analysis

The study uses DICTION 7.0 to analyse the archived meeting transcripts. Wasike (2017, p. 817) uses DICTION software perform content analysis because it is more reliable in coding textual data than traditional content analysis and has an 'affinity for political discourse. DICTION uses its own dictionary of 10,000 words and relies on five master variables (certainty, activity, realism, optimism, and commonality) and 31 sub-variables to analyse data. The software also allows users to analyse text in 500-word sections for a more accurate analysis. Furthermore, the software allows users to construct their own customary dictionaries (see Loughran and McDonald, 2011). Hence, the software has the flexibility to accommodate unorthodox data sets, which is good for mixed-methods or research that is exploratory in nature. To ensure research validity, we drew inspiration from similar approaches used in leadership studies that use DICTION software to create and analyse various constructs related to leadership. For example, Davis and Gardner (2012) measure charisma in a US president's speeches after major crises in the country. Using DICTION 5.0, they identify charismatic rhetoric from the former president's speeches, based on the dictionaries within the software. They conclude that the US president's charisma levels were responsive to two significant crises under consideration in the study, Hurricane Katrina and the terrorist attacks, widely known as 9/11. Another interesting study using DICTION was conducted by Kashmiri et al (2017) where they examined the relationship between CEO narcissism and firm innovation. Using characteristics identified in social psychology and public administration literatures, they constructed variable narcissism using alternative sources of data: the prominence of the CEO's photograph in annual reports, CEO prominence in company press releases, CEO's

relative cash compensation, and CEO's relative noncash compensation (Kashmiri et al., 2017, p. 642). The authors used Diction 7.0 to analyse the competitive aggressiveness and customer orientation variables used in their models. This illustrates how DICTION can play either a supporting role in textual data analysis or the major role. In these studies, the software was used to content analysis to form part of the overall study, supporting some form of regression analysis or (Diction-based) content analysis was used to provide analysis for a full study.

Furthermore, these studies use DICTION output scores as a basis for a secondary data analysis to statistically test the relevance of the data, which may be due to some drawbacks associated with form of content analysis. Davis and Gardner (2012, p. 921) identify four of its shortfalls as discussed in the literature: removes the complexity from natural language, extracts words from their contexts, sterilises the analysis such that higher level creative insights are not encouraged; lastly, it is impossible to create completely exhaustive dictionaries. To such extent, this may be the reason why this methodology is normally paired with higher level statistical methods, as we do in this study.

4.1.2 Data Collection

The data used in this study are 54 archived meeting transcripts from the tri-annual meetings of the GNSO, CSG, and the BC, dating from 2011 until 2016. The linguistic analysis was based on 9,032 (A4) pages of transcripts to measure the tone and rhetoric in the language used by members of these three groups. The data was first cleaned by removing 'front matter' from the transcripts, including introductions and roll calls. Secondly the data were visually checked to ensure that a great majority of the dialogue originated from non-ICANN attendees. Furthermore, the DICTION tests were fun in 500-word segments and random checks were performed to ensure there were no 500-word segments dominated by ICANN respondents. The second phase of data cleaning was done in preparation for the Analysis of Variance and Panel Data Analysis and is discussed in Section 4.2.1.

Mapping the Mappers: Hegemony Determinants

This study borrows methodologically from leadership studies that use linguistic software to analyse the tone and rhetoric of textual data. In doing so, we examine the extent to which hegemonic or counter-hegemonic discourses are produced in the triannual ICANN meetings. Using *Diction* provides numerous benefits in that it reduces impartiality and human error that can occur in traditional content analysis. Furthermore, the software has an affinity for political discourse and allows the user to create custom dictionaries (Wasike, 2017, p. 817).

Unlike Craig and Brennan (2012) who identified preselected variables, this present study begins with a more inductive approach because existing research on internet governance power relations has not been conducted using this methodology. In this context, the data

drove the study in terms of understanding how hegemony can be operationalised as a dependent variable; i.e. where 'general inferences are induced from particular instances' (Collis and Hussey, 2009, p. 7). The concepts associated with hegemony from the literature review seemed to suggest that the master variable to emerge from the data would have been Commonality (that is, language highlighting the agreed-upon values of a group and rejecting idiosyncratic modes of engagement, *Diction* manual, pg. 10). The exercise of linking the definitions of master variables with theories of hegemony was useful in the sense that it illustrates the degree of grounding of the DICTION master variables. However, the output from *Diction* pointed to Certainty (language indicating resoluteness, inflexibility, and completeness and a tendency to speak ex-cathedra, Diction manual, pg. 6) as the dominant master variable that summarises the interactions of these meetings. We ran Diction analysis to collect hegemony scores for the each of the separate groups and exported those analysis as an excel format. Using the master variables scores and the calculated scores, we then created two chart analysis for each group to depict the hegemony scores in a graphical format to get a better idea on how the hegemony has changed and influenced each group over the selected years.

Given that the data collected and analysed in the study were significantly discussions among the members of the business sectors, rather than ICANN members, this study looks at hegemony facilitation that favour the dominant organisation's ability to produce and apply hegemony on the relationships that constitute one sector of the multistakeholder model. Hence, there is an underlying logic that the discourses produced within these meetings will either counteract or reinforce hegemonic power from the historic bloc (ICANN). Of course, a more traditional way of examining this case would have been to link charisma of ICANN leaders with hegemonic practices. This would have allowed for the research to draw more directly on leadership research and methods. However, the context of participatory evangelism would imply a more inclusive analysis of the stakeholder groups and how these actors can be implicit in construction of hegemony. Furthermore, the basis on which hegemony exists is through consensus from subjects who then go on to build and support the historic bloc that reigns over them. Therefore, dependency on a single leader's discourse would not sufficiently explain the articulations of hegemonic power among the network.

Diction 7.0 generates normalised indexes (z-scores) of the lexicon which according for various constructs (hegemony in our case). Using the key definitions of the variables, we have found eight of them plus one calculated variable, complexity to have statistical significance for construction of the dependent variable of hegemony (shown in the appendix). The variables in Table 1 were the ones found to be significant in developing the models used to explain our definition of hegemony. We have attempted to synthesise these variables through hegemony concept in the literature. Using this grounding exercise, we determined whether the relationship between the sub-variables would have a positive, negative or neutral effect on the production of hegemony. To clarify, hegemony would favour the dominant historic bloc (the ICANN).

TABLE 1

Sub-Variable	Definition	Linkage to Hegemony	Assumed relationship to hegemony based on the existing literature
Ambivalence	Words expressing hesitation or uncertainty, implying a speaker's inability or unwillingness to commit to the verbalisation being made. Included are hedges (allegedly, perhaps, might), statements of inexactness (almost, approximate, vague, somewhere) and confusion (baffled, puzzling, hesitate). Also included are words of restrained possibility (could, would, he'd) and mystery (dilemma, guess, suppose, seems).	According to Femia (1981, p. 37), consent has come to mean that individuals are involved in the process, rather than having to actively acknowledge a particular dominant discourse (or commit to the verbalisation being made). Therefore, the outcomes are less relevant than the question of did they participate in the process. Certainty and resoluteness in expression (the opposite of hesitation and uncertainty) becomes relaxed or even redundant, giving way to ambivalence.	Positive
Cognition	Words referring to cerebral processes, both functional and imaginative. Included are modes of discovery (learn, deliberate, consider, compare) and domains of study (biology, psychology, logic, economics). The dictionary includes mental challenges (question, forget, reexamine, paradoxes), institutional learning practices (graduation, teaching, classrooms), as well as three forms of intellection: intuitional (invent, perceive, speculate, interpret), rationalistic (estimate, examine, reasonable, strategies), and calculative (diagnose, analyse, software, factfinding).	The definition creates a counter-hegemonic projection in the discourses particularly with respect to modes of discovery and the mental challenges, which includes questioning, forgetting, re-examining and the presence of paradoxes. However, the sub-variable also feeds upon the institutional learning practices, which in this case would emanate from the participation in the Internet governance model and the power of the 'historic bloc' (Gramsci, 1971). Hence, the overall effect of this sub-variable would be tempered. (See case for the CSG).	Positive
Master Variabl	es	1	1

	1	1	
Certainty	Language indicating resoluteness, inflexibility, and completeness and a tendency to speak excathedra. Formula: [tenacity+leveling terms+collectives+insistence]-[numerical terms+ambivalence+self	This master variable would lend itself to the production of hegemony because it does not allow for antagonisms. DeLuca (1999, p. 336) argues that antagonisms are the 'limits of discourse'. DeLuca points out that antagonism provides the platform for the 'investigation, disarticulation, and rearticulation of a hegemonic discourse.' The resoluteness of language that characterises certainty as a master variable closes off opportunity to question and	Positive
	reference+variety]	disarticulate hegemony within Internet governance.	
Realism	Language describing tangible, immediate, recognisable, matters that affect people's everyday lives. Formula: [familiarity+spatial terms+temporal terms+present concern+human interest+concreteness]-[past concern+complexity]	This master variable would also promote hegemony within Internet governance because of its focus on the superficial. So much of hegemony occurs in nuanced ways.	Positive
Commonality	Language highlighting the agreed-upon values of a group and rejecting idiosyncratic modes of engagement Formula: [centrality+cooperation+rap port]- [diversity+exclusivity+libera tion]	Following Boothman (2008, p. 208), we suggest that hegemony brings with it an emergence of alliances, formal and informal. Furthermore, hegemony does not operate 'in a uniform manner across the globe' (Robinson, 2005, p. 568). Within this construct, consensus building must occur. Golding (1992, p. 107) argues that an established cohesively-inscribed group is the cornerstone for hegemony, where consent is derived from like-minded groups 'would agree either tacitly or explicitly agree to being led'.)	Positive

Activity	Language featuring movement, change, the implementation of ideas and the avoidance of inertia. Formula:[aggression+accom plishment+communication+ motion]- [cognition+passivity+embell ishment]	This master variable would serve to produce counter hegemonic practices because (it is exactly the opposite of certainty). However, this does not mean that the outcomes of movement, change etc would yield the sort of the results anticipated by counter hegemonic groups. See Szanya et al (2001) for more.	Negative
Optimism	Language endorsing some person, group, concept or event or highlighting their positive entailments. Formula: [Praise+satisfaction+inspirat ion]- [blame+hardship+denial]	the act of participating is consent without the need for an individual endorsement is the more recent interpretation of consensus (Femia, 1981).	Positive
Calculated Va	riable		
Complexity	Convoluted phrasings make a text's ideas abstract and its implications unclear. The measurement is word size. The formula is the average number of characters- perword in a given input file.	Articulated practices within the political spaces of Internet governance lead to 'systems of differences' (Laclau and Mouffe, 1985, p. 124), which begin to erode the 'hegemonic form of politics.' DeLuca (1999, p. 334) defines articulation as a 'means of understanding the struggle to fix meaning and define reality temporarily.' [Postmodernity, multiple realities and struggles, hence the greater the complexity the more difficult maintaining hegemonic forms of politics. Gramsci.]	Negative
Insistence	Repetition of key terms indicates a preference for a limited, ordered world. The measurement of coderestriction. All words occurring three or more times that function as nounderived adjectives are identified.	The preference for a limited ordered world favours the production of hegemony as it contributes to a continuance of the status flow which favours the 'historic bloc' (Gramsci, 1971), i.e. ICANN.	Positive

Embellishment	Heavy modification slows down a verbal passage by de-emphasising human and material action. The measurement is selective ratio of adjectives to verbs.	Devaluing their own efforts (Boder, 1940). Relying on more on adjectives rather the verb, signifying representation rather than action (Short and Palmer, 2008).	Positive
Variety	A high score indicates a speaker's avoidance of overstatement and a preference for precise, molecular statements.	(refer to complexity as a guidance)	Negative

4.2 Quantitative Methods

4.2.1 Data structure

The data used in section 5.2 is the z-scores of the words measured by Diction 7.0 in the scripts of the BCG, CSG and GNGO meetings held between 2012 and 2016. We re-arrange these data to be treated for a series of statistical tests that allow us to understand how hegemony conceptually relates to the words measured by Diction 7.0. We are conscious this data is small even as a pooled cross-section: 15 observations for 3 units of analysis (BCG, CSG and GNGO); consequently, we chose to apply Analysis of Variance and Seemingly Unrelated Regressions.

4.2.2 Analysis of Variance

The use of the Analysis of Variance in this paper has two purposes. First, to explore how different constructs that can be linguistically associated with the concept of hegemony relate statistically, since we look for comparing the means of relevant calculated raw z-scores. Second, once these relationships are statistically established, we employ the chosen constructs to calculate a *hegemony index*, whose mean is next compared to the means of another set of constructs deemed to be conceptually linked to the participatory evangelism thesis. Therefore, we perform a two-way Analysis of Variance, by applying (Multiple) Analysis of Variance/Covariance, i.e., via ANOVA, ANCOVA and MANCOVA models (Stevens, 2002).

The rationale of the Analysis of Variance family of models, is the testing simultaneously of more than two means by comparing their variances, for which we assume independent samples from each of the *t* populations (Freund, 2006). Namely, the variabilities with respect to the some word means in DICTION 7.0 are compared across the groups between

2012 and 2016, and eventually compared to a *hegemony index*. The general model is based on what is known in the literature as a Randomized Complete Block Design, which for us means:

!"#=%+'"	+)#+*"#, +: !* (/.01
2012	50	2016) and 7: 8.09:
(<=, =</td <td>-@A</td> <td>=B=C)</td>	-@A	=B=C)

Where:

!"#: *Hegemony* from the *i* year and the *j* group

%: The overall mean

'": The effect of the year

)#: The effect of the group

*_{"#}: The random error term

We try then to test:

 E_F : '_" = 0 for all *i*

 E_F : '" $\neq 0$ for more than one *i*

4.2.3 Seemingly Unrelated Regressions

After developing the Analysis of Variance, we proceed to apply a series of Generalised Linear Models in which we examine the parametrical qualities of the data by using Pooled Ordinary Least Squares (POLS) and Seemingly Unrelated Regressions (SUR), since we allege that throughout the period 2012-2016 the three stakeholders under study might have shown different attitudes towards hegemony. In this way we can compare collective (POLS) against individual (SUR) hegemonic practices based on statistical grounds, since we can test for the existence of residuals independence in the hegemony across the three groups (Amemiya, 1985; Greene, 2012)). Under this rationale, we modify the model in (1) to capture the following:

SUR Model

 $!_{H} = \%_{H} +)_{H}$ $I_{J} + *_{H}$, K: 8.09: (<=, <?= -@A =B=C) (2) Where:

 $!_L$: Hegemony in the k group

 $9_{\rm H}$: The mean in the k group

) $_{\rm H}$: Coefficients of the X matrix of covariates in the k group

IJ: Covariate words in the k group

'_H: The random error term in the k group

Testing:

 $E_{F}:)_{H} = 0$

 E_F :)_H $\neq 0$

And the POLS Model

! = % +) I + *, K: 8.09: (<=, <?= -@A =B=C) (3)

Where:

!: Hegemony in the three groups

9: The mean in the three groups

): Coefficients of the X matrix of covariates

X: Matrix of covariate words

*: The random error term

Testing:

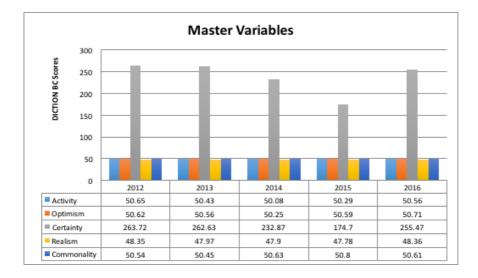
 E_{F} :) = 0

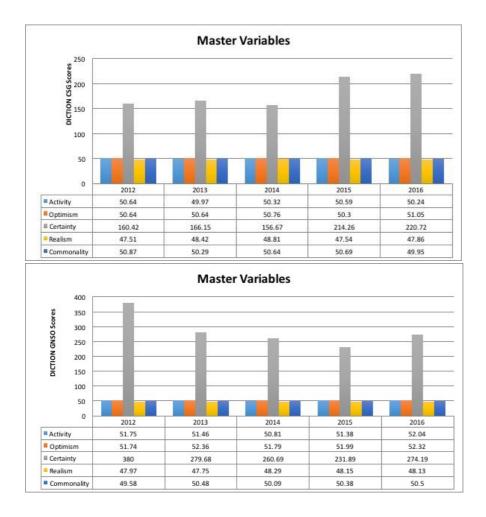
E_F :) $\neq 0$

5. ANALYSIS OF RESULTS

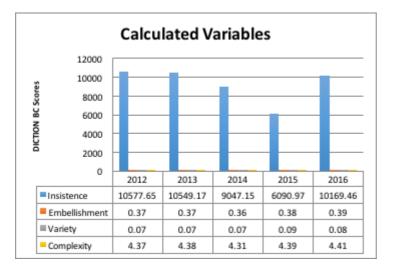
5.1 Qualitative Analysis

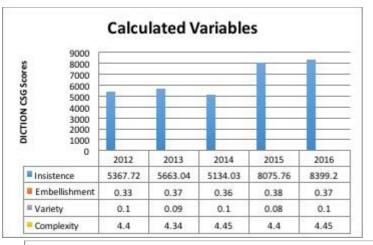
The output from DICTION software used on the cleaned manuscript archives of the ICANN meetings with the GNSO, CSG, and BC groups provided Certainty as output for the master variable. Certainty is defined as language 'indicating resoluteness, inflexibility, and completeness and a tendency to speak *ex-cathedra*. Certainty is formulated by adding together the words that are within the following dictionaries: tenacity, leveling terms, collectives, insistence; and subtracting the total of the words within these dictionaries: numerical terms, ambivalence, self-reference, and variety). Hence, Certainty would flatten discussions within the ICANN meetings and not allow for nuance or criticality. The graphs below show that certainty was the predominating master variable for each year, by a wide margin, for each of the three groups. On the surface, this would appear to promote hegemony for the dominant discourses. This is because, as DeLuca (1999) argues, the characteristics of antagonisms are to do with the production of articulations that emerge to point out the *limits* of a discourse. Antagonisms would not find a fertile ground for growth or development within resolute or inflexible language because there is little or no disarticulation or re-articulation and hence, little means with which to properly understand or challenge the dominant social order. There is then support for the argument put forth by Gramsci (1971) who argued that the subjected are not capable of acting on their discontentedness. This also links to Szayna (2001) suggestion that these subordinate groups have a limited number of strategies with which to increase their power and position within multistakeholder arrangements.

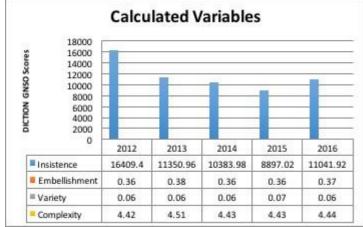




DICTION also provides calculated variables that are grounded in theoretical underpinnings and assign a score for four such variables. The table below shows the scores for the calculated variables. For all three groups across the years, the calculated variable was Insistence. This is defined as repetition of key terms that indicate a preference for a limited ordered world. This variable is a 'measure of code restriction and semantic 'contentedness' (Short and Palmer, 2008, p. 733). The repetition of particular words signals the groups' preferences for order. Insistence would also facilitate the discourses that promote hegemony (see Table 3 for calculated variables). Interestingly, the GNSO group demonstrated a downward trend for insistence, which given that this is the largest of the three groups might imply that there is an emerging (different) strategy afoot in their meeting discourse. In the larger picture, insistence still dominates the three groups by a wide margin. It is not surprising that insistence is found within the positive sub-variables of certainty. Does this mean that the GNSO, BC, and the CSG prefer the current status quo of internet governance because it may be still better than the next best alternative (i.e. Internet fragmentation)? In both the master and the calculated variables outputs, the GNSO has shown a decline in the use of words that are categorised as insistence or certaintyrelated. What does this difference tell us about the configuration of the larger and more established group in comparison to the smaller BC and CSG?







5.2 Quantitative Analysis

5.2.1 The HEIN index

Hegemony was evaluated assessing the z-scores analysed in 5.1 of the following parameters for the three groups, i.e., the BC, the CSG and the GNGO, throughout the period 2012-2016:

Pro- Hegemony	Counter- Hegemony
Cooperation	Aggression
Passivity	Accomplishment
Ambivalence	Liberation
Centrality	Blame
Rapport	Hardship
	Denial

In tables 1a and 1b we tried to understand how these eleven DICTION variables could be, according to the literature review, used to calculate a Hegemony Index we named *HEIN*. Through the Analysis of Variance, only eight of these eleven variables proved to be statistically related in terms of the variation with respect to their means. We employed them to calculate *HEIN* as a dependent variable.

	Number of obs =		15				
	W = Wilks' lambda P = Pillai's trace			ey-Hotelli s largest	2	ace	
Source	Statistic	df	F(df1,	df2) =	F	Prob>F	_
organisat~n	W 0.0010 P 1.8310 L 159.9882 R 154.8362	2	22.0 22.0 22.0 11.0	4.0 6.0 2.0 3.0	2.96 7.27	0.0555 0.0909 0.1277 0.0052	a a
Residual		12					
Total		14					_

e = exact, a = approximate, u = upper bound on F

Table 1a. MANOVA model with eleven DICTION variables related to Hegemony

In particular, the MANOVA model in table 1a does not find the initial eleven variables simultaneously significant at 5% when *Organisation* is considered the main source of variability with respect to their mean, except for the Roy's largest root test; however, at 10% it does it, except for Lawley-Hotelling trace statistic. Obtaining the Multiple Dependent Variable Regressions (see appendix), we find that *Blame, Aggression* and *Liberation* are not significant, even at 10%. Therefore, we re-run the MANOVA model leaving these three terms aside, which is shown in table 1b. In table 1b we can see the eight remaining variables were simultaneously significant at ²% with respect to *Organisation*. The associated post-estimates show these were all significant at 10% (see appendix).

² We also estimated Cronbach's alpha (DeVellis, 2017) to test for the reliability of the models were the variable organisation was not specified. All alpha scores are above 0.75, which by definition are considered 'reliable'.

	Number of obs =		15			
	W = Wilks' la P = Pillai's			ey-Hotell s largest	2	ace
Source	Statistic	df	F(df1,	df2) =	F	Prob>F
organisat~n	W 0.0119 P 1.6929 L 23.8736 R 21.0529	2	16.0 16.0 16.0 8.0	10.0 12.0 8.0 6.0	4.13 5.97	0.0063 e 0.0085 a 0.0076 a 0.0017 u
Residual		12				
Total		14				

e = exact, a = approximate, u = upper bound on F

Table 1b. MANOVA model with eight DICTION variables related to Hegemony

Based on the MANOVA results in table 1b, we used the pro and counter-Hegemony definitions listed above and calculated *HEIN* using self-weights, namely pondering the z-scores by selecting them with probability proportional to their sizes (United Nations Secretariat, 2008). In line with the conceptualisation of hegemony and the construction of Master Values in DICTION 7.0 we account for *Pro-Hegemony* parameters as additions and *Counter-Hegemony* parameters as subtractions to the index totals per group and per year. As a consequence, from table 2 to table 4, *HEIN* becomes formulated as a dependent variable. In table 2 we present six selected ANCOVA models, which deal with the data as a pooled cross-section. In tables 3 and 4, the data are set as a panel in the long form (first by group, then by year), with the exception of the stand-alone models in table 3, where panel data is set in the wide form (first by year, then by group). Therefore, tables 3 and 4 expand on the ANCOVA models explored in table 2 by using regression analysis methods, including Seemingly Unrelated Regression models.

Please note that the models specified in tables 3 and 4 use *ambivalence, cognition* and *complexity* as covariates because these were highly correlated with *HEIN* (over 0.70, by Spearman test) as shown in the correlation test (see appendix). Based on the theoretical underpinnings of DICTION 7.0, in addition to *ambivalence* and *cognition*, we also model *HEIN* in terms of the following variables²:

Calculated Variables*	Master Variables*

Insistence	Activity
Embellishment	Optimism
Variety	Certainty
Complexity	Realism
	Commonality

*corr hein2 activity embellishment insistence complexity variety optimism certainty realism commonality ambivalence cognition

5.2.2 The HEIN Models

According to table 2, ANCOVA models 1 to 6 reveal that *ambivalence, cognition* and *complexity* variation with respect to their means jointly held a significant relationship with *HEIN* mean variation either when these were specified with the rest of calculated variables or with the master variables; however, *complexity* variation with respect to its mean was the most significant one associated with *HEIN* mean variation across the six models. On the other hand, in the models where the *organisation* variable (categorical variable for the three business stakeholder groups) was also tested, the explanatory power of the covariates (i.e., the R-squared of the models) was higher, both when calculated variables were and were not specified (models *HEIN* 2 and *HEIN* 4), though this was indistinguishable where master variables were used (model *HEIN* 6). Consequently, there seems to be a stronger relationship between our definition of *Hegemony*, which stakeholder group was tested, and the level of complexity of the language utilised during the meetings. In tables 3 and 4, we apply SUR on *HEIN*, in this way measuring its coefficient relations with other covariates from OLS' standpoint.

HEIN 5	HEIN 6	HEIN 1	HEIN 2	HEIN 3	HEIN 4
Ambivalence 1.245***	1.143**	0.454*	0.548**	0.338	0.565+
(0.144)	(0.188)	(0.173)	(0.120)	(0.369)	(0.244)
Cognition -0.539+	-0.521	0.711+	0.442+	0.853	0.471

(0.258)	(0.277)	(0.343)	(0.232)	(0.536)	(0.338)
Complexity -8.074*	-12.49*	-11.01*	-18.40***	-12.12+	-19.86**
(2.630)	(3.558)	(4.773)	(3.572)	(6.493)	(4.410)
Stakeholder G -0.171	roup=1		-1.429**		-1.630+
(0.670)			(0.376)		(0.689)
Stakeholder G 0.461	roup=2		-0.331		-0.226
(0.591)			(0.331)		(0.830)
Insistence				-0.000111 (0.000214)	0.0000296 (0.000141)
Embellishment				-2.369 (16.71)	14.95 (10.98)
Variety				-20.71 (29.15)	-0.373 (31.14)
Activity 1.138*	0.446				
(0.354)	(0.558)				
Optimism -0.252	0.302				
(0.274)	(0.477)				
Certainty 0.0100**	-0.00340				
(0.00214)	(0.00434)				
Realism -1.286**	-1.266**				
(0.249)	(0.246)				
Commonality -3.494***	-2.441+				
(0.501)	(0.919)				
Constant 233.0***	205.6**	51.84*	86.43***	60.97+	86.35**
(31.35)	(32.79)	(22.67)	(16.93)	(32.41)	(19.92)

30

_

R-squared		0.889	0.962	0.896	0.974
0.992	0.996				
AIC		33.83	21.81	38.75	22.26
3.548	-1.077				
BIC		36.66	26.06	43.70	28.63
9.921	6.712				
F		29.30	45.27	11.55	27.65
98.11	93.30				

Standard errors in parentheses

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table 2. ANCOVA Models of HEIN

In table 3 we expand on models 1 and 2, by using *ambivalence, cognition* and *complexity,* as main covariates. In particular, in models *HEIN* 7 to *HEIN* 10 the same specification is used, applying Pooled Ordinary Least Squares (POLS) in model 7, and the Stand Alone OLS (SAOLS) in models *HEIN* 8, *HEIN* 9 and *HEIN* 10. Model *HEIN* 11 uses a different specification to *HEIN* 7 to *HEIN* 10 in that *organization* is also a covariate. POLS in *HEIN* 7 results from failing to reject the absence of significant sub-group residuals (an F-test on the residuals of a Fixed Effects model version of *HEIN* 7, at 10%, (see appendix). SAOLS in *HEINs* 8, 9 and 10, result from failing to reject independence of residuals in Seemingly Unrelated Regressions (a Breusch-Pagan test, at 10%, see appendix).

	HEIN 7	HEIN 8	HEIN 9	HEIN 10	HEIN 11
Ambivalence	0.454* (0.171)				0.548** (0.0987)
Cognition	0.711+ (0.351)				0.442+ (0.233)
Complexity (3.439)	-11.01**		(3.152)		-18.40**
ambivalence1 (0.519)		0.430			
cognition1 (0.945)		1.419			
complexity1 (7.251)		2.528			
ambivalence2 (0.0224)			-0.297*		
cognition2 (0.0239)			-0.627*		
<pre>complexity2 (0.892)</pre>			-56.97**		
			ambiva	lence3 0.415 0.148)	

				cognition3 0.546 (0.193)	
complexity3				- 12.89 (4.696)	
Stakeholder Group=1					-1.429** (0.253)
Stakeholder Group=2					-0.331 (0.330)
Constant	51.84** (15.85)	-16.66 (35.63)	290.5* (4.647)	63.39 (18.28)	86.43** (14.67)
R-squared AIC BIC F	0.889 33.83 36.66	0.992 3.755 2.193 37.99	1.000 -18.67 -20.24 550.0	0.970 0.434 -1.129 23678.1	0.962 21.81 26.06 31.20
-					325.4

Standard errors in parentheses

+ p<0.1, * p<0.05, ** p<0.01

Table 3. Pooled OLS, Stand-Alone OLS, and RE Models of HEIN

Model *HEIN* 7 in table 3 is assessed at 10% significance level, without specifying the organisation variable (meaning that the three stakeholder groups were analysed as a collective). For each increase in one Standard Deviation with respect to its mean (SD, from here on) of *ambivalence*, *HEIN* increased approximately 0.45 of one SD. By comparison, the same increase in *cognition* increases 0.71 of one SDs of *HEIN*. In contrast, an increase of one SD of *complexity* implies a decrease of 11.01 SDs of *HEIN*. This means that even though hesitating and insightful discourses in the three sub-groups reinforced *hegemony*, the use of convoluted phrasings did the opposite, causing more variability with respect to the mean of *HEIN* between 16 and 25 times, pointing at a very strong negative relationship. For models in HEIN 8, 9 and 10, SAOLS separate the three sub-groups, namely, HEIN 8 specifies *HEIN* for the BC, while *HEIN* 9 specifies it for the CSG and *HEIN* 10 for the GNSO. It is relevant to note that out of these SAOLS only HEINs 8 and 9 were overall significant, which then reveals that *Hegemony* in ICANN during the period under study may have been determined mainly by the BC and the CSG sub-groups. In this respect, nonetheless, Model 8 shows none of the covariates were significant even at 10%. In model 9, at 5% significance, for each increase in one SD of *ambivalence*, *HEIN* decreased approximately 0.3 SDs, whereas the same increase in *cognition* meant a decrease of 0.63 SDs of *HEIN*; something similar happened with complexity, since an increase of one SD of *complexity* implied a decrease of around 56.97 SDs of *HEIN*. In contrast to model 7, the impact of *complexity* was on the same direction as *ambivalence* or *cognition*, however still in a much larger magnitude (between 90 and 190 times larger). This meant that particularly in the case of the CSG, the use of simplistic phrasing in the sub-group's meetings increased its own hegemonic powers massively.

In the same table 3, in model *HEIN* 11 when organisation is specified as a categorical variable, sitting in a CSG meeting tended to decrease *HEIN* collectively in 1.43 SDs. It is then apparent that the GNSO's meetings where more prone to foster hegemonic discourses than

CSG's (the case of BC's is inconclusive). Again as with model 7, complexity significantly affected *HEIN* several times more than ambivalence and cognition in the opposite direction. Observe, in model 11 the R-squared under the new specification is higher than when the stakeholder group is not specified.

In table 4, we analyse models *HEIN* 12 to 15, which are all POLS, since this was the only panel data treatment statistically feasible. In particular, in model 12 and 13 we re-specify models 7 and 11 by adding the calculated variables listed above, whereas in *HEIN* 14 and *HEIN* 15 we do the same by adding the master variables listed above to *HEIN* 12 and *HEIN* 13. Across these four models, still it can be observed how *complexity*, and therefore the use of longer wording had a relatively larger negative impact on *HEIN*. On the other hand, across these four models other variables also had a negative relationship as covariates with *HEIN*, though to a much lesser extend to know: *Certainty, realism* and *commonality*, in the range of up to minus 2.5 SDs.

	HEIN 7	HEIN 8	HEIN 9	HEIN 10	HEIN 11
Ambivalence	0.454* (0.171)				0.548** (0.0987)
Cognition	0.711+ (0.351)				0.442+ (0.233)
Complexity (3.439)	-11.01**		(3.152)		-18.40**
ambivalencel (0.519)		0.430			
cognition1 (0.945)		1.419			
complexity1 (7.251)		2.528			
ambivalence2 (0.0224)			-0.297*		
cognition2 (0.0239)			-0.627*		
complexity2 (0.892)			-56.97**		
			ambival		
			(0	0.415).148)	
				+ 2	
			cogni	tion3 0.546	
			(0	0.193)	
complexity3				-	
			(4	12.89 1.696)	
Stakeholder Group=1					-1.429** (0.253)
Stakeholder Group=2					-0.331 (0.330)
Constant	51.84** (15.85)	-16.66 (35.63)	290.5* (4.647)	63.39 (18.28)	86.43** (14.67)

R-squared	0.889	0.992	1.000	0.970	0.962
AIC	33.83	3.755	-18.67	0.434	21.81
BIC	36.66	2.193	-20.24	-1.129	26.06
F	37.99	550.0	23678.1	31.20	325.4

Standard errors in parentheses
+ p<0.1, * p<0.05, ** p<0.01</pre>

Table 4. Extended POLS Models of HEIN

Only *activity* tended to reinforce hegemony as a covariate, but in model 14 only, just in 1.4 SDs, compared to the approximately minus 20 SDs of *complexity* in model 13. It is interesting also to mention that only in model 13 but not in model 15 *organization* was significant; which is revealing, since it seems then that calculated variables implied a more appropriate specification to compare *organization* influence. In this table all models have relatively higher explanatory powers, however, models 14 and 15 are more informative in terms of the AIC and BIC criteria, which points at master variables as better explanatory variables of *hegemony* than calculated variables when the three stakeholders groups were treated as a collective.

5.3 Contributions to the theory of Hegemony

The findings also show some difference between the expected outcomes of the textual linguistic results and the statistical results. According to our findings across tables 2 to 4, complexity played the most relevant role in the determination of Hegemony. Following Laclau and Mouffe (1985) and DeLuca (1999), articulated practices undermined hegemonic practices in the collective under study; in fact, this consistently happened when taking into account other calculated variables as well as the master variables as covariates of hegemony. The articulated practices produce diverse forms of discourse and as such begins to diffuse the relative power across the subjected groups (GNSO, BC and the CSG) making them in many ways less able to be controlled. This leads to 'systems of differences' (Laclau and Mouffe, 1985) and erodes hegemonic discourses from ICANN. On the other hand, we also found statistical evidence in table 3 that confirms that when ambivalence, cognition and complexity are the only covariates of hegemony, the three subgroups can be analysed separately. In doing so, we found the CSG to be the predominant source of counterhegemonic discourses, as well as presenting the opposite expected relationship of hegemony with respect to ambivalence, though still much milder compared to complexity; This contrasts with Femia's (1981) construction of the process of giving consent which involves discourses of participation or engagement rather than outright approval. Cognition also held a negative relationship with hegemony (from the table, cognition as a sub-variable also feeds upon the institutional learning practices, which in this case would emanate from the participation in the Internet governance model and the power of the 'historic bloc' (Golding, 1992).

When the groups are treated as a collective in table 4 (i.e. pooled OLS), we find that, specifying ambivalence, cognition and complexity, along with calculated and/or master variables, the type of group (GNSO, BC and the CSG) also had an impact on hegemony. In fact, in model 16 where master variables were specified (i.e. included in the model), the

type of group was not statistically significant compared to model 14, where calculated variables were specified. However, we deem the specification in model 16 more complete in explaining hegemony, therefore contradicting....on "sense of belonging". In table 4 as well, it is interesting to note how specifying master variables in model 15 improves the goodness of fit compared to model 13, where all variables (except for complexity) are not significant. In model 15, except for cognition and optimism, the rest of variables are significant. We encounter that complexity is still the highest impact variable, followed by commonality, realism and certainty, in terms of negatively influencing hegemony. Finally, in model 15 too, we find Activity had a positive significant impact on hegemony; however the model with the best specification does not find Activity to be significant.

6. CONCLUSIONS

Our results suggest that the verbal interactions between the largest business stakeholders of the internet governance model in fact support for hegemonic practices in the Internet governance. This study also lends support to the continued effectiveness of participatory evangelism as a device to reinforce power positions within internet governance. Diction outputs lends an understanding that although there was variation within the three business groups, their overall participation within internet governance is contributing to the production of hegemony. The overall inverse relationship between the variable of Complexity and hegemony suggests less complex the discussions of the three business groups, the higher the contribution to the production of hegemony. This variable results in a less challenging environment for the implementation and reinforcement of the dominant discourses of the historic bloc. Furthermore, when there are lower levels of: Realism, Commonality, Certainty and Complexity the greater levels of hegemony; with complexity being the dominant component. The larger the presence (or perception) of participation is, the more entrenched the ICANN becomes in its decision making because the distribution of powers has not changed. Hence, the 'voices of many' may serve to confuse and distract from the actual decision making. These findings prompt the following questions for future research: What does this say about how we operationalise hegemony in large multistakeholder arrangements?

For a more theoretical response to why hegemony persists within the data, we can examine the words of Jones (2006, p. 69) who suggests that cultural forms, such as talk, are 'so deeply immersed, both formally and informally,' within the superstructures that produced them that they 'inevitably depict the world in ways that reproduce and thereby maintain these inequalities.' However, opposition in the form of counter hegemony cannot only be produced from outside of the dominant discourses. Hence, a Gramscian neither 'celebrates nor condemns' dominant discourse but examines how they 'are produced in relation to the struggles between dominant and subordinate groups' (Jones, 2006, p. 70).

7. REFERENCES

Amemiya, T., 1985. Advanced Econometrics. Harvard University Press, Cambridge, Mass.

- Antoniades, A., 2008. From "Theories of Hegemony" to "Hegemony Analysis" in international relations. Presented at the ISA Annual Convention, University of Sussex, UK, San Francisco.
- Bates, J., 2013. The Domestication of Open Government Data Advocacy in the United Kingdom: A Neo-Gramscian Analysis. POI 5, 118–137. https://doi.org/10.1002/poi3.25
- Bieler, A., Morton, A.D., 2004. A critical theory route to hegemony, world order and historical change: neo-Gramscian perspectives in International Relations. Capital & Class 28, 85–113. https://doi.org/10.1177/030981680408200106
- Boder, D.P., 1940. The adjective-verb-quotient: a contribution to the psychology of language. The Psychological Record 3, 310–343.
- Boothman, D., 2008. The Sources for Gramsci's Concept of Hegemony. Rethinking Marxism 20, 201–215. https://doi.org/10.1080/08935690801916942
- Cammaerts, B., 2011. Power dynamics in multi-stakeholder policy processes and
- intra-civil society networking, in: The Handbook of Global Media and Communication
- Policy, General Communication & Media Studies. Wiley-Blackwell, Oxford, UK, pp.
- 131–147. Carr, M., 2015. Power Plays in Global Internet Governance. Millennium 43, 640–659. https://doi.org/10.1177/0305829814562655
- Chango, M., 2011. Accountability in private global governance: ICANN and civil society, in: Scholte, J.A. (Ed.), Building Global Democracy? Civil Society and Accountable Global Governance. Cambridge University Press, Cambridge, England, pp. 267–288.
- Chenou, J.-M., 2014. The Role of Transnational Elites in shaping the evolving Field of Internet Governance.
- Collis, J., Hussey, R., 2009. Business Research: A Practical Guide for Undergraduate and Postgraduate Students, 3rd edition. ed. Palgrave Macmillan.
- Cox, R.W., 1981. Social forces, states and world orders: beyond international relations theory. Millennium 10, 126–155.
- Craig, R.J., Brennan, N.M., 2012. An exploration of the relationship between language choice in CEO letters to shareholders and corporate reputation. Accounting Forum, Analyzing the Quality, Meaning and Accountability of Organizational Communication 36, 166–177. https://doi.org/10.1016/j.accfor.2012.02.004
- Davis, K.M., Gardner, W.L., 2012. Charisma under crisis revisited: Presidential leadership, perceived leader effectiveness, and contextual influences. The Leadership Quarterly 23, 918–933. https://doi.org/10.1016/j.leaqua.2012.06.001
- DeLuca, K., 1999. Articulation Theory: A Discursive Grounding for Rhetorical Practice. Philosophy & Rhetoric 32, 334–348.
- DeNardis, L., 2009. Protocol Politics: The Globalization of Internet Governance. The MIT Press.

- DeVellis, R., 2017. Scale Development- Theory and Applications [WWW Document]. URL https://us.sagepub.com/en-us/nam/scale-development/book246123%20 (accessed 11.15.17).
- Elah, M., Okereke, C., 2014. A neo-Gramscian account of carbon markets: the case of the European Union emissions trading scheme and the clean development mechanism, in: Stephan, B., Lane, R. (Eds.), The Politics of Carbon Markets, Routledge Series in Environmental Policy. Routledge, London, UK, pp. 113–132.
- Epstein, D., Nonnecke, B.M., 2016. Multistakeholderism in Praxis: The Case of the Regional and National Internet Governance Forum (IGF) Initiatives. Policy & Internet 8, 148– 173. https://doi.org/10.1002/poi3.116
- Femia, J.V., 1981. Gramsci's Political Thought: Hegemony, Consciousness and the Revolutionary Process. Oxford University Press, Oxford Oxfordshire.
- Fontana, B., 2010. Political space and hegemonic power in Gramsci. Journal of Power 3, 341–363. https://doi.org/10.1080/17540291.2010.524793
- Golding, S., 1992. Gramsci's Democratic Theory: Contributions to a Post-liberal Democracy. University of Toronto Press, Toronto, Canada.
- Gramsci, A., 1971. Prison Notebooks, Revised edition. ed. Lawrence & Wishart Ltd, Chadwell Heath, UK.
- Greene, W.H., 2012. Econometric Analysis, 7th ed. Pearson Prentice Hall, Upper Saddle River, NJ.
- Hill, R., 2014. The Internet, its governance, and the multi-stakeholder model. info 16, 16–46. https://doi.org/10.1108/info-05-2013-0031
- Holden, K., van Klyton, A., 2016. Exploring the tensions and incongruities of Internet governance in Africa. Government Information Quarterly 33, 736–745. https://doi.org/10.1016/j.giq.2016.08.006
- Ives, P., 2004. Language and Hegemony in Gramsci. Pluto Press, London ; Ann Arbor, MI.
- Jones, S., 2006. Antonio Gramsci, 1 edition. ed. Routledge, London.
- Kashmiri, S., Nicol, C.D., Arora, S., 2017. Me, myself, and I: influence of CEO narcissism on firms' innovation strategy and the likelihood of product-harm crises. J. of the Acad. Mark. Sci. 45, 633–656. https://doi.org/10.1007/s11747-017-0535-8
- Katz, H., 2006. Gramsci, Hegemony, and Global Civil Society Networks. Voluntas 17, 332–347. https://doi.org/10.1007/s11266-006-9022-4
- Laclau, E., Mouffe, C., 1985. Hegemony and Socialist Strategy: Towards a Radical Democratic Politics, 2nd ed. edition. ed. Verso Books, London ; New York.
- Loughran, T., McDonald, B., 2011. When Is a Liability Not a Liability? Textual Analysis, Dictionaries, and 10-Ks. The Journal of Finance 66, 35–65. https://doi.org/10.1111/j.1540-6261.2010.01625.x
- Miglio, V., 2013. Endangered Language and Self-Determination, in: Irujo, X., Miglio, V. (Eds.), Language Rights and Cultural Diversity, Conference Paper Series, No 9. Center for Basque Studies, Reno, Nevada, pp. 33–68.
- Morton, A.D., 2007. Unravelling Gramsci: Hegemony and Passive Revolution in the Global Political Economy. Pluto Press, London; Ann Arbor, MI.

- Mueller, M., 2010. Networks and states: the global politics of Internet governance. MIT Press, Cambridge, Mass.
- Mueller, M., 2009. ICANN, Inc.: Accountability and participation in the governance of critical Internet resources.
- Mueller, M., 1999. ICANN and Internet governance: sorting through the debris of "selfregulation." INFO 1, 497–520. https://doi.org/10.1108/14636699910801223
- Padovani, C., Pavan, E., 2007. Diversity Reconsidered in a Global Multi-Stakeholder Environment: Insights from the Online World., in: Kleinwächter, W. (Ed.), The Power of Ideas: Internet Governance in a Global Multi- Stakeholder Environment. Marketing für Deutschland, Berlin, Germany, pp. 99–109.
- Robinson, W.I., 2005. Gramsci and Globalisation: From Nation-State to Transnational Hegemony. Critical Review of International Social and Political Philosophy 8, 559– 574. https://doi.org/10.1080/13698230500205243
- Scholte, J.A., 2011. Building Global Democracy?: Civil Society and Accountable Global Governance, 1 edition. ed. Cambridge University Press, Cambridge, UK; New York.
- Short, J.C., Palmer, T.B., 2008. The Application of DICTION to Content Analysis Research in Strategic Management. Organizational Research Methods 11, 727– 752. https://doi.org/10.1177/1094428107304534
- Showstack Sassoon, A., 1987. Gramsci's Politics, 2nd ed. edition. ed. University of Minnesota Press, Minneapolis.
- Stoddart, M.C.J., 2007. Ideology, Hegemony, Discourse: A Critical Review of Theories of Knowledge and Power. Social Thought & Research 28, 191–225.
- Szayna, T.S., Byman, D.L., Bankes, S.C., Eaton, D., Jones, S.G., al, et, 2001. The Emergence of Peer Competitors: A Framework for Analysis. RAND, Santa Monica, CA.
- United Nations Secretariat, 2008. Designing Household Survey Samples- Practical Guidelines, Studies in Methods. UN, Geneva, Switzerland.
- van Dijk, J., 2008. Discourse and Power, 2008 edition. ed. Palgrave, Houndmills, Basingstoke, Hampshire; New York.
- Wasike, B., 2017. Charismatic rhetoric, integrative complexity and the U.S. Presidency: An analysis of the State of the Union Address (SOTU) from George Washington to

Barack Obama. The Leadership Quarterly 28, 812–826. https://doi.org/10.1016/j.leaqua.2017.04.002

Multiple Dependent Variable Regressions: Post-estimates of MANCOVA in table 1a

```
Obs Parms
                             RMSE
                                   "R-sq"
Equation
F P
ambivalence 15 3 1.610522 0.3551
3.303571 0.0719 blame
                           1.5 3
.1713573 0.2023 1.521171 0.2577 hardship
15 3 .3646139 0.5149 6.367426 0.0130
          15 3 .2565606 0.1630
aggression
                            15
1.168886 0.3437 accomplish~t
                                   3
.8537174 0.5375 6.973673 0.0098 passivity
15 3 .3662058 0.6920 13.48165 0.0009
           15 3 .3408127 0.4113
centrality
4.1912420.0416 rapport153.28793520.691013.416610.0009 cooperation
15 3 .2097697 0.7114 14.79343 0.0006
liberation
          15 3 .2077659 0.0480
.3022395 0.7446
               15 3 .6193007 0.3995 3.992056 0.0469
denial
```

Multiple Dependent Variable Regressions: Post-estimates of MANCOVA in table 1b

Equation	Obs	Parms	RMSE	"R-sq"		
F P						
cooperation	15	3	.2097697	0.7114		
14.79343 0.0006 pa	assivit	су	15	3		
.3662058 0.6920	13.48	8165 0.0	009 ambiva	lence		
15 3 1.6105	522	0.3551	3.303571	0.0719		
centrality	15	3	.3408127			
0.4113 4.191242	0.0416	6 rapport		15		
3.2879352 0.6	5910	13.41661	0.0009			
accomplish~t	15	3	.8537174			
0.5375 6.973673	0.0098	8 hardship		15		
3 .3646139 0.5	5149	6.367426	0.0130			
denial	15	3	.6193007	0.3995	3.992056	0.0469

Spearman's correlation test on selected variables

	hein2 activity embell~t insist~e comple~y variety								
	optimism ce	rtai~y r	ealism co	mmon~y am	biva~e co	gnit~n			
	1 0 0 0 0								
hein2	1.0000								
activity	-0.6040	1.0000							
embellishm~t	-0.2066	-0.0371	1.0000						
insistence	-0.4850	0.6708	0.1939	1.0000					
complexity	-0.7163	0.5721	0.1217	0.2216	1.0000				
variety	0.2673	-0.6714	-0.2037	-0.8114	-0.1203	1.0000			
optimism	-0.5720	0.8565	-0.0048	0.5194	0.7200	-0.5919			
	1.0000								

certainty	-0.4894	0.6770	0.1920	0.9999	0.2280	-0.8128	
	0.5268 1.	0000					
realism	-0.2328	-0.1058	0.1221	-0.0653	-0.0139	0.0158	
	0.0559 -0.						
commonality	0.2765	-0.3214	0.0186	-0.6448	-0.2140	0.3340	-
	0.4442 -0.	6463 -0.1	.431 1.	0000			
ambivalence	0.8973	-0.7298	-0.1146	-0.6571	-0.6237	0.3794	-
	0.6536 -0.	6616 -0.0	0.771 0.	5641 1.	0000		
cognition	0.7829	-0.5936	-0.2845	-0.3599	-0.3781	0.3130	-
	0.3747 -0.						

F-test on the residuals of a Fixed Effects model version of HEIN 7

Fixed-effects	(within) reg	ression		Number	of obs	=	15
Group variabl	e: year			Number	of groups	=	5
R-sq:				Obs per	group:		within =
0.8895				min =	3		between =
0.8691				avg =	3.0		overall =
0.8833				max =	3		
				F(3,7)		=	18.77
corr(u_i, Xb)	= 0.0446			Prob >	F	=	0.0010
	Coef. [nterval]	Std. Err.	t	P> t	[95% Co	nf.	
hein2							
ambivalence	.328271 8390743	.2160188	1.52	0.172	182532	3	
cognition	.9225309	.3996198	2.31	0.054	022419	7	
complexity	-12.55396 2433124	5.411967	-2.32	0.053	-25.3512	3	
_cons	58.67938 20.2061	26.01967	2.26	0.059	-2.84735	5	
sigma_u	.37734573						
sigma_e	.70212272						
rho	.2241067	(fraction	of varia	nce due t	o u_i)		

F test that all $u_i=0$: F(4, 7) = 0.74

Prob > F = 0.5930

Breusch-Pagan test of the SUR models

Seemingly unrelated regression

Equation P	Obs	Parms	RMSE	"R-sq"	chi2
hein21 0.0000 hein22 0.0000 hein23 0.0000	5	3 5 5	.1586114 3 .017 3 .113	1853	140.40 0.9999 20336.94 0.9699 36.74

	Coef.	Std. Err.	Z	P> z	[95% Conf.
	[nterval]				
hein21					
ambivalence1	.4127117	.3854346	1.07	0.284	3427263
	1.16815				
cognition1	1.482972	.9758264	1.52	0.129	4296129
	3.395556				
complexity1	3.534737	15.37343	0.23	0.818	-26.59663
	33.6661				

_cons	-21.50892 125.7211	75.11875	-0.29	0.775	-168.739	
hein22						
ambivalence2	2917921 .2311089	.0309614	-9.42	0.000	3524753	_
cognition2	6190796 5292689	.0458226	-13.51	0.000	7088903	-
complexity2	-56.79805 54.47152	1.187022	-47.85	0.000	-59.12457	-
_cons	289.5046 301.9417	6.345568	45.62	0.000	277.0675	
hein23						
ambivalence3	.4210408 .6639668	.1239441	3.40	0.001	.1781147	
cognition3	.5403524 L.001427	.2352466	2.30	0.022	.0792775	
complexity3	-12.80307 8.786819	4.600211	-2.78	0.005	-21.81932	-
_cons	62.94499 99.54351		3.37	0.001	26.34648	

Correlation matrix of residuals:

hein21 hein22 hein23 hein21 1.0000 hein22 -0.9035 1.0000 hein23 -0.0628 0.4306 1.0000

Breusch-Pagan test of independence: chi2(3) = 5.028, Pr = 0.1697

Cronbach's Alphas Model HEIN 7

Test scale = mean(standardized items)

item-test	item-1	Pest	interitem		average	
Item		Sign	correlation	correlation	correlation	
hein2	15 .8068	+	0.9691	0.9406	0.5819	
ambivalence	15 .8338	+	0.9315	0.8715	0.6258	
cognition	15 0.8980	+	0.8288	0.6968	0.7458	
complexity	15 0.9266	-	0.7755	0.6133	0.8081	
Test scale	.8992				0.6904	

Model HEIN 8

Test scale = mean(standardized items)

					average
item-test Item	item-1 Obs Alpha	Sign	interitem correlation	correlation	correlation
hein21	5	+	0.9943	0.9897	0.9487
	0.9823				
ambivalencel	5	+	0.9834	0.9704	0.9630
	0.9873				
cognition1	5	+	0.9961	0.9931	0.9462
	0.9814				

complexityl	5 0.9949	-	0.9668	0.9413	0.9848
Test scale					0.9607
	0.9899				

Model HEIN 9

Test scale = mean(standardized items)

					average	
item-test Item	item-n Obs Nlpha	sign Sign	interitem correlation	correlation	correlation	
hein22	5 0.8103	+	0.9598	0.9231	0.5874	
ambivalence2	5	+	0.8829	0.7860	0.6771	
cognition2	5).9742	+	0.6690	0.4583	0.9265	
complexity2	5 0.7896	-	0.9869	0.9746	0.5558	
Test scale	.8976				0.6867	

Model HEIN 10

Test scale = mean(standardized items)

average			i	tem-test	item-rest
Item	Obs correla	Sign tion	correlatior alpha	n correlati	on
	5 0.6506	+ 0	0.8257 .8482	0.6853	3
hein23 ambivalence3 cognition3 complexity3	5 .5222	+ 0	0.9393 .7663	0.8827	7
	5 D.5511	+ 0	0.9137 .7865	0.8360)
	0.7778	+ 0	0.7132 .9131	0.5125	5
Test scale	0.6254	0	.8698		

interitem

Model HEIN 12

Test scale = mean(standardized items)

average		item-test	item-
rest	interitem		

Item		-	correlation alpha	correlation	
	15 D.3685		.7778	0.8125	
	15 D.3644		0.8874 .7748	0.8302	
	15 0.4013		0.7762 .8009	0.6740	
	15 0.4102	- 0.	0.7493 .8067	0.6378	
hein2	0.51/2	- 0 .	0.4270 .8653	0.2425	
ambivalence cognition insistence embellishm~t variety complexity	15		0.6220 .8322	0.4736	
	15).4467	- 0	0.6394 .8289	0.4953	
Test scale	0.4230	0 .	.8369		

Model HEIN 14

Test scale = mean(standardized items)

					average		
item-test	item-r		interitem				
Item		Sign	correlation	correlation	correlation		
	alpha						
	1.5		0.0746	0.0000	0 4007		
	15).8425	-	0.8746	0.8286	0.4007		
					0.0074		
	15	-	0.9342	0.9088	0.3871		
	0.8348						
	15	-	0.7016	0.6072	0.4401		
	0.8628						
	15	+	0.6967	0.6012	0.4412		
	0.8633						
	15	+	0.8239	0.7620	0.4122		
	0.8487						
	15	+	0.8169	0.7529	0.4138		
hein2	0.8496						
ambivalence	15	+	0.7112	0.6192	0.4379		
cognition	0.8617						
complexity		+	0.2429	0.0882	0.5444		
activity	0.9053						
optimism	15	-	0.5684	0.4473	0.4704		
certainty	0.8766						
realism							
commonality							
Test scale					0.4386		
	.8755						
						_	

Please paste your text here