ONLINE DELIBERATION AMONG REGIONAL CIVIL SOCIETY

GROUPS – THE CASE OF THE CARIBBEAN

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To my parents.

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SUMMARY

Deliberative democracy has been promoted as a way improving legitimacy and political equality in policy debates. This dissertation seeks to understand how deliberation takes place within the intersection of two unique spaces: dialogue among members of regional civil society groups and communication in online fora. The motivation for this research is based on the notion that existing forms of decision-making have contributed to political inequality, a major issue in areas such as the Caribbean. Accordingly I examine the online discussions of three different civil society groups in the Caribbean.

I looked at how certain variables in these fora were related to three of the main dimensions of deliberation, the use of reasoned arguments, reciprocity and reflection. With regard to reasoned arguments I examined how diversity among members, the participation of the moderator and the topic and scope of the conversation were pertinent to a discussion in a regional and multi-national setting. For reciprocity I looked at how variables related to time and the posting structure of a conversation were relevant in an online forum. Finally I looked at the strategies that were employed by participants as part of the communication process in an online forum and how these were related to processes of reflection.

To address these questions I used a combination of content analysis and conversation analysis of email conversations and interviews with participants. One set of contributions from this dissertation is methodological through the development of a codebook and the novel application of conversation analysis to online deliberation. Also, the results are significant and can contribute to our understanding of deliberation in a

context for which there has been little previous research. For example, I showed that national and occupational diversity can contribute to an increase in the proportion of reasoned arguments used in a conversation as does the presence of the moderator. However, these factors along with the scope and topic of a thread vary in their degree of influence on the use of reasoned arguments by the civil society group in question. I also showed that there are specific communication strategies that participants employ such as preference organization or speaker selection that are related to different forms of reflection evident in a conversation. Finally I observed that the posting structure of a conversation specifically the distribution of emails that participants send becomes less equal as reciprocity increases. This does not augur well for a deliberative ideal that envisions both reciprocity and equal participation.

Furthermore, when considering deliberation as a whole, the results indicate that its different parts are not always correlated with each other. None of the lists has more than one significant correlation between the three dimensions of deliberation. In fact, reciprocity and the use of reasoned arguments were never significantly correlated in any of the lists. Together these results point to another main finding of this dissertation which is deliberation as a whole is difficult to observe in practice.

Nevertheless I suggest that separately the results for each dimension can be useful from both a design perspective and for policy-makers in general. For example, encouraging the sharing of information and a more active moderator, having the opportunity to discuss regional issues could all help to promote a greater use of reasoned arguments overall. Experimenting with different ways in which group members can get to know each other might help to reduce the disparity between participation and

reciprocity. Also encouraging participants to reply inline where possible, creating easier access to the message archives and having a system for collating threads and discussions online could all promote better reflection in the lists. Finally the list might benefit from having members go through an exercise of determining whether or not and in what way decision-making should be part of their discussions.

With regard to policy-makers I note that several members reported benefits for policy-makers who themselves were members of the lists. This could stem from listening and learning from the discussions of other members or actually contributing to discussions. The groups also showed the potential to collate many different policy positions around a specific problem, thus assisting policy makers in understanding issues at a regional level.

CHAPTER 1

INTRODUCTION

1.1 Challenges to Democracy

Democracy exists in many different societies and is not necessarily restricted to any particular cultural context (A. K. Sen, 1999). In practice, the form that democracy often takes is referred to as liberal democracy. This is a system of governance where the power of decision-makers is guided by a set of laws usually embodied in a constitution with regularly elected persons making decisions on behalf of the largest possible part of the population (Lipset, 1959). Liberal democracies aim to balance the pragmatism of majority rule through representation with individual freedom. However, there is concern for what can be described as challenges to the liberal democratic model, in particular the lack of involvement in and apathy towards the political process. This is shown in low voter turnout levels and limited participation in local civic activity and ultimately the policy-making process.

The response of democratic theorists to these challenges involves alternative formulations to the liberal democracy model. One of the more significant and influential schools of thought that has emerged in this regard is deliberative democracy (Carter & Stokes, 2002). It argues for the modification of the liberal form of democracy towards an ideal of democratic legitimacy and political equality obtained through deliberation. Deliberation is the process through which relevant and opposing parties proffer reasons for positions on collective issues which are subject to the criticism of others and who in turn can reflect on the positions of others (Young, 2001). Following this broad definition there are three components of deliberation that I focus on in this dissertation. First is the

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use of reasoned arguments which is important as the basis for legitimate decision-making. Second is reciprocity or the extent that participants actually respond to each other's arguments. Finally, as Dryzek (2000:2) explains, deliberation entails a communication process that facilitates "reflection on preferences in a non-coercive fashion" which can then "influence collective outcomes". Reflection, or a consideration of one's position in light of criticism from others, is the third aspect of deliberation that I examine.

Participation that is broad in scope and deliberative in nature is part of the deliberative democratic process. One of the ways that this can occur is through civil society groups (Young, 2001). The advantages of deliberation in civil society groups include the potential to be independent from the state and private sector, providing a space for deliberation that is difficult to create in large plural democracies and focusing on specific policy issues (Elstub, 2008). This dissertation focuses on deliberation in civil society groups as a key venue for deliberative democracy.

While much attention has been paid to the so-called democratic deficit in many societies, there has also been a focus on how ICTs, in particular the Internet, can help alleviate these problems. At the heart of all Internet applications is the communication of information and ideas and a key characteristic of online communication is the ability to overcome the boundaries of time and space. If the Internet is to truly improve democracy then it will be through this function. As such, some scholars have pointed to the importance of the Internet in promoting deliberative democracy (Dahlberg, 2001b).

If we take deliberative democracy as an objective, then the broad issue I wish to examine is how ICTs such as the Internet can be used to create the space for new, or

improve existing, deliberation in civil society groups. I examine this issue within the context of the Caribbean; a region that has recently seen increased Internet use with a unique, relatively stable, but challenging democratic experience. In addition, by looking at the Caribbean I also examine how deliberation operates in an international context. Specifically, I look at the online discussions of three civil society groups from the Caribbean. Each of these focuses on a different policy domain in the region: marine and environmental issues, policies related to vulnerable communities (those living with HIV/AIDS, drug abuse and related health issues) and ICT and telecommunications policies.

Deliberation is a multi-dimensional concept, so I explore three related research questions using data from three different civil society cases from the Caribbean. First, I focus on the use of <u>reasoned arguments</u> as a key part of deliberation and examine which individual and group characteristics influence its use in civil society organizations with international memberships. For example, I hypothesize that different forms of diversity such as national and occupational will have a positive effect on the use of reasoned arguments in a conversation because participants will be encouraged to provide reasons for their positions to overcome perceived differences between each other. Other characteristics that I look at include the participation of the moderator in and the context of a conversation as factors that can influence the use of reasoned arguments.

Second, I examine <u>reciprocity</u> among these online discussions and explore how it is affected by the structural features of a conversation. This includes time-based variables such as the average delay between emails within a thread which I hypothesize to be positively correlated with reciprocity as quicker replies could lead to higher

responsiveness between participants in a conversation. In addition I look at the equality of participation and how this is related to reciprocity. I hypothesize for example that the more equal the participation in terms of replies received and emails sent the higher the reciprocity.

Third I look at reflection as a third major component of deliberation and examine how conversation level techniques employed by participants influence this process. This includes for example the strategies that participants use to identify the recipient of their emails and how this is related to different forms of reflection. Taken together the answers to these questions provide a comprehensive understanding of online deliberation in an international civil society context.

1.2 Research Background and Motivation

The motivation for this research is based on the notion that existing forms of decision-making have contributed to political inequality, a major issue in areas such as the Caribbean. In particular the policy-making process has been described as disproportionately representing the interests of elite groups in some of these countries. Deliberation through civil-society groups presents the potential for contributions to policy that can be viewed as legitimate. However, the extent to which this impact is realized is beyond the scope of the research questions mentioned above. Instead I am concerned with the process of deliberation while focusing on a specific venue – the civil society group.

Additionally, of particular interest to me is the practice of deliberation in an online space. This is relevant to internationally-based civil society groups that appreciate

the utility of online communications given the spread of their members across the region. By focusing on a specific venue (international civil society groups) that includes a particular technology (online discussion fora), I want to understand how deliberation might work in this context. Ultimately this dissertation points to specific instances in which an online medium can contribute to deliberation as well as the limitations it imposes on this process.

1.3 Significance and Contribution

This dissertation focuses on three previously understudied areas related to research on online deliberation. The first is online deliberation that is linked to regional (international) policy debates. Second is the deliberative practices of civil society groups in the Caribbean. A third area is how the different dimensions of deliberation such as the use of reasoned arguments, reciprocity and reflection relate to each other in practice.

One set of contributions from this dissertation involves the methods used in understanding online deliberation. This includes interviews with members of online groups and using conversation analysis to look at the micro-level structures of online discussions as important variables influencing deliberation. The interviews provide a subjective understanding of a phenomenon (deliberation) that is typically observed by social scientists, while using conversation analysis is a novel way of understanding deliberation. Furthermore, I employ content analysis as my primary research method and develop a codebook that builds on previous studies and can be used in research related to deliberation. Finally, I use conversation analysis as a novel way of analyzing deliberative

dialogue and one result is to show the potential of this method for understanding deliberation in general.

From a practical point of view, this research can inform civil society groups about the potential of the Internet to facilitate deliberation, how they should construct such spaces, and what would be realistic decision-making goals. By looking at deliberation around international/regional policy issues, the results can be particularly important to inter-governmental and similar organizations by showing the conditions under which online spaces can be legitimate avenues for contribution to regional policy. Finally, the inclusion of user perspectives and speech patterns in the online deliberative process can help us understand, for example, how reflection, the use of reasoned arguments and reciprocity occur online and guide how such spaces could be augmented in the future.

1.4 Structure of Dissertation

The structure of this dissertation follows the three main research questions mentioned above. I begin in Chapter Two, however, by articulating the literature and theory of deliberative democracy including the role of civil society groups and international contexts. The literature on deliberative democracy is vast and varied, so it is important from the outset to establish the parameters of the theoretical framework being used. However, the bulk of this chapter reviews the current work on online deliberation. In particular I look at the ways in which online deliberation has been explored and some of the key explanatory factors influencing deliberation in this medium. I use this review to point out issues that have not been sufficiently examined and as a result build up a list of hypotheses to test for each of the three main dimensions of deliberation.

Chapter Three outlines how I employ the main methods of the dissertation. Content analysis is used as the primary method for analysis. Accordingly I describe the approach to this analysis including the development of the codebook and approaches to coding at various levels. I also outline how I use various additional analyses such as inferential statistics and conversation analysis. This is then followed by a chapter describing the three civil society groups included in this research as well as a summary and description of the content analysis results for each group.

Chapters Five to Seven contain the main results, analyses and discussion of the dissertation. Each chapter addresses one of the three main research questions and relates to each of the dimensions of deliberation – the use of reasoned arguments, reciprocity and reflection. Each chapter also employs a mix of research methods with an emphasis on one or a few depending on the question being addressed. Finally each chapter consists of analyses of all three civil society cases. In this way, the dissertation is structured according to the research questions rather than individual cases. Thus this research aims to understand how the different dimensions of deliberation operate online rather than telling the story of each online group.

As such, in Chapter Eight, I begin by describing deliberation in each group as a way of understanding deliberation in a comprehensive manner. Chapter Eight therefore serves to consolidate the results from the previous three chapters by considering deliberation as a whole while positing several concomitant implications for forum design, civil society groups and policy makers. I argue that the three dimensions of deliberation seldom occur together in the three lists suggesting that in practice, deliberation as a whole might be difficult to achieve. However, operationalizing deliberation as described above

allows me to identify factors that are associated with each dimension in an international civil society context which in turn points to avenues for improvement. For example, national and occupational diversity have a positive impact on the use of reasoned arguments, a more equal participation of members in a conversation (perhaps through greater inter-personal association) is beneficial for reciprocity, and improved access to emails archives and thematically collating threads are useful for reflection. These findings can then be acted upon by civil society groups to improve forum design in specific ways. At a broader level policy makers can also use these online groups to participate in and understand regional views to common policy problems. Finally, I suggest several potential areas that can extend the work of this dissertation.

CHAPTER 2

ONLINE DELIBERATION

2.1 The Theory of Deliberative Democracy

As mentioned earlier, deliberation is the process through which concerned parties put forward reasons to support positions on collective issues which are subject to the criticism of others and who in turn reflect on each other's arguments (Young, 2001). That is, participants are encouraged not only to consider their interests but those of others through criteria acceptable to all. To expand on this thought, one of the main conditions for deliberation is that everyone is able to contribute equally to the deliberative process. Political equality in this sense results from the articulation of all relevant views in public deliberation and not just the equal opportunity to vote (Rosenberg, 2007).

The theory of deliberative democracy posits that such deliberation can reduce the inequities of political power between parties because decisions are arrived at through reasoned argument and not the use of threats or force. Thus when deliberation becomes inclusive it is viewed as the key source of legitimacy in democratic decision-making (Manin, Stein, & Mansbridge, 1987). Outcomes of the deliberative process are perceived as legitimate precisely because, everyone was included in the process, their views were treated equally and decisions were based on reasoned arguments. Inclusion here does not necessarily mean everyone physically participates, but everyone's views should be represented and treated with equal weight (Young, 2000). This conception of democracy differs from what can be described as aggregative decisions that are based on preferences (i.e.; voting) (Gutmann & Thompson, 2004). Alternatively, deliberative democracy requires participants to provide the reasons for their preferences – and furthermore these

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need to be justified. It leads to consensual decisions based on reasoned public discussion of pertinent issues. Comparable concepts to deliberative democracy include "strong democracy" and "discursive democracy" among others (Barber, 1984; Dryzek, 1990). Regardless of the label the aim of improved legitimacy and political equality through deliberation are constant.

There are of course others who take a critical view of the theory of deliberative democracy. Many of these scholars focus on the dynamics of communication within groups (e.g.,Ryfe, 2005). Bachtiger et al. (2007) note that the organizational and wider institutional rules under which a group operates can influence their deliberation. For example, their research showed that there were differences in the quality and level of deliberation within legislatures depending on whether they existed within a presidential or parliamentary system. In terms of the civil society groups, meeting, petition, and other decision-making rules can themselves be exclusionary (Young, 2001) or biased again less privileged groups (Sanders, 1997).

Mendelberg & Karpowitz (2007) note that some groups norms can also be influential. Using an experiment with student groups deliberating about justice, they found that the process served to reinforce the norms of the dominant group and this was shown by the fact that outcomes varied depending on the gender make-up of the group and whether decisions followed a majority or consensus model. In a similar vein Sunstein (2000) and Stasavage (2007) have argued that in some cases deliberation leads to group polarization. However, this point has been countered by Wu & Huberman (2008) in their study of online groups.

These criticisms are part of the larger debate on the efficacy of deliberative democracy theory. In general the goal of this dissertation is not to test the theory of deliberative democracy per se, however, I do seek to understand how deliberation can occur in practice, and in order to do this I further specify its process.

2.2 The Process of Deliberation

Several authors have outlined the specific characteristics of deliberation and I summarize these here (Gutmann & Thompson, 2004; Noveck, 2003; Rosenberg, 2007; Weeks, 2000). These can be further sub-divided into the conditions for deliberation and the nature of deliberation:

Conditions for Deliberation:

(i)   The deliberative space must be accessible, inclusive and there must be a broad and ideally representative participation

(ii)   The public must be informed about issues, underlying problems and alternative policy options

(iii)   There are available opportunities for deliberation which do not necessarily have to be face to face

(iv)   An ability to communicate in an transparent, equal and accountable manner (non-anonymous)

Nature of Deliberation:

(i) Reasoned arguments – assertions or arguments are supported by reasons and that these arguments are presented in a form that can be verified by others. Alternatives to arguments can include narratives, stories, jokes, etc.

(ii) Participants act independently and respond to each other's views as and when they wish

(iii) Participants also respect, listen to and reflect on the views of others

(iv) Outcomes are guided by a concern for the common good

(v) It leads to credible decisions that are arrived at through a legitimate and valid process

One can therefore define the process of deliberation as consisting of several crucial dimensions. In particular I am concerned with the first three in this dissertation: the use of reasoned arguments, participants responding to each other's views or reciprocity and reflection or considering the views of others. I expand on each of these and discuss the reasons for not exploring the last two aspects (outcomes and decisions) below.

First is the use of reasoned arguments. This entails the provision of reasons to support or justify a position taken by a participant to a discussion. By not providing a reason for their argument, the participant increases the potential for others to respond to factors beyond the argument itself such as the personal status or power of the participant (J. Cohen, 1997). Arguments supported by reasons can therefore increase the legitimacy of a deliberative exercise by limiting the critique and approval of arguments to the reasons offered in support of those arguments.

The concept of reason has of course been the source of much scholarship from early history to the present day. Philosophers such as Kant (1784) for example considered reason and logic to be the basis for people to be think for themselves instead of subjugating decisions about their lives to those in authority. He made a distinction between private reason that relates to personal obligations and public reason that relates societal concerns. Rawls (1997) developed the notion of public reason further as a process of offering reasons on matters related to public welfare and basic justice. Indeed, Sen (2009) argued that public reasoning can help societies remove situations of injustice.

While it is the concept of public reason that is of relevance here, the use of the word "reason" requires further clarification. In this case I am not using the term "reason" in the abstract sense as in terms of an ability to think rationally. Instead I take "reason" to mean an explanation or justification for a given position. For example, if someone says "I like X because of Y," then I would interpret Y to be a reason and the entire phrase to be a reasoned argument. I use this definition of reason because of the relevance of reasoned arguments to a deliberative exercise as noted above. Furthermore, while the capacity to reason and the process of reasoning by an individual is important, what is particularly relevant for deliberation is the provision of reasons that can be critiqued or approved by others. Thus I focus the existence of reasoned arguments as an important dimension of deliberation.

Another related issue is what should count as a reason in the case of reasoned arguments. In discussing reason, the reader might gather that there is an assumption of reasonableness or rationality in what is taken to be a reasoned argument. However recall that reason here refers to an explanation and in fact such an explanation might not be

reasonable or rational at all. If the provision of reasons is paramount for deliberative participants, then what constitutes a valid reason is for the participants themselves to decide. Indeed that is one of the goals of deliberation: to weigh reasons to different arguments and determine what is the most appropriate choice or outcome. Thus I do not attempt to distinguish between "good" or "bad" reasoned arguments in this research, but instead determine whether or not arguments are backed up by an explanation. What constitutes an explanation is perhaps a more pertinent question. Rosenberg (2007) notes that in addition to facts and other forms of evidence, deliberative discourse can also include jokes, stories, and other forms of narrative – particularly in multicultural contexts. Thus I view the use of narratives as another method of explaining or justifying an argument.

The second aspect of deliberation that I explore in this dissertation is reciprocity or the extent that participants in a discussion respond to each other's arguments. Deliberative democracy is predicated on the giving and receiving of ideas between relevant parties to a public issue. By responding to each other, participants can continue to provide reasoned arguments that critique or support previous ones. In general then reciprocity represents the extent to which participants exchange different points of view in a conversation (Graham & Witschge, 2003).

The third aspect of deliberation that I focus on is reflection. Reflection implies that participants consider the positions of others in light of their own positions and assumptions (Dahlberg, 2001b). This is particularly relevant where a participant's position is subjected to the criticism of others. By receiving criticism to their views the participant is forced to possibly reconsider or reformulate their original position.

Reflection then is a learning process through which the participant gains knowledge about the positions of others and how this compares to his or her views.

The final two aspects of deliberation listed above are (iv) outcomes concerned with the public good and (v) legitimate decisions. As noted above I do not attempt to explore these concepts in this dissertation. The point about outcomes is meant to emphasize the deliberation is ideally focused on public issues. This has however already been addressed by an emphasis on public as opposed to private reason. In other words in examining deliberation I only look at discussions around public policy issues.

The omission of the last aspect, legitimate decisions, requires greater clarification. I recognize that the process of deliberation, specifically the use of reasoned arguments, reciprocity and reflection, can be understood to lead towards legitimate decision-making. However for practical purposes I choose to examine the process of deliberation as opposed it outcome – legitimate decisions. I say practical because the investigation of deliberative outcomes should include some assessment of their impact. This could involve assessing the legitimacy and efficacy of decisions which could imply a much larger research project. Thus in this dissertation I limit my investigation of deliberation by focusing on the three main dimensions of the deliberative process mentioned above.

The distinction between the process and outcome of deliberation is in fact part of a larger debate among theorists as to the purpose of deliberation. This is one of the ways in which scholars have employed different interpretations of the theory of deliberative democracy.

2.3 Different Approaches to Deliberation

As Gutmann & Thompson (2004) note, some theorists debate whether deliberations are more important for their epistemic or expressive values. Deliberation can be epistemic in the sense that it is primarily concerned with an outcome of legitimate decisions, while an expressive value implies that we are concerned with the mutual respect and insight that participants can gain of each other as a result of the deliberative process (Gutmann & Thompson, 2004). It should however be noted that all these distinctions are often quite blurred and not easily separated in practice. Another distinction concerns the rules of deliberation. Some theorists might emphasize the procedural aspects of deliberative democracy while others choose to focus on how inclusive such procedures are.

Perhaps a more prominent distinction in the literature occurs between what Mansbridge (2007) calls the "pluralistic" as opposed to the "philosophical" view of deliberative democracy. Much of the existing literature in this field draws on the work of Jürgen Habermas and his conception of the public sphere (Habermas, 1996). For Habermas the public sphere is a discursive space that is distinct from the state and economy and through which people can hold discussions on issues that are relevant to them. Deliberative democracy theorists who have adhered to Habermas' notion of the public sphere (including Habermas himself) have envisioned a path for reaching legitimate decisions (by deliberation alone) and also what can be considered relevant discourse (only reasoned arguments) (Mansbridge, 2007). This view can be described as the "philosophical" approach in that it limits the avenues and methods for deliberation based on a more specific interpretation of the theory.

Others have taken a more expansive definition of what the deliberation entails and how legitimacy and reasoned arguments are arrived at. This expanded view is akin to what Mansbridge (2007) calls the "pluralistic" view of deliberation. For example, Dewey (1927) accepted that there was some legitimacy in the voting process while recognizing the critical role of deliberation in decision-making. Another point which I discuss in greater detail below (Section 2.4 Deliberative Democracy and Civil Society), is that the philosophical view of civil society argues that it must function independently from the state in order to be effective. Alternatively, the pluralistic view considers collaboration between civil society and the state as beneficial for deliberation.

In general this dissertation is based on the pluralistic view of deliberative democracy. With regard to what can be considered relevant discourse for deliberation, for example, I follow Rosenberg (2007) by including narratives as an alternative way of explaining or justifying arguments and not just reasoned arguments. Also, I consider civil society based deliberation that includes public and private sector input to be acceptable forms of deliberation.

2.4 Deliberative Democracy and Civil Society

While deliberation should take place in a variety of venues (Gutmann & Thompson, 1996) such as parliaments or open public debates, one important vehicle for deliberation is civil society groups. Such groups can help to overcome some of the challenges faced by increasingly large and plural societies by reducing the size of the polity in question, reducing the potential for external domination, and reducing the scope of the agenda (Elstub, 2008). Accordingly, I use discussions within civil society groups

as the primary source of data in this dissertation to further understand how deliberation

takes place in this context. I use a simple definition for civil society groups; that is

organizations that are outside the public sector, commercial sector, and are not affiliated

with political parties. Thus I include charity groups, community associations, NGOs

focused on specific issues such as the environment, etc. Young (2000) notes that one of

the ways to distinguish civil society activity is in the way action is coordinated. In this

view, we can imagine how the state (through legislation and enforcement) and the private

sector (through a motivation for profit) coordinate action. Civil society groups on the

other hand typically involve voluntary and non-profit motives.

There is indeed a large and diverse body of literature that looks at civil society in

democracies. As this is not a focus of my research, I want to employ the concept of civil

society used by Cohen & Arato (1992) – it provides the means for participation and

interaction between citizens and is therefore important for democracy. This conception

emphasizes its function as a complement to other democratic institutions. Similarly and

following the distinctions made by Hendriks (2002), in terms of the role of civil society

in a deliberative democracy, I focus on a civil society that can collaborate with the state.

This contrasts with what has been described as the philosophical view of deliberative

democracy which, for example, includes Dryzek (2000) who argues that civil society

groups can make the greatest contribution to deliberative democracies when they are

separated from the formal institutions of decision-making within the state.

One reason that the focus on civil society is particularly relevant is the difficulty

in actually implementing deliberative practices. While Warren (2007), for example,

suggests that not enough work has been done with regard to the appropriate institutional

arrangements that are conducive to deliberation, Elstub (2007) notes that civil society groups can help overcome this challenge by being one part of the solution. Specifically he notes that they offer the institutional space for decentralized deliberative decision-making.

2.5 Deliberation in International Contexts

To further specify the focus on this research exercise, I want to look at deliberation within civil society groups in international environments. While some have called for more deliberation in international fora, it is still a growing sub-field with very little research. Several observers in this area have taken multi-lateral institutions as their starting point. Verweij & Josling (2003) note that many of these institutions have been plagued by the so called democratic deficit – and suggest that deliberative practices can be extended to these organizations to help counter this trend by making decision-making more transparent, more legitimate by making additional perspectives available for consideration, and can have a positive democratic effect on non-democratic states.

Other authors have identified similar democratic deficits in specific international governance arrangements such as in international labor standards (Fung, 2003), international environmental issues (Baber & Bartlett, 2006), and global financial systems (Germain, 2008). In each case these authors posit that the adoption of deliberative democratic practices can improve the efficacy of the governance of these sectors. Fung (2003) suggests that the benefits of deliberative democracy to domestic arenas such as greater knowledge sharing, more representative decisions and enhanced credibility and legitimacy could also be applied to the development of international labor standards

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through deliberation with an emphasis on the interaction between civil society and corporate entities. Also, Baber and Bartlett (2006) suggest that one idea that can be developed is for citizens juries to be established to deliberate specific international environmental issues across the globe. Bohman (2004) posits that regardless of the specific institutional solution, deliberation should be incorporated at multiple levels of decision-making in any international context.

King (2003) notes that these benefits are also important to collective decision-making within multilaterals organizations – particularly in terms of increasing the legitimacy of decisions that can affect many. She argues that this function is even more relevant than the potential for knowledge sharing or changes in beliefs/opinions when we consider the fact that there is often no clear *demos* with regard to multilateral decisions. In such cases, the greatest benefit of deliberation could be legitimacy.

Nanz & Steffek (2005) note that in alleviating the democratic deficit of international governance, civil society groups have an important role to play as they could provide an important link between international organizations and the population. This would greatly augment the role played by national governmental delegates in international deliberations by bringing the values and opinions of ordinary people to the table.

2.6 Deliberation via the Internet

Even when we consider civil society groups and an international context in terms of a deliberative democracy, we are still left with the issue of how to actually enable deliberation. There have been few attempts to actually implement deliberative democratic

practices mostly because of the broad conditions mentioned above. If the deliberative practices are difficult to implement then can the Internet provide the mechanism through which such practices can be realized? There are many who would answer in the affirmative (e.g., Fishkin, 2000), including those that have focused specifically on deliberation via the Internet.

Buchstein (1997) noted early on that with the rise in Internet use in the United States, there were suggestions of realizing Habermas' notion of the public sphere. That is, there was a *prima facie* case that online discourse could meet the requirements of a public sphere – e.g., freedom of expression, participation outside traditional decision-making structures, an unrestricted agenda, and the potential to shape public opinion through discussion. In order to understand the underlying causal mechanisms that could support such arguments we need to first look at the characteristics of communication on the Internet.

Rafaeli (Newhagen & Rafaeli, 1996) outlined several such characteristics of the Internet: information in multi-media formats, non-linear (goes beyond the traditional linear model of communication to more interactive/transactional models), decentralized control, the "elasticity of synchronicity" or the availability of different degrees of communication between the purely synchronous to asynchronous, and interactivity. Typically interactivity is conceived across multiple levels, that is, from simple two-way communication up to a greater reaction between participants to each other and alternating the roles of sender and receiver, to finally being able to change both content and context of the communication. While this implied that before the highest degree of interactivity

was in the form of the face to face encounter, online communications are now able to provide this level of interaction (Dijk, 2000).

The issue then is to what extent these aspects of communication via the Internet facilitate deliberation. With regard to the characteristics of deliberation mentioned earlier, we can note some of the relationships that have been identified. The attribute of the Internet to reduce the influence of time and space are particularly relevant. For example, Klein (1999) identifies these features when arguing that online fora can overcome some of the problems of organizing and communicating in citizen groups. Deliberations (including those online) can also contribute to the build-up of social trust post discussions in civic groups (Price & Cappella, 2002). Also Hill & Hughes (1997) show that online groups can also acquire a similar level of cohesion to groups of the physical world.

The need for inclusive and representative communications is also important. For example, Witschge (2004) notes that depending on the forum, online communications can also facilitate the need for heterogeneity by bringing together a diverse and different group of actors. Online participation in civic associations can also alleviate some of the skewed membership observed in offline participation (M. J. Jensen, Danziger, & Venkatesh, 2007). This is perhaps related to another feature of online communication that was not mentioned above: the reduction in social cues. It has been argued that this feature engenders equality in online deliberation by removing offline factors such as status, social hierarchy or power relations. Of course such descriptions maybe premature and too optimistic and others such as Weber et al. (2003) have generally expressed skepticism about the potential of the Internet to overcome existing biases in participation. However,

there is little research on how participants themselves feel about these perceived inequities (Witschge, 2004).

The above mentioned features of the Internet also make large-scale deliberations more manageable. In one study Seong-Jae Min (2007) found that both online and face to face deliberation were equally efficacious in terms of its effects but the online option could be more cost effective on a larger scale. The use of asynchronous communications is useful in this regard (Coleman & Gøtze, 2001). Asynchronicity is also important when we consider the need for reflection in deliberation. This feature of online communications provides the opportunity through time and information to consider the arguments of others.

In addition to time, scale and inclusion, online communications also facilitates the diffusion of knowledge. This is a key part of having an informed public to engage in deliberation. In a study on deliberations with government agencies, Stanley & Weare (2004) showed that a broader range of topics can be introduced to the decision-making process with new participants.

2.7 Evaluating Online Deliberation

Exploring the connection between the theory of deliberative democracy and online discussion groups is part of an emerging body of research (Janssen & Kies, 2005). While there is some skepticism about certain types of online groups in this regard (Wilhelm, 1999; Witschge, 2004), the potential for deliberation is still there (Dahlberg, 2001b). Janssen & Kies (2005) point to a small set of studies that have put forward variables/frameworks with which to assess online deliberation. They argue that several of

these studies often end up looking at different aspects of deliberation through their focus

on different sets of variables. Also they argue that most of this research is incomplete

because of its reliance on textual analysis of the discussions while not including the

subjective perspectives of participants. Table 1 below lists some of these along with more

recent research.

Table 1 – Variables Used in Some Studies Measuring Online Deliberation

Variables	Studies
Reasoned-arguments	Graham and Witschge (2003), Dahlberg (2001b), Stromer-Galley (2005, 2007), Wilhelm (1999), Jensen (2003), Zhang (2007)
Reflexivity	Graham and Witschge (2003), Gastil & Black (2008)
Reciprocity	Graham and Witschge (2003), Stromer-Galley (2005, 2007), Jensen (2003), Beierle (2004), Gastil & Black (2008)
Inclusion	Dahlberg (2001b), Stromer-Galley (2005, 2007), Wilhelm (1999)
Equality	Stromer-Galley (2005, 2007)
Autonomy from state and power	Dahlberg (2001b)
Story-telling	Black (2009)
Decision-making and legitimacy	Beierle (2004)

While there is some overlap in how the authors define these variables both within

and across frameworks, we shall briefly review how some of these have been used. The

first set of variables listed in Table 1 was actually included in almost all studies as one of

the main pre-requisites for deliberation; that is evidence of reasoned arguments. This

primarily implies that assertions are backed up by reasons or evidence that can be

validated by others.

Reflexivity refers to the degree that participants consider the positions of others

particularly in light of their own assumptions and arguments. In examining this variable,

Graham and Witschge (2003) looked at the type of evidence used in counter-arguments

and how this might have changed the original person's position. This can also be assessed by looking at how a person's argument incorporates those of others in the discussion. Note that few other studies have explicitly incorporated this element of deliberation. This is primarily because it includes an internal process that is difficult to observe externally (Janssen & Kies, 2005).

Reciprocity is the extent to which participants respond to each other's assertions and positions. Some define this is terms of different types of messages including responses (J. L. Jensen, 2003). Graham and Witschge (2003) take this somewhat further by developing what they called a "web of reciprocity." This is a visual representation of how all participants responded to a particular message and could alternate between message to message, participant to participant or both.

The next three variables in the table refer to the conditions required for deliberation mentioned earlier. Inclusion refers the level of access that interested parties have to the forum and equality refers to the ability of all participants to contribute to the discussion. Dahlberg (2001b) is perhaps one of the few authors to look at a forum's autonomy from the state because his theoretical framework is closely aligned to Habermas' public sphere or the philosophical view of deliberative democracy mentioned earlier.

In order to assess deliberation without placing an emphasis on the use of reasoned arguments, Black (2009) looked at how participants used stories and personal experiences to support their arguments in debates about the redevelopment of the World Trade Center site post 9/11. She argued that story-telling should be considered as a legitimate form of discourse in deliberation.

Finally, Beierle (2004) includes the variable of decision-making to analyze if the deliberations actually lead to a decision. This might seem obvious but most of the studies reviewed here emphasize the process the deliberation with less analysis on its outputs. In addition, he includes a variable for legitimacy. Although this is implied in other studies, Beierle attempts to explicitly gauge this in terms of the participants' perceptions. In this sense his study was different as most of the research in this area is limited to analysis of the texts of deliberations.

The findings from most of these studies vary in terms of the level of deliberation found in online spaces. Dahlberg (2001b) outlined several criteria along which we can gauge the level of deliberation in an online forum. He applied these criteria in a subsequent review of several online fora ((Dahlberg, 2001a). He found that although encouraging, many fora did not completely live up the requirements of the public sphere for several reasons including limited reflexivity in discussions, difficulty in verifying information, and domination by individuals or groups.

Beierle (2004) studied an online forum set up by the EPA in the US to elicit input in the development of its Public Involvement Policy. By analyzing the message threads posted on the website set up for discussion and a survey of the participants, he argues that deliberation was evident but did not result in any significant decision-making. Also, many participants had a positive view of their experience. Stanley et al. (2004) looked at another government experiment with deliberation. Here the subject was a national online forum on commercial vehicle safety. They argue that only some message threads in the forum exhibited reflection and dialogue. While both these studies were able to capture the opinions of participants directly, their operationalization of deliberation was limited and

essentially examined the extent that discussions took place and whether or not decisions were made. As such the use of their surveys were also limited.

Other studies that were more careful in making the transition from theory to variable include the works of Stromer-Galley (2007) and Wilhelm (1999). Both begin by dissecting the notion of deliberation into various dimensions that could be operationalised into several variables. However, they end up with somewhat different variables (as seen in Table 1 above). Also, Wilhelm draws a sample of online political discussions from Usenet groups, while Stromer-Galley's sample is drawn from an experiment in deliberation conducted at the Carnegie Mellon University. Wilhelm's conclusion is that there was very little in terms of deliberation while Stromer-Galley is more optimistic given evidence of reasoned arguments, reciprocity and heterogeneity.

Finally, Graham & Witschge (2003) observed that much of the work in this area is limited in terms of the transition from theory to the practice of the deliberation. As a result they proposed a method for assessing online deliberation which essentially deconstructs the process of deliberation into three main dimensions: a rational-critical debate, reciprocity and reflexivity. Their subject matter was online discussions that took place on a British government website and revolved around the topic of immigration. However, given their emphasis on developing a suitable methodology for this field, the extent of the application of their framework was limited to only one thread of 25 messages. They employed a content analysis of this data and developed coding categories for each of their three dimensions. Based on this limited data set they concluded that there was evidence of deliberation in that discussion.

Of relevance here is their approach to evaluating online deliberation. They argue that by examining deliberation in terms of these three dimensions one can best adhere to the theoretical foundations of deliberation. I follow up on their suggestion by also looking at the process of deliberation in terms of three different dimensions, however I differ in terms of how these are defined.

The first dimension they define is the rational critical debate which includes evidence that participants use reasoned arguments and respond to each other's arguments via counter-arguments. However, by looking at the entire debate and not just the use of reasoned arguments there is an overlap with the other two dimensions they use. For example, their second dimension, reciprocity, is the extent that participants respond to each other's arguments. Furthermore, their third dimension is reflexivity or how participants consider the arguments of other in light of their own positions. They propose to assess reflexivity through counter-arguments, which again is an indicator for the rational-critical debate.

To better identify the various aspects of deliberation I do not employ the notion of the rational-critical debate and instead focus on the use of reasoned arguments. If we view deliberation as a debate then other aspects of that debate such as response and criticism are addressed in the other dimensions mentioned above: reciprocity and reflexivity or what I simply term reflection. In sum I examine the use of reasoned arguments, reciprocity and reflection as key aspects of the process of deliberation discussed earlier.

2.8 Factors Influencing Online Deliberation

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In general most authors expect that the Internet can facilitate deliberation but under certain conditions. There are several studies that have attempted to identify factors that affect deliberation online. Table 2 lists some of these.

Table 2 – Studies Identifying Factors That Influence Deliberation Online

Variables	Authors
Online structure/Design	Noveck (2003), Wilhelm (1999), Wright & Street (2007)
Moderator	Zhang (2007), Stromer-Galley (2007)
Individual characteristics	Price & David (2004), Fiore et al. (2002), (Shane, 2004)
Diversity	Stromer-Galley (2007), Zhang (2007)
Anonymity	Jensen (2003)
Provision of information	Polletta, et al. (2009)
Agenda	Jensen (2003)

Noveck (2003), following Lessig (2000), notes that online behavior is shaped by the underlying code that constitutes the Internet and its associated applications. Code is therefore combined with existing laws, norms, etc. to shape deliberation. These structural factors are important in understanding the scope for deliberation in a given forum. Thus she focuses on specific software applications that are designed for online deliberation while accounting for these structural conditions (see for example her description of the application Unchat in Noveck, 2004). However, her assessment focuses on the structural with little analysis on the more substantive elements on deliberation such as reflection or reciprocity. Similarly, Wilhelm (1999) and Wright & Street (2007) also argue that the design of the online forum such as rules for posting and interacting can encourage or inhibit deliberation.

A specific example of structure is the type of governance in the online space. In fact, the need for regulation in an online space becomes greater as barriers to entry

become lower and the number of participants increase. In such cases, moderation becomes an option, although the way in which this should occur can be a debatable issue among users. Typically the moderation function is carried out by one or a few individuals – a situation which can be problematic. Alternatively, some online spaces such as websites have implemented distributed moderation mechanisms which have been shown to be effective with a few limitations (Lampe & Resnick, 2004). Zhang (2007) argues that issues such as moderation and the degree of diversity in the forum can combine to influence the overall level of deliberation.

Apart from structural factors, Price & David (2004) identified individual factors that are also relevant. They surveyed participants of an online deliberation exercise and suggest that personal characteristics such as education, political knowledge and to a lesser extent gender also influence online deliberation. Also Fiore et al. (2002) note that people exhibit different levels of activity in online fora. Their research suggests that more active participants are more likely to be in more active discussions. This could potentially have implications for the type of people that are more involved in online deliberations. Finally, the extent that participants feel that their deliberation will lead to actual decision-making can make the online space more deliberative.

Political culture – the attitudes and values that people hold about government, policies and politics in general – has also been posited as an important consideration for online deliberation. For example, participants with extreme ideologies might be more prone to using verbal attacks on others thereby making deliberation difficult. From an international perspective political culture is also important in terms of not limiting the generalizability of the effects of deliberation to culturally specific behaviors (Shane,

2004). Also, in terms of assessing deliberation it might be necessary to account for differences in political culture in a forum with international membership.

Related to these is the level diversity or heterogeneity among participants. One way to define this was by identifying the level of disagreement in a discussion (Stromer-Galley, 2007). Another approach is to look at political persuasion (Democrat/Republican) in the US (Zhang, 2007). Both authors argue that diversity as they define it is relevant in explaining deliberation. In terms of anonymity, Jensen (2003) considers the extent to which persons reveal their identity in the course of the discussion and argues that this can be detrimental to effective dialogue online.

Polletta et al. (2009) argue that the provision of information is beneficial to the deliberative process by ensuring that knowledge is equally shared among participants. However, this knowledge was better utilized by those with more Internet experience undermining the equality condition for deliberation. Interestingly enough, information was included in Stromer-Galley's (2005, 2007) framework as a component of deliberation rather than a factor influencing deliberation. This illustrates the challenges in operationalizing deliberation as different researchers employ different approaches and definitions in their studies of online deliberation.

Finally, in terms of other factors, Zhang (2007) and Stromer-Galley (2007) look at the degree of regulation in the forum and specifically on the nature of moderation. The issue of linkages to external entities is important from a more pluralistic point of view. Thus Jensen (2003) includes a variable to account for the introduction of issues related to external agendas.

2.9 Directions for Research

The above review allows us to make several observations that can guide this dissertation and set the context for the research questions that I develop later. First, these studies emphasize the communicative aspects of deliberation and not the institutional. That is only a few discuss the outputs (decisions) or the influence of external entities. However none take up the issue of how these outputs could be institutionally linked to other decision-making bodies within society. This is of course an important issue and another major area of research within deliberative democracy. It is, however, beyond the scope of this dissertation and points to an assumption in many of the above studies and one that is taken here – that the impact of the Internet is subject to the wider institutional context within which it operates (Banerjee, 2003; Corrales, 2002).

Second, a reoccurring issue that is brought up by several authors points to a gap in the existing research. Witschge (2004) argues that based on the current empirical evidence, it is too early to make a judgment on the effectiveness of the Internet in creating deliberative spaces. Previous results have given conflicting findings and one problem stems from not properly understanding the motives of participants. This requires more interpretive questions that go beyond observation. This is important for understanding aspects of deliberation such as reflexivity (Graham & Witschge, 2003), understanding how reasons put forward are interpreted by others (Rosenberg, 2005) or perceptions of participants in terms of perceived inequities in deliberation (Witschge, 2004). Thus while content analysis is the typical method employed in many of studies, these could be strengthen through the use of interviews for example.

Third, several studies have attempted to design mechanisms for online discourse as opposed to observing existing fora (Noveck, 2004). Also, Fishkin (1991) developed a technique called deliberative polling to bring together experts and ordinary citizens to discuss and modify their views on specific issues, albeit on a very small scale. Because of the problems of scale most researchers have focused on existing online fora as potential spaces for deliberation with the aim of indentifying the conditions under which deliberation might be augmented. Thus it might be more feasible to improve existing spaces for deliberation rather than to create new ones.

Fourth, another observation about research on online deliberation is that different Internet applications imply different qualities of communication. This in turn can influence levels of deliberation. We can infer this from studies that showed features such as asynchronicity, anonymity or moderation to be important and which are not always present in an online application. Some studies of online discussions conducted in the computer-mediated communication (CMC) field focus on chat rooms or other open forums such as Usenet. As a result some studies looking at online deliberation have followed similar paths with limited positive results (Stromer-Galley, 2005; Wilhelm, 1999; Zhang, 2007). Therefore a potentially better way to identify existing online spaces is not through the typical chat rooms or Usenet groups as these are often noisy with voluminous discussions. Many of the messages on Usenet, for example, are of limited value to participants (Fiore, et al., 2002).

Rather, one option could be to look specifically at fora whose scope is smaller and focus more specific and would therefore attract a limited set of participants – but is still open and inclusive. It is possible then that such more focused fora could be more

deliberative. In this dissertation I focus on the online discussions of civil society groups as specific examples of such fora. This choice is also based on the arguments made earlier about the importance of these groups in any deliberative democracy. One advantage of such fora is that they exhibit features which according to Janssen & Kies (2005) are conducive to deliberation such as asynchronous spaces, identifiable participants and the existence of a moderator.

One tool used by many civil society groups is an email listserv which distributes each email to all members of a list at the same time. Although there are other online tools employed by these groups to facilitate discussion, email lists and their archives can facilitate many of the goals of research of this nature by providing a historical archive of dialogue among members and evidence of who communicates with you. They also appear to be fairly common among many different groups. Thus I examine email lists associated with civil society groups.

The fifth observation about previous research on deliberation is that although some researchers have called for more deliberation at an international level there has been very little research in this regard. For example, Nanz & Steffek (2005) outline a potential research agenda that includes civil society groups. Thus I want help fill this gap by looking at civil society deliberation in an international context – that is, civil society groups whose scope covers several countries. This focus limits the type of civil society groups that I am interested in as well as the examples of online spaces that exist for such groups.

2.10 Research Questions

While cognizant of the various conditions required for effective public deliberation, I will focus on three key dimensions of the nature of deliberation. These are similar to what many other researchers have used when dissecting the deliberation variable, although perhaps not in the same study (Table 1). First, there is the use of reasoned arguments, which is important in arriving at legitimate decisions. Second is the notion of reciprocity or the extent to which participants respond to each other's arguments. Finally there is the concept of reflection of a consideration of one's position in light of the positions of others. Operationalizing deliberation in this way allows me to analyze different aspects of deliberation separately and therefore be more specific in identifying causal and other relationships between these aspects and hypothesized variables. The following questions then relate more specifically to each of these three dimensions. While I am interested in the overall level of deliberation achieved in each forum, I also want to look at the ways in which these dimensions are shaped. That is, I want to build on previous work by looking at additional variables that might influence deliberation particularly in an international civil society context.

2.10.1 What Factors Influence the Use of Reasoned Arguments During Online Deliberations in an International Civil Society Context?

The use of reasoned arguments is a common feature of most research in online deliberation. As noted above, the context here consists of civil society groups in an international setting. One important consideration in such as setting is diversity of participants. Both Stromer-Galley (2007) and Zhang (2007) discuss diversity in terms of political persuasions or positions in an argument. Zhang's (2007) study shows that the

more diverse the participants (in terms of Democrats vs. Republicans) the more reasoned arguments are used in a discussion. Stromer-Galley (2007) infers diversity by looking at the level of disagreements or differences in opinions in a conversation but does not attempt to relate that to the use of reasoned arguments. As Cohen (1997) suggests people would be encouraged to use reasoned arguments where there are in dialog with others of diverse backgrounds in order to get them to accept their position. I submit that given an international context another way to look at diversity is in terms of cultural or national background. Given a civil society context one could additionally consider diversity in terms of occupation. I therefore hypothesize that diversity of participants in a discussion (in terms of country and occupation) is associated with an increase in the use of reasoned arguments in that discussion.

Following the suggestions of Rosenberg (2007) and the findings of Black (2009), I consider the use of narratives (such as stories, jokes, etc.) as an alternative method of supporting arguments in a discussion. What is interesting I think is the case for the use of narratives in an international context. Thus unlike Black's (2009) study using discussions among New Yorkers regarding proposals for the reconstruction of World Trade Center site, I hypothesize that narratives might be less likely to be observed where there is greater diversity among participants. This is so because narratives could be viewed as a function of cultural similarity. Thus they would be more likely to be observed among participants of similar backgrounds.

With regard to the use of reasoned arguments in a conversation I also consider a variable which has been used in previous research: the existence of a moderator in the discussion (Stromer-Galley, 2007; Zhang, 2007). Based on her preliminary findings

Stromer-Galley (2007) notes further research is required to determine if different moderator approaches such their attempts to guide a discussion could have impacts on the overall level of deliberation. In a separate study Zhang (2007) hypothesized that more regulation would lead to an increased use of reasoned arguments in online chat conversations but she found the opposite effect. Regulation in that study included among other factors whether or not the moderator was active in a conversation. In order to specifically test the influence of a moderator on the use of reasoned arguments in a conversation, I use a similar variable in this research and hypothesize that the presence of the moderator in the discussion is associated with an increase in the use of reasoned arguments.

Finally I consider two additional variables that are relevant to the international civil society context. First there is the topic of a conversation. Stromer-Galley (2007) suggests that the topic of a discussion can influence the quality of deliberation. That is when the topic at hand is central to the purpose of discussion then departures from this topic can lead to less deliberation. Her research focuses on assessing the level of deliberation overall and not on factors influencing deliberation. Thus she does not test the extent of this relationship. As such I examine whether conversations with different topics can change the level of reasoned arguments observed in such conversations. Each civil society group will be concerned with a public policy problem and will therefore consider several related topics to that problem in their discussions. However, some topics are more central to the mission and purpose of the civil society group and I would argue that these are more likely to consist of reasoned arguments even after controlling for frequency of topic types.

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Similarly the scope of a discussion depends on the nature of the civil society group. In this case I am interested in international groups, thus the scope can be broad and consist of an international or regional focus or it can be specific and center on a city or town. Here again I hypothesize that more reasoned arguments will be observed in conversations that are closer in scope to the purpose of the list. Thus if a group is set up to discuss regional issues then conversations with this scope will have more observations of reasoned arguments.

The following summarizes the hypotheses that have been discussed with regard to research question one.

Research Question 1: What Factors Influence the Use of Reasoned Arguments During Online Deliberations in an International Civil Society Context?

Hypotheses:

1.1 The use of reasoned arguments within a thread increases as the diversity among members in terms of countries increases.

1.2 The use of reasoned arguments within a thread increases as the diversity among members in terms of occupational groups increases.

1.3 The use of narratives within a thread decreases as the diversity among members in terms of countries increases.

1.4 The use of reasoned arguments within a thread will be higher if the moderator is a participant in that thread than if he/she is not.

1.5 The use of reasoned arguments within a thread will be higher if topic of the thread is the main topic of the list.

1.6 The use of reasoned arguments within a thread will be higher if the scope of the thread is about the region as a whole.

In sum, the first research question examines the use of reasoned arguments in an international civil society context. More specifically I look at a new set of factors that could potentially influence reasoned arguments such as diversity of participants, the topic and scope of a conversation and while not new, a further look at the role of moderator. In addition, I explore the use of narratives as an alternative to reasoned arguments. Together, an examination of these factors contributes to our understanding of reasoned arguments as a key dimension of deliberation.

2.10.2 What Patterns of Posting and Replying in an Online Conversation are Associated With Reciprocity?

The second dimension of deliberation that I am concerned with is reciprocity. Several researchers of online deliberation have considered this variable in one way or another (Gastil & Black, 2008; Graham & Witschge, 2003; J. L. Jensen, 2003; Stromer-Galley, 2007). However, there is little work on factors that might influence the degree of reciprocity in a conversation. Alternatively, there is a significant amount of research in the CMC field that looks at how and when people reply to each other in email conversations. These include individual factors such as the perceived expectation of responsiveness between participants (Tyler & Tang, 2003). Other factors include characteristics of the email itself such as the number of recipients that the message was sent to, whether or not information was requested, and whether or not the message was social in nature (Dabbish, Kraut, Fussell, & Kiesler, 2005).

Reciprocity should be also considered in the context of the conversation. Thus I am interested in characteristics of the conversation as a whole that are distinct from

characteristics of the participants or specific emails. To do this I consider two sets of factors. First there are several time-based variables that can be attributed to a conversation. These include the total time-span of the conversation. I hypothesize that the reciprocity of a conversation is associated with the length in time of that conversation as more time implies that participants had more opportunities to respond to each other. While this might imply one way in which time might influence reciprocity, the relationship could function in the opposite direction when considering the average time delay between emails. A lower average implies that participants are sending emails quickly to each other and could therefore be an indicator of an intense discussion among participants. Thus I hypothesize that there is a negative relationship between the average time between emails and reciprocity. Finally I want to consider the "age" of a conversation relative to other conversations in the email list. By age I want to consider how close in time a conversation is to the start of the list. If we take individual level factors such familiarity and perceived responsiveness between participants to be relevant, then these are more likely to develop over time. Thus I hypothesize that the "older" or farther away an email conversation is from the start of the list, the higher the level of reciprocity in that conversation.

Another set of variables I want to look at relate to the notion of equal participation in a discussion which follows from the conditions of deliberation mentioned earlier. Specifically I look at the distribution of emails sent and received by participants in a conversation. As the distribution of emails received by participants becomes more equal then I hypothesize the level of reciprocity in the conversation will increase. This hypothesis follows from the definition of reciprocity – the extent to which participants

respond to each other. Similarly I hypothesize that the level of reciprocity increases as the distribution of emails sent by participants approaches parity in a conversation. In general as more people send emails and receive emails from each other then reciprocity should also increase.

Reciprocity is the extent to which members in a conversation reply to each other's messages. Apart from looking at emails sent and received, another approach is to look at other ways in which participants engage each other in a conversation. This can be examined for example, by looking at the language that participants use to solicit responses or actions from their colleagues. Such language may or may not lead to a reply from other participants but they can be viewed as attempts by participants to engage others. Specifically I look at the use of questions and suggestions by participants in a conversation as methods of engagement. I then consider what conversation level factors such as time and posting structure are relevant to understanding these methods of engagement.

The following summarizes the hypotheses that have been discussed with regard to research question 2.

Research Question 2: What Patterns of Posting and Replying in an Online Conversation are Associated with Reciprocity?

Hypotheses:

2.1 Reciprocity increases with the time-span of a thread.

2.2 Reciprocity increases as the average delay between messages within a thread decreases.

2.3 Reciprocity increases the longer the time the thread is from the start of the list.

2.4 Reciprocity increases as the distribution of emails received by participants in a conversation approaches parity.

2.5 Reciprocity increases as the distribution of emails sent by participants in a conversation approaches parity.

Much of the previous research on online deliberation has examined reciprocity by looking at the extent to which it existed in a conversation. I add to the literature by looking at factors that influence this dimension of deliberation. This includes two sets of factors: time-based and posting structure. The first set addresses the dynamics of time within a conversation while the second set addresses the equality of participation condition that is pertinent to deliberation.

2.10.3 What Strategies Within Conversations Influence the Reflection Process During Online Deliberations?

The research questions on reasoned arguments and reciprocity emphasize mostly structural or external factors to the conversation to help explain deliberation. The final research question examines what elements within the conversations themselves can explain how reflection takes place. As noted above, this aspect of deliberation is in fact rarely examined primarily because it includes an internal process that is difficult to observe (Janssen & Kies, 2005). One proposal by Graham and Witschge (2003) points to evidence of reflection that is observable, namely counterarguments. They argue that the ways in which counter-arguments respond to the reasoned arguments of others are indicators of different levels of reflection. One way to explain the use of different types

of counterarguments could be through the strategies that people use when talking to one another.

For example, (Pomerantz, 1984) has shown that methods of expressing agreements and disagreements are related to the ways people use reasons in a conversation. She argued that reasons often follow disagreements but not agreements because people are more likely to explain actions that are unexpected to others. This strategy of when to use reasons for agreements or disagreements is an example of several that participants can employ in conversations with others. Thus I propose that it will be useful to identify these strategies in an online space and further it will be useful to relate these to reflection, particularly if we treat deliberation as a product of conversation.

The difficulty of observing and analyzing reflection has limited the extent to which previous research on deliberation has explored this dimension. Another contribution of this dissertation then is to apply a previously proposed operationalization of reflection (Graham & Witschge, 2003) to the study of online deliberation. In this way, I test the efficacy of this approach, learn about the level and type of reflection in a given set of conversations and identify conversation strategies that are associated with these types of reflection.

CHAPTER 3

METHODS AND APPROACH

3.1 Content Analysis

The primary method for answering the proposed research questions and hypotheses is content analysis. This follows from previous studies on online deliberation and there are two main advantages for using this method here (Wilhelm, 1999). First, content analysis is useful for the analysis of texts such as dialogue in the context in which they were created. Second, this method does not disturb the natural setting in which the actors created these texts. Content analyses can be used to identify trends, patterns and differences in textual data as well.

It should be noted that there are different forms of content analysis depending on the objectives of the researcher. For example, some researchers might be interested in linguistic analysis and would therefore place particular emphasis on morphology and syntax while focusing on words as units of analysis. Semantic network approaches focus not so much on the literal content of the text but on the relationships between actors that are implied within the text. Alternatively, other researchers are concerned with discourse and rhetorical analyses which involve looking at how participants speak to each other and how particular phenomena are represented (Krippendorff, 2004). While these categories are not exhaustive, if I was to classify this dissertation with a type of content analysis then it would be closest to the latter.

3.1.1   Content Categories

One of the main aims of content analysis is to translate data from a qualitative to quantitative form with the critical point being the use of content categories. I proceed by developing categories which correspond to the main aspects of deliberation such as the use of reasoned arguments as well as other important aspects of a deliberative discussion. These categories are primarily developed from other examples of research on online deliberation that has employed content analysis (see for example Black, 2009; Graham & Witschge, 2003; Polletta, et al., 2009; Rosenberg, 2007; Stromer-Galley, 2007; Zhang, 2007).

Categories include characteristics of the conversation such as expressions or assertions supported by a reason (reasoned arguments), references to external sources (information), and agreements/disagreements. Some new categories that I have added include the use of narratives or personal stories as alternative forms of communication particularly in international cross-cultural settings and the instances where a participant's response incorporates the position of another as an indicator of considering the views of others. In sum I employed twelve different categories as follows:

1. Statements of agreement

2. Statements of disagreement

3. General Opinion/Assertions

4. Facts

5. Reasoned argument - to support opinion/assertion, agreement, suggestion or prior action (facts).

6. Narrative/personal stories

7. Questions for other members

8. Suggestions/Actions

9. Clarification - oneself and others

10. Response incorporates ideas/opinions/assertions of other member(s)

11. Stated external References

12. Other (non-deliberative)

The complete codebook in Appendix I defines these categories and will be useful for subsequent research in this field. I had originally included additional categories but these were eventually dropped because no instances of these categories were observed. One example is flaming messages or the use of insults/expletives for personal attacks on other participants, which was included in other codebooks which were primarily applied to public anonymous chatrooms.

3.1.2   Units of Analysis

Coding was done at three levels. First and foremost was the email thread. Following Hill & Hughes (1997) and others I used the email thread as my main unit of analysis as they can be viewed as a "running transcript of a conversation" (pg. 6). This was used to bound the conversation around a particular topic. I coded the overall discussion and outcome of each thread using some additional categories to those outlined in the codebook above. These included the topic and scope of a conversation and whether or not a decision was made (see section 3.1.4 Approach to coding – Thread level).

Second, I also examined the individual email so as to capture certain aspects of the conversation relative to the whole thread. For example, to gauge the number of nationalities represented on a thread, I summed the nationalities of the authors of individual emails in that thread. Data for individual emails were primarily gathered by

analysis of email headers. Finally, the substance of the conversation was analyzed at the sentence level. Specifically I focused on elliptical sentences to capture the natural use of language by participants. It is here that I applied the categories specified in the codebook (Appendix I). By focusing on the sentence I can examine the basic units of speech that combine to make up a conversation. Furthermore, at this level I am better able to disaggregate the conversation into the various aspects of deliberation that relate to the stated research hypotheses such as use of narrative, reasoned arguments, etc.

3.1.2.1 Identifying Email Threads

There are various ways in which a thread has been defined. For example, threads are often thought of as a sequence of messages with the same subject line. However, this is often viewed as incomplete in identifying threads with thematic coherence, an important consideration in data collection as it is important in this case to analyze deliberations under the same theme.

Alternatively, Barcellini et al. (2005) argue that a quotation based model is more accurate in terms of capturing thematically coherent discussion themes. In this model, individual messages are linked under the same thread if one message quotes another. The use of quotations is important in this case in that it captures the subject's intention to link together different streams of thought thereby creating coherence in the subject's mind. Furthermore this response strategy is typically employed by users in an online space to preserve the context of discussions (Eklundh & MacDonald, 1994)[1].

However, the reconstruction of threads whether based on a quotation model or otherwise is a difficult task to accomplish. Thread reconstruction is an area of

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[1] Cited in Barcellini, et al. (2008)

investigation within the computer-mediated communication (CMC) field. Of importance

here is the email header which contains information that can be used to construct threads.

The precise contents of email headers are specified in Request for Comments (RFCs)

issued by standard-making bodies such as the Internet Engineering Task Force (IETF). In

the relevant RFC, 5322 (IETF, 2009), the originator and destination address fields along

with the subject line make up what we can call the basic header in Table 3.

Table 3 – Basic Email Header

To:
From:
Date:
Subject:

These fields are supplemented by others that are of relevance here including the:

- "Message-ID:" – A unique identifier that the sender's computer assigns to the

  each email

- "In-Reply-To:" – Contains the message ID of the email (the parent) to which the

  current email is responding.

- "References:" – Includes the contents of the references field and the Message ID

  of the parent email, if there is none then it takes the contents of the in-reply-to

  field. In effect it contains the message IDs of all previous emails.

Many email clients (such Microsoft Outlook, Thunderbird, etc.) then take the

references and in-reply-to fields to construct email threads. However, not all email

servers maintain these fields in their headers as they are optional, leading to an

incomplete thread reconstruction process. In fact, Lewis & Knowles (1997) note that

relying on header fields alone is an inaccurate method of thread reconstruction. Several

researchers have therefore proposed algorithms to address this problem. Klimt & Yang (2004, 2005) used a simple procedure by stating that a thread consists of emails with the same subject line (after normalization or the removal of "re:" and similar terms) and where the "To:" and "From:" fields have at least one user in common. They argue that this is sufficient for their purposes (how to classify emails) given that the concept of a thread is subjective.

Both Garg, Deepak, & Varshney (2007) and Jones, Ravid, & Rafaeli (2004) also begin with some data cleaning – normalization of the subject fields. They then use data from the references and in-reply-to fields, where possible, to deduce threads. Finally Jones, et al. (2004) conducted searches to match the text strings in the subject line with other emails 14 days before and after the original email. Yeh & Harnly (2006) building on previous work start with data cleaning (e.g., ensuring all time stamps are in the same time zone), sorting emails according to date and a comparison of quoted texts within emails to develop threads. Alternatively Wang et. al. (2008) propose several variations of an algorithm that does not rely on the email header at all but instead compares the similarity between texts using a graph based technique. Murakoshi et al. (2000) go further and decompose emails into smaller groups of sentences that are then linked together as parts of the same conversation. While they aim to capture cases where an email can cover several threads at once, they acknowledge that their method is exploratory and based on a limited list of keywords to identify links between groups of sentences. Note that these findings have not been incorporated in previous research on deliberation. Whether looking at email based groups or web forums, most researchers just focus on threads based on the same subject heading.

While some of the above methods focus on a quotation based model and come close to capturing a coherent discussion they are not necessarily complete. For example, although not a common occurrence, a member of a list can start a new thread (not quoting any previous emails) with a new (or modified) subject line but one that is still part of the previous discussion. For purposes of this research I define a thread as a sequence of emails that address and directly or indirectly respond to a topic(s) raised by an initial email. By indirect response I mean an email that does not quote the original email or any other emails that quote the original email. This definition goes a little further than the quotation model and I use the following procedure to identify such threads.

1. Subject line normalization – remove all spaces, periods, terms such as "RE:," "FWD:," the name of the list which is often included in all subject lines, all punctuation marks, and other list names.

2. Date normalization – ensure all dates correspond to the same time zone and format.

3. Sort emails according to date.

4. Group emails according to subject line into initial threads

5. Compare the in-reply-to and references fields of emails in the initial thread with those in the wider email corpus and add any matches to the thread

6. Compare text strings in the subject lines of emails in the thread with the subject lines of emails in the corpus that are 1 month before and after the email. Any new emails with similar subject lines are added to the thread. Similar means: contains the original subject line or most of it.

After importing email headers into Microsoft Excel, I use a series of formulas and macros to implement all steps in this procedure. While this is not as sophisticated as some of the methods used in computational linguistics mentioned above, my objective is not to develop a new or employ an algorithm which requires significant programming or similar skills. Regardless of the method, inaccuracies are always possible in any automated approach. Most thread reconstruction techniques are not expected to be 100% accurate in capturing threads all the time. For example, one possibility for error can occur when a message has a similar subject line as others in a thread but addresses a completely different topic. I assume that these and similar examples are rare. Thus I use an accuracy level of 95%. That is, if one takes a random sample of threads after completing the above procedure, and manually check their accuracy, we should expect no more than 5% of those to have incorrectly assigned emails. An additional consideration for the analysis of emails threads is the use of multiple aliases by members of a list. Following Bird et. al. (2006) I first extract all author names from the "From:" fields, group them and then manually look for duplicates. These are then removed to give one email ID to each author.

3.1.3   Sampling

After an initial review of the three email lists to be used, the majority of emails actually do not belong to a thread (i.e., they are one off and do not solicit any reaction from other members). This is in fact normal for most email lists. Often these one off emails are announcements of events, jobs or other related activity. Given the focus on conversations within a list, such emails are not that useful and will be excluded from any sample.

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I therefore use the following two steps in developing a stratified but randomly selected sample:

1. Identify all threads with two or more participants within the list. This could in fact result in a thread with only two emails.

2. From this population I take a stratified random selection of threads that ensures a ninety-five percent confidence level and a five percent confidence interval.

Threads can be identified by several characteristics such as the number of emails they contain. I focus on this characteristic in particular as it is an indicator of the length of a discussion. However the typical distribution of an email corpus is for most threads to have 2 emails. In order to capture discussions with many more emails, a stratified sampling procedure is used rather than simple random sampling.

In stratified random sampling it is important to define strata based on similarities that members of a given stratum will have. In this case I defined strata based on the number of emails in each thread (e.g., two emails, four emails, five emails, etc.). This also maintains a mutually exclusive characteristic across all threads. One alternative formulation could be to define strata in terms of time for example months in a year. This would ensure adequate representation across time. However it would not account for the length of threads (number of emails). Thus if the majority of threads on a list consist of two emails, then we could arrive at a sample of mostly threads with two emails spread across the life of the list. Other definitions for strata are possible but would require a much greater effort in analyzing the population before sampling and might not be worth the effort. Through this procedure I develop representative samples of the emails conversations from selected email lists.

3.1.4 Approach to Coding – Thread level

Several researchers have put forward ideas on how to assign a qualitative score to a deliberative discussion. In studies such as these, deliberation is taken to be a composite of several other dimensions and could be constructed as an index (Steenbergen, Bachtiger, Sporndli, & Steiner, 2003). However such an approach would not be conducive to answering the research questions outlined above. Another study by Beierle (2004) included a scale which assigns a discussion to one of six points where the highest point indicates a high level of deliberation. The problem here is that in moving higher up in the scale there was an assumption that different components of deliberation (e.g., reciprocity or reflection) followed each other sequentially. In practice such a sequence does not necessarily exist.

Instead I develop the key dependent variables for each question by aggregating to the thread level. For example, to determine the total number of reasoned arguments used in a thread, I can sum the number elliptical sentences coded as reasoned arguments in a thread. Similarly with reciprocity I can look at the overall level of replies that are received by participants in a list. In addition to these I also include several other categories for coding in addition to those mentioned above. These are meant to supplement the sentence level categories and answer some of the related hypotheses for each question. These include the topic and scope of a thread, the categories for which are determined by reviewing the conversations in a list. In addition, given that deliberative democracy has an emphasis on decision, I code each thread for whether or not a decision was arrived at (yes/no).

3.1.5 Approach to Coding – Sentence level

Given the use of content categories different researchers in different contexts have applied forms of automated (computer assisted) coding with the aim of creating a faster and more reliable coding process. However, given the time and effort required to develop a new computer coding dictionary (Laver, Benoit, & Garry, 2003) and given the lack existing dictionaries pertinent to deliberation such an approach might not be feasible. In addition, one of the problems with this approach is that the use of a general algorithm to replace human coding can raise the potential of analysis independent of the context in which the conversation takes place (Krippendorff, 2004). For this dissertation, I use a hand-coded method for the various levels of analysis noted above while adhering to the definitions outlined in the content analysis codebook (Appendix I).

Initial randomly selected samples from the population of threads were used in a series of inter-coder reliability tests. For purposes of this research, I employ Krippendorff's alpha as a measure of inter-coder reliability. Percentage agreement and Holsti's method are perhaps easier measures to calculate and use but are more liberal in the sense that they do not accurately capture instances where agreement occurs by chance (Neuendorf, 2002). Krippendorff's alpha does account for chance agreement and is more flexible as it can correct for small sample sizes (Krippendorff, 2004). I take an alpha co-efficient of 0.80 or greater as acceptable.

Three coders[2] in all (including myself) were involved in the inter-coder reliability tests and were trained using the codebook. Sentences in a randomly selected thread were then coded using the categories defined the codebook. In all 207 sentences were coded, however this initial coding exercise was unsatisfactory as most categories received an alpha of less than 0.7 and some even lower. After discussions between the coders the

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[2] These included fellow Phd students.

category definitions were modified and another thread was selected for coding. This thread contained 186 sentences. In the second attempt the reliability tests were improved but still not satisfactory. Thus a second round of discussions on the coding process pointed to further refinement of the category definitions. Thereafter a third thread was randomly selected for coding. This thread contained 206 sentences. The results from the third coding exercise were satisfactory in terms of the reliability scores and the follow-up discussion among coders. Table 4 includes the alpha scores for each content category.

Table 4 – Inter-coder Reliability Test Results

Variable	Alpha
Statements of agreement	0.9499
Statements of disagreement	0.8867
General Opinion/Assertions	0.8722
Facts	0.9234
Reasoned arguments (to support opinion/assertion, agreement, etc.)	0.8683
Narrative/personal stories	0.8550
Questions	0.9068
Suggestions/ Actions	0.8498
Clarification - oneself and others	0.8980
Response incorporates ideas/opinions/assertions of other member(s)	0.8550
Stated References	0.9360
Other (non-deliberative)	0.9388

3.2 Statistical Analysis

The initial analysis of the coded data is based on the comparison of results across different threads (within the same list) and then across lists based on the proposed research hypotheses. Thread differences are based on pertinent characteristics mentioned in the codebook and research hypotheses. These include for example, time-span, length (in terms of emails), number of reasons provided to support arguments, etc. This analysis

is facilitated for example by using inferential statistical methods such as student t-tests, Pearson's chi-square, etc. where appropriate.

3.3 Conversation Analysis

The purpose of conversation analysis (CA) is to identify and analyze the strategies used by participants in a conversation to establish structure and order to their interaction (Goodwin & Heritage, 1990). It is primarily used in verbal conversations and CA researchers have identified various techniques and procedures used by participants. What is distinctive about CA is that it treats conversation as a form of social action. That is, speech implicitly directs and structures interaction between participants and therefore causes them to act in a specified manner in the course of that interaction. For example, if a conversation is conceived of as a sequence of speaking turns between participants, then sometimes what is said in one turn can influence how people structure their responses in subsequent turns.

CA typically involves a detailed analysis of the interaction that takes place in a conversation with an emphasis on discovering the techniques and procedures as they exist in their natural context without the inclusions of any pre-conceived concepts by the researcher. These contexts can range from daily mundane discussions such as a casual encounter on the street to more formal settings such as in a courtroom or job interview. However, following ten Have (2007) I assume a distinction between pure CA with its emphasis on everyday talk and applied CA with a focus on talk in an institutional setting. This research would fall into the latter category by looking at the email discussions of NGOs. Regardless of the type of CA, the goal is to gain an understanding of how people

share meanings, gain mutual understanding and coordinate social action in different social settings.

While the emphasis is on verbal face to face to communication, CA has also been adapted to online communications. For example, Negretti (1999), Neuage (2004) and Golato & Taleghani-Nikazm (2006) used CA to examine the difference in strategies used by participants in various online chat groups. Also, Iimuro (2006) used an email archive as the basis of a CA of how non-native (Japanese) speakers of English make requests of each other. These studies include attempts to explain how the major analytical concepts of CA such turn-taking are translated in the online world by participants. In each case the authors shows the applicability of CA to the online context. Thus while there are few studies that have employed CA to an online environment, the approach is still feasible.

CA is highly qualitative method that is couched in an ethnographic tradition which seeks to discover and understand phenomena from the view of the subject. It is a useful complement to the quantitative aspects of content analysis and the associated statistical techniques used to explore deliberation described above. With CA we can better understand for example, the interaction that takes place between participants through implicit cues and other specific words in the conversation. Specifically, while novel in its application to research on deliberation, we can use CA to identify the strategies used by participants in their interactions with each other in selected email fora and then examine what implications such strategies have for reflection as a key component of deliberation.

3.4 Interviews

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The main shortcoming of content and conversation analysis is that we are not able to completely understand the motives and impressions that participants themselves have of the dialogue. Thus another method employed was interviews. Interviews by themselves would force participants to create new texts outside of the context of the deliberative space and so I used it as a compliment to the above analyses.

Specifically I interviewed participants of the sampled discussions. A list of questions is outlined in Appendix II. In initially aimed to interview (via telephone) at least 10 users from each of the three lists. They were selected to represent different types of user patterns that emerge from the foregoing analysis such as those who are very active, lurkers or moderators. Also, some users were selected based on their participation in unique threads. Note that names of interviewees will not be published to adhere to IRB rules.

3.5 Advantages and Limitations of the Methods Used

Content analysis allows me to analyze deliberation among a given set of persons while preserving the context in which those discussions originally took place. Thus one of the main advantages of using this method is that I am able to use data that captures the act of deliberation rather than relying on a participant's recollection of what was said. However, content analysis is always challenging in that the categories are designed by the analyst and not the participant themselves. This implies that the analyst can impose predetermined meanings onto a conversation. This is a valid problem and one way to mitigate this is to develop categories that approximate the original meaning of a sentence. For example, a sentence is coded as a statement of agreement where terms such as "I

agree…" are located. This applies to some categories but not all; particularly those that are more complex such as incorporating the positions of others into one's arguments (see codebook). As a result, I also attempt to provide examples of conversations to establish context where possible rather than only employing quantitative analysis of the data derived from coding.

Interviews provide a useful compliment to content analysis because the researcher is able to learn about the perceptions of the participant about the deliberation process. Interviews by themselves would make it difficult for the researcher to analyze the original context in which a given discussion took place. Interviews are also seldom used in other online deliberation studies because for example, the discussion might include anonymous participants (e.g., from online chat rooms).

Finally I use another qualitative approach, conversation analysis. CA as with content analysis also relies on actual transcripts (text) of a conversation but tries to identify strategies that participants employ during their dialogue rather than relying on a set of pre-determined categories. At the same time it goes beyond interview data because it examines the implicit conversation strategies that participants use in their dialogue with each other, which would be difficult for them to discuss or recall. Conversation analysis is indeed novel in its application to deliberation research. This stems in part from the fact that research about deliberation, online or otherwise, is located in the political science and CMC disciplines which are usually more quantitative in their methods. Another contribution of this research then is to show the potential for CA as a method for understanding deliberation.

Together this research employs a mixed-methods approach to the analysis of data. Both the use of interviews and CA provide useful complements to content analysis but emphasize a more qualitative approach to research. One apparent difficulty lies in combining quantitative and qualitative methods. However, my approach is to use both types of analysis to answer the same question or hypothesis. This provides different data and analyses to support specific conclusions. Also, my goal is understand how deliberation takes places in the selected emails lists. These methods each have specific advantages, as noted above, which if used alone would not allow me to answer all the stated research questions.

CHAPTER 4

THE CASE OF THE CARIBBEAN

4.1 Background

The two main characteristics of interest for spaces for online deliberation

mentioned thus far are international and the non-governmental group (NGO)[3]. In that

sense I use examples of NGOs focused on the Caribbean as examples of these

characteristics and for purposes of this research. Defining the Caribbean is in fact an

exercise complicated by overlapping notions of identity, politics and culture (Girvan,

2001) and has preoccupied much of the political science literature and many a politician

in the region. In this dissertation I emphasize a geographic definition rather than a social

or historical one. Thus the region here is not necessarily limited to the island states of the

English speaking Caribbean. Specifically I focus on countries in the Caribbean basin.

This definition instead leads to a large group of countries in the Caribbean Sea bounded

by and including countries in South, Central and North America. One major political

grouping that follows this wide definition is the Association of Caribbean States (ACS)[4].

Although I am not specifically concerned with the ACS, its membership covers the

definition of the Caribbean that I am interested in. Thus for illustration Table 5 lists these

countries and summarizes some recent socio-economic indicators for this group.

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[3] I use the term NGO and civil society group interchangeably.
[4] http://www.acs-aec.org

Table 5 – Recent socio-economic indicators for the Association of Caribbean States[5]

Country	Population (millions) 2008	GDP per capita (US$, 2007)	Internet users per 100 inhabitants
Antigua and Barbuda	0.09	13,346	75.03
Bahamas	0.34	21,684	31.54
Barbados	0.26	13,393	73.67
Belize	0.30	4,336	11.31
Colombia	45.01	4,684	38.50
Costa Rica	4.52	5,891	32.31
Cuba	11.20	1,684	12.94
Dominica	0.07	5,011	41.16
Dominican Republic	9.95	4,179	21.58
El Salvador	6.13	3,336	10.60
Grenada	0.10	5,891	23.18
Guatemala	13.69	2,548	14.32
Guyana	0.76	1,407	26.85
Haiti	9.88	641	10.13
Honduras	7.32	1,731	13.09
Jamaica	2.71	4,565	56.88
Mexico	108.56	9,516	21.71
Nicaragua	5.67	1,017	3.26
Panama	3.40	5,904	27.49
St. Kitts and Nevis	0.05	10,351	31.33
St. Lucia	0.17	5,693	58.68
St. Vincent and the Grenadines	0.11	5,012	60.49
Suriname	0.52	4,733	9.71
Trinidad and Tobago	1.33	16,269	17.02
Venezuela	28.12	8,247	25.49

Source : (ITU, 2009)

Even with a large and diverse set of countries there are certain common socio-economic characteristics of many countries in this group worth mentioning. For example, many countries in the region are hampered by limited democratic experiences. This is true for many Spanish speaking countries in the region, both island states and those in Central America. One sub-group that has fared better is the countries in the English speaking Caribbean. They have managed to maintain their relatively young democracies

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[5] The ACS currently has 25 members. Although Florida has important cultural, resource and trade links with the region, the US is not a member because of Cuba's participation.

since independence (with the notable exception of Grenada). Some observers suggest that the institutions of governance inherited from the British colonial period have become entrenched and supportive of democracy (Griffin, 1993). Others argue that this is also due to the two inter-related variables of small size and a political culture of patronage politics (or an informal system for the redistribution of economic resources to the poor and elites) (Duncan & Woods, 2007). For example, voter turnout has been positively associated with the system of patronage politics in many Caribbean island states (Schraufnagel & Sgnouraki, 2006).

However, while acknowledging the existence and stability of democracy over time in these island states, most observers of Caribbean politics are concerned with the depth of this democratic experience. Thus Hinds (2008) notes that the wider inclusion of citizens in governance has been limited. In fact, among those countries following a Westminster model of government, Munroe (2002) argues that a system of patronage politics and marginalization of people from the democratic process is partly the result of this "winner takes all" electoral. This system also tends to place a disproportionate amount of power in the hands of the ruling party (Payne, 1993). Thus it could be argued that the same political system that helps maintain democratic stability also undermines democratic inclusion. Thus Acosta (2006) argues that the existing structural and economic inequalities in Jamaica, for example, have helped to shape a policy-making process that is centralized and often excludes marginalized groups. In reaction to this, successive governments have articulated policy goals which sought to include more people in the decision-making process particularly at the local level. This included local governments and civil society groups. However, recent local government reforms aimed

at increasing such participation have been limited. This resulted from a combination of a lack of political will, a lack of a national consensus of reforms and reforms that sometimes appeared external in origin (from foreign development agencies) (Schoburgh, 2007).

In addition, several underlying problems persist across all Caribbean countries such as political accountability, responsiveness of governments and public participation in the political process (Erikson & Minson, 2005). Another problem is that of corruption which is often related to the regional problem of narcotics trafficking and can debilitate the rule of law (Maingot, 1993).

The issue of regional governance is also important to the Caribbean. Given the efficacy of regional economic blocs, national security and other concerns, there have been several attempts at promoting regional political and economic groupings at various levels. One major regional institution that consists of mostly the English speaking islands states of the Caribbean is the Caribbean Community (CARICOM). This is similar in structure to the European Union but with much less integration and power over its members. The other larger group is the ACS mentioned earlier which has also faced many challenges since its establishment (Byron, 1998). Thus some observers see such efforts at regional efforts at regional governance as incomplete (Pastor & Fletcher, 1993; West Indies Commission, 1993). This is especially relevant now given the common challenges of small economies having to deal with the vicissitudes of globalization, a regional narcotics problem and large burdens of government debt. Nevertheless very little traction obtains with regard to integration at the state level. This could stem from an

emphasis on national over regional by Caribbean governments since independence (Linton, 1993).

In parallel, there are several non-governmental organizations that have been able to develop at the regional level because of common interests and objectives. In fact, it has been argued that many of these NGOs have been able to contribute to the integration process in tandem with formal structures such as CARICOM (K. H. Harrison, 2008). Non-governmental organizations cannot be the only means to addressing regional issues. However, it could be that the path to improving regional governance involves greater participation and deliberation among the peoples of the Caribbean. While formal mechanisms for region-wide participation might not yet exist, NGOs could provide an important alternative here as a more direct link to the population (Nanz & Steffek, 2005).

As Harrison (2008) notes there is in fact a long tradition of regional level NGOs in the Caribbean. This can be traced back to the start of the 20th century and really developed from the 1970's onwards. The range of issues covered are also broad and include occupational groups such as teachers and farmers, women's rights, indigenous people, NGO umbrella groups, churches and environmental groups. The advent of the Internet has also increased the efficacy of such regional groups through improved communication and coordination (Madon, 1999). Furthermore, in cases where the purpose of the civic group is to encourage debate around specific issues, the Internet provides the online space to do so.

While several scholars have looked that the inter-related problems of democracy and development in the Caribbean (see for example the edited volumes by Domínguez, Pastor, & Worrell, 1993; Edie, 1994; and the study on Jamaica by Stone, 1986), there is

little research on the role of the Internet in this dynamic. This is no doubt because Internet use is a more recent phenomenon in the region. This is one of the gaps that this dissertation aims to address. Similarly, the literature on the general use of the Internet in the Caribbean is also limited. While much of it looks at the problem of a digital divide there little on how it is being used. However, current trends indicate that most Caribbean states are not too far from the European average penetration rate of 41.5% (ITU, 2007). Internet penetration (users per 100 persons) rates vary from a high of 74% in Barbados, to 57% in Jamaica and 10% in Haiti (Table 5). Furthermore, in a comparative study of online participation in Malaysia and Singapore (George, 2005), the author noted that having low penetration rates, as is the case in some Caribbean countries, does not lessen the importance of the Internet in democratic engagement.

As a goal of this research is to examine structural factors that influence deliberation having Caribbean focused NGOs as examples of online deliberation can be useful for other geographic areas that are linked regionally with a diverse set of countries. This could include regional NGOs from areas such as Europe or Western Africa with similar broad membership. Furthermore, many of the studies on deliberation and online deliberation in particular have been done within the same democratic environment (i.e., the United States) and it would be interesting to examine online deliberation in different democratic contexts.

4.2 Data Sources – Three Email Groups for Study

As mentioned earlier the online fora that I am interested in are not just broad email lists or chat spaces – but represent spaces for discussion among members of

specific communities – in this case NGOs focused on public policy issues in the Caribbean. To identify such groups I did a wide search looking at popular sites such as yahoo or google groups and academic listservs. I also contacted persons on a variety of lists in the Caribbean for assistance. As a result I was able to identify twenty-three different groups covering a range of issues such as sustainably tourism management, animal welfare, youth issues, the environment, gender issues, and religious and cultural groups.

Of these my goal was to identify three groups for study as this would provide for a useful comparison across policy arenas and still be feasible for analysis. The selection of the three groups was based on the following criteria: (1) proportion of emails that fit into threads as defined earlier and (2) accessibility to the email archives. The first criterion ensures that I can distinguish between email lists that serve primarily an announcement function as opposed to those that provide a discussion space. Although the list might have a stated purpose, in practice this might be different. Thus I calculated the percentage of emails that fit into threads that were crudely assembled though similar subject lines. This was not the most accurate method as discussed earlier but was sufficient for this purpose.

The second criterion concerned the more practical issue of access. Of the twenty-three groups thirteen were privately archived and nine were public. For the privately archived groups, I contacted the list and stated my research intention and objectives as per IRB requirements. This was followed by clarifying any concerns the members might have. I was then given access in about half these cases. I selected the three groups below based on these considerations – access and an emphasis on discussion. Each group covers

a different policy area and has their own unique rules and features which will aid comparison across different forum structures in the analysis.

4.2.1   Caribbean ICT Virtual Community (CIVIC)

The objective of the Caribbean ICT Virtual Community (CIVIC) is to provide a space for sharing information and for the discussion of issues and policies related to ICTs/telecoms in the Caribbean. It also aims articulate and support a regional Caribbean ICT strategy at both Caribbean (e.g., CARICOM) and global levels (e.g., WSIS). The list was started by a group of NGO representatives, business persons and government officials at a meeting in Barbados in 2002. The intent was to create this space as no similar list existed particularly for the English speaking Caribbean, although the list started by operating in three languages. Automatic translations of all posts were available in English, Spanish and French on the list's website however this function is no longer available.

Unlike the other two groups, CIVIC does not have a concomitant NGO organization nor is it a legally registered entity. Thus it has no separate group where further decision-making or deliberation is done. In lieu of this the group has a defined structure and organizational charter outlining the rules of participation (http://www.civicaribbean.org/en/about/governance). In fact the structure of the group is a source of much discussion over the years. There are several channels (or smaller mailing lists) that address specific themes for interested members. These include e-government, gender and ICTs, Internet governance, linguistic diversity, regulation, etc.

At the outset, the group acquired support from the Institute for the Connectivity of the Americas to setup the listserv. This is hosted by dgroups.org an initiative of several

multilateral and other development agencies. They received subsequent funding to set up their own website (http://www.civicaribbean.org/)

4.2.2   Gulf and Caribbean Fisheries Institute Network (GCFINet)

The Gulf and Caribbean Fisheries Institute (GCFI) is a registered NGO whose stated mission is to promote information sharing on marine resource management issues in the Caribbean and Gulf of Mexico. The GCFINet list is an online tool to help realize the organization's main goal. It originally focused on communication about GCFI organizational issues and then grew to include discussions on marine and fisheries issues with persons throughout the region. The listserv is hosted by the GCFI (http://www.gcfi.org/).

The GCFI was established in 1947 in Florida and was originally associated with the University of Miami. In fact many of the members on the list are from the US and countries outside the insular Caribbean. As the focus of the list is on the shared natural resources of the Caribbean Sea, the scope and therefore range of interested persons is larger than the two other groups included here. That said most of the discussions focus on the Caribbean.

As an NGO, the GCFI has a Board of Directors which serves as the main decision-making body. The discussions of the Board are not part of the GCFINet list as there is a separate list for that purpose. One of the main functions of the board is to organize the GCFI's annual meeting. This provides an opportunity for face to face discussions among its members and usually takes place in the Caribbean. It includes academic presentations as well as the sharing of information between fishermen, activists and scientists. In addition, the GCFI also manages small grants and scholarships. For

example, one program supports exchange visits between communities in the Caribbean to share best practices in terms of sustainable resource management. This program is funded by United Nations Environment Program – Caribbean Environment Program.

4.2.3   Supporting Caribbean Vulnerable Populations (SCVP)

This online group is a discussion space for NGOs working primarily on HIV/AIDS issues in the Caribbean. This includes groups working on the treatment as well as advocacy of related health issues. One of its aims is to ensure a Caribbean NGO presence in regional and international discussion on HIV/AIDS issues. The SCVP list was started in 2005 to enable communication between members of the Caribbean Vulnerable Communities (CVC) organization (http://www.cvccoalition.org/).

The CVC in turn was established after a meeting of Caribbean NGO representatives in Jamaica in 2004. Participants in that initial meeting were concerned about the lack of support given to the wide range of groups suffering from HIV/AIDS in the Caribbean. These vulnerable communities include groups whose social exclusion is compounded with their association with AIDS and include prison populations, homosexuals, drug addicts, the homeless and the poor. One overarching themes of the CVC's work is promotion of human rights across these different groups.

The CVC is a registered NGO based in Jamaica and has a board of directors that serves as the main decision-making body for the wider group. The board has a separate email list although discussions sometimes spill over onto the general SCVP list. Several offshoot lists have also been created that focus on discussion of specific issues such as human rights. The SCVP list is archived as a yahoo group.

4.3 Basic List Characteristics

Table 6 below provides a brief overview of some of the key characteristics of the three email groups. The groups vary in terms of their age with the SCVP list being the most recent. Accordingly the size (number of emails) of each group also varies. However age is not the only characteristic determining the numbers of total emails, as some groups are more active than others as indicated by the percentage of emails that fall into threads. Thus for example, although the GCFI list is the oldest it has the largest proportion of one-off emails (i.e., emails that do not fall into a thread).

The membership count also differs across each group adding variation to the overall analysis. This is based the number of persons who have made at least one post to their list. That is the figure does not necessarily include lurkers (or those who have made no posts to the list). However, for CIVIC this represents a good approximation of the total number of persons subscribed to the list (both posters and lurkers) as each new member is required to post an introduction. In the case of the GCFI however persons are not required to post introductions. Thus the first figure in that cell represents the membership in terms of the persons making at least one post and the second is an estimate of the total subscriber base from the moderator. For the SCVP list, the total subscriber figure is available on yahoogroups. In all three cases, the numbers reported in Table 6 represent membership over time and may not represent the present subscriber base as people leave and join these lists regularly.

Of note is the total membership of the SCVP group. This is in fact much smaller than the other two and is partly explained by the nature of the community focusing on HIV/AIDS issues in the Caribbean. That is, unlike the other two groups, the SCVP list

primarily consists of representatives of NGOs, and from countries in the Caribbean (see section 4.6 below).

Table 6 – Basic Characteristics for Selected Email Groups

Group	Active since	Total Emails	% of emails in threads	Members (based on posts)	Archive
CIVIC	2002	9713	67	441	Private
GCFI	1999	1587	35	405/900	Public
SCVP	2005	1396	49	39	Public

Two of the three groups publicly archive their emails, while CIVIC keeps a private archive. The main reason given for this is that the membership includes people in government and others who would prefer to have their opinions kept private. This is in fact a point of contention among some members of that group and will be discussed later on. Appropriate permissions were from members of CIVIC to access the archive.

4.4 Sampling Results

Following the stratified sampling method outlined in the Chapter Three, the population of threads for each list was identified by including all threads from the start of the list to August 2009. Note that I did not use a specific end date for each list as I needed to sample whole threads. I then divided each population into strata based on number of emails. A random sample was taken from each stratum while maintaining the appropriate sampling fraction. Table 35 (Appendix III) outlines the results from that exercise. These distributions are quite similar to analyses of other email corpora (see for example Klimt & Yang (2004) where most threads consist of only two emails.

Table 7 notes the sample fraction from each list and the total number of posting members covered in the sample. Given that few people do most of the posting on the lists (section 4.8 below) the sample fractions do not necessarily correspond with the proportions of members in the sample to members in the population.

Table 7 – Summary of Sampling Results for all Three Lists

Group	Total Threads (population)	Total Threads (sample)	Total emails (sample)	Sample fraction (threads)	Members: Sample /Population
CIVIC	1096	285	1758	26%	165/441
GCFI	129	97	421	75%	199/900
SCVP	213	137	435	64%	28/39

4.5 Deliberation Coding Results

Tables 8 to 10 below provide a summary of the coding results for the main deliberations categories from each list. Descriptive statistics for other variables calculated from message header data are also given. The content analysis variables correspond to the content analysis categories from the codebook described in the methods section (Chapter Three). Facts, opinions and "other" have the highest means with across all three lists. In fact for most threads these three categories combined would account for most of the sentences coded. Again this pattern is observable for all three lists.

The next set of variables that are important in terms of the size of their means are "suggestions" and "questions," both of which refer to levels of engagement between members. The mean use of "questions" appears to be much lower on SCVP than the other two lists however. Another relevant category is "references" which has a high mean relative to other categories on all lists and in particular on the GCFI list. This could stem

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from emphasis on scientific discussions on the GCFI list (see Table 12 below). Finally all

three lists have high means for the "other" category. The mean number of "other"

sentences for each list is about 20% of the average thread size (total units) per list.

Table 8 – Descriptive Statistics for key Deliberation Variables for CIVIC

CIVIC Content Analysis Variables					
Variable	Obs	Mean	Std. Dev.	Min	Max
agreements	285	0.87	2.57	0	26
clarifications	285	0.29	0.82	0	6
disagreements	285	0.22	0.87	0	11
facts	285	10.09	15.54	0	107
opinions	285	9.83	25.10	0	215
narrative	285	0.54	2.39	0	28
other	285	8.34	10.95	0	82
questions	285	1.79	2.50	0	16
Reasoned arguments	285	2.63	6.93	0	75
response-incorporates	285	0.26	0.76	0	5
references	285	1.85	2.33	0	18
suggestions	285	2.58	5.03	0	46
total units (sentences)	285	39.39	66.02	2	487
Unanswered questions	285	0.47	0.96	0	8
Decision	285	0.070	0.25	0	1
CIVIC Header Variables					
Total emails	285	6.16	7.15	2	48
Number of participants	285	4.03	3.04	2	25
total moderator emails	285	0.43	0.71	0	5
total-emails	285	0.96	1.24	0	11
Total countries	285	3.22	1.86	1	13
Time-span (hours)	285	155.50	358.27	0.45	2899.66
avg. time between emails (hours)	285	27.84	65.32	0.225	546.51
age of thread (months)	285	44.01	23.017	0	80
Reciprocity	285	0.12	0.18	0	0.667

Table 9 – Descriptive Statistics for key Deliberation Variables for GCFI

GCFI Content Analysis Variables					
Variable	Obs	Mean	Std. Dev.	Min	Max
Agreements	97	0.27	0.81	0	5
Clarifications	97	0.09	0.29	0	1
Disagreements	97	0.11	0.47	0	4
Facts	97	6.37	6.32	0	26
Opinions	97	3.44	6.29	0	41
Narrative	97	0.11	0.40	0	2
Other	97	4.70	4.92	0	27
Questions	97	0.94	1.11	0	5
Reasoned arguments	97	1.18	2.59	0	12
response-incorporates	97	0.06	0.28	0	2
References	97	2.01	1.99	0	11
Suggestions	97	1.69	1.85	0	10
total units (sentences)	97	21.04	20.44	2	93
Unanswered questions	97	0.20	0.53	0	2
Decision	97	0	0	0	0
GCFI Header Variables					
Total emails	97	4.34	3.53	2	20
Number of participants	97	3.96	3.04	2	20
total moderator emails	97	0.09	0.38	0	3
total-emails	97	1.18	1.19	0	6
Total countries	97	2.85	1.76	1	9
Time-span (hours)	97	126.99	294.74	0.06	1732
avg. time between emails (hours)	97	34.50	96.51	0.03	714.62
age of thread (months)	97	64.60	45.01	0	117
Reciprocity	97	0.024	0.08	0	0.5

Table 10 – Descriptive Statistics for Key Deliberation Variables for SCVP

SCVP Content Analysis Variables					
Variable	Obs	Mean	Std. Dev.	Min	Max
Agreements	137	0.15	0.48	0	3
Clarifications	137	0.08	0.34	0	2
Disagreements	137	0.02	0.19	0	2
Facts	137	2.48	4.64	0	39
Opinions	137	2.91	3.90	0	21
Narrative	137	0.11	0.45	0	3
Other	137	3.62	3.03	0	16
Questions	137	0.53	1.02	0	5
Reasoned arguments	137	0.67	1.34	0	8
response-incorporates	137	0.07	0.28	0	2
References	137	1.16	0.86	0	7
Suggestions	137	1.12	2.29	0	16
total units (sentences)	137	13.05	14.67	2	102
Unanswered questions	137	0.08	0.33	0	2
Decision	137	0.05	0.23	0	1
SCVP Header Variables					
Total emails	137	3.20	2.19	2	15
Number of participants	137	2.40	0.86	2	7
total moderator emails	137	1.13	0.99	0	5
total-emails	137	0.52	0.52	0	2
Total countries	137	2.30	0.82	1	7
Time-span (hours)	137	91.28	286.10	0.1	2227.25
avg. time between emails (hours)	137	26.92	76.07	0.05	685.39
age of thread (months)	137	23.10	14.76	0	55
Reciprocity	137	0.14	0.22	0	0.8

Overall, we can see that the majority of threads exhibit low counts of different aspects of deliberation. This includes the use of reasoned arguments and narratives, although the use of narratives is more seldom. In fact, the mean number of reasoned arguments per thread is around 1 for the GCFI list and less than 1 for SCVP. In CIVIC this mean is 2.63. The mean number of narratives per thread is also higher in CIVIC than the other two lists. However, it is important to note that the mean number of coded sentences per thread is also considerable higher for CIVIC than GCFI which in turn is

higher than the SCVP list. From the header level variables, the mean number of emails and total participants per thread follows this order as well.

The main variable of interest at the header level is reciprocity. As with reasoned arguments and narratives the means are low. However in this case, the mean proportions of emails that are reciprocated in a thread are highest for the SCVP list (14%). In general this would indicate that across all three lists most emails are not reciprocated. Thus the preliminary results from coding indicate that there are low levels of using reasoned arguments and reciprocity across all three lists.

4.6 Who are the Members

As mentioned earlier I am interested in diversity in terms of three variables – country, occupation and gender. Also it is important to determine diversity based on information available to participants. Country data was therefore obtained by looking at information from emails that identified the location of a member. This included email addresses and signatures. In the case of CIVIC, members stated their current occupation and location. Therefore "country" in this case does not necessarily refer to nationality. Instead it refers to the location of the institution where a member is based. For the majority of cases in the CIVIC and SCVP lists country does refer to nationality. However, on the GCFI list, there were many persons from the Caribbean and Central America based in the USA. In such cases, additional data of their country of origin was not available.

Table 35 (Appendix III) details membership by country among the sampled threads from each list. The total numbers of countries represented in the samples are 33,

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38 and 28 for the CIVIC, GCFI and SCVP lists respectively. For CIVIC, the most

represented countries are Barbados, Jamaica, USA and Haiti in that order. Similarly for

SCVP these are Jamaica, Guyana, Canada and the Dominican Republic. Finally for the

GCFI these are the USA, Mexico, Puerto Rico and Belize. Note that the GCFI sample is

most skewed in terms of country representation with the USA accounting for 49% of

membership. The majority of these persons are based in Florida as this is a convenient

base for those working on marine and fisheries issues in the Caribbean.

In looking at occupation I identified five broad categories that were common

across all the lists. Table 11 summarizes the membership across the three lists based on

these categories. These were coded in terms of the organization that individual represents

or the main activity that were engaged in. This was gleaned typically from contact

information in signatures of from self-introductions that were sometimes offered (or

required on CIVIC). I do not assume that persons cannot belong to more than one

category however I do assume that the main professional activity of a member can be

represented by one of these categories. The business category refers to private firms and

consultants, although across all three lists this mostly meant the latter. Donors here refer

to international agencies that often have local or regional offices in the Caribbean.

The NGO category is the largest proportionally in the SCVP list. This follows

from its function as a coalition of NGOs in the region. This category is also the largest in

CIVIC which similarly was formed by representatives of several NGOs. However the

next largest category is business which includes many private firms involved in the

IT/Telecoms sector and consultants. Proportionally CIVIC has the largest number of

members in this category. The largest category in GCFI is academic and this reflects the fact that this list was started by several scientists.

Table 11 – Occupational Groups by List

Occupation category	Number of members - CIVIC	Number of members - GCFI	Number of members - SCVP
Business	34	19	2
NGO	57	51	16
Government	27	54	1
Academic	30	71	7
Donor	17	4	2
TOTAL	165	199	28

Table 12 – Gender Breakdown by List

Gender	Number of members - CIVIC	Number of members - GCFI	Number of members - SCVP
Male	120	141	20
Female	45	58	8
Total	165	199	28

Finally in terms of gender, Table 12 summarizes membership in that context. Gender was determined by participant names, which were for the vast majority in English, with some Spanish and a few in French. I make the assumption that names are a fairly accurate indication of gender. Interestingly enough, men account for approximately 71% of membership across all three lists. This could be a function of several factors including men being more involved in IT use and development, business ownership, academics, government, etc. On the SCVP list, one might have expected a different distribution given the predominance of NGO representatives, however even here greater

male membership could be a function of men taking on more leadership roles in the Caribbean.

4.7 What do Participants Talk About

In addition to covering three different policy arenas in the Caribbean, the lists also provide participants with the space to discuss a range of related topics. The count of threads by topic for each list is presented in Tables 13 to 15. The definitions of most categories are self-explanatory with a few exceptions. In all cases the topics should be interpreted with regard to the main theme of the list. For example, "commercial activity" in CIVIC refers to ICT businesses and investments while on GCFI this refers to activities such as fishing and tourism. "Organization" refers to threads that discuss operational and structural issues about the organization itself. This would include issues such as who should represent the organization at a given meeting, an internal survey of members, voting on specific issues, etc. In CIVIC, "ICT application areas" refers to ways in which ICTs can be applied to various socio-economic sectors such as education, health, government, etc. Finally, "Funding opportunities" refers primarily to funding for NGO's through grants and other programs.

The distributions show the unique nature of conversations on each list and appear to follow the characteristics of each list. "Organization" for example is larger proportionally on CIVIC than the other two lists given that CIVIC does not have a parallel organizational structure with which to discuss these issues. Alternatively more threads discuss academic and research issues on GCFI than on SCVP and CIVIC

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following the membership make-up of that list. Similarly both CIVIC and SCVP have

threads discussing funding opportunities for NGOs.

Table 13 – Threads by Topic – CIVIC

Topic	Freq.	Percent
Academic	18	6.32
Commercial activity/Investments	15	5.26
Conference/events	65	22.81
ICT Application Areas	70	24.56
Organization	57	20
Regulation/Legal	60	21.05
Total	285	100

Table 14 – Threads by Topic – GCFI

Topic	Freq.	Percent
Commercial activity	10	10.31
Conservation issues	24	24.74
Academic	48	49.48
Organization	8	8.25
Regulation/Legal	7	7.22
Total	97	100

Table 15 – Threads by Topic – SCVP

Topic	Freq.	Percent
Conference/Events	19	13.87
Funding opportunities	21	15.33
HIV/AIDS	21	15.33
Human Rights	35	25.55
Narcotics	13	9.49
Organization	14	10.22
Academic	14	10.22
Total	137	100

Another way of looking at threads is in terms of the scope of their discussions. In

this case similar categories were used across the lists. Of note is the category "Area

within a country." This applies only to the GCFI list as some threads focused on specific

regions, towns and even specific beaches. This was not the case in the other two lists as the smallest level of focus was typically the country. That said the majority of threads on all three lists focus on the entire region. Internal refers to threads that focus on the organization itself in terms of scope. Thus while there is some overlap a thread could be classified as organization under topic and a non-internal category under scope. For example, discussions about who should represent the organization at a regional meeting would be classified as organization (topic) and entire region (scope). Alternatively, a discussion about moderation rules would be classified as organization (topic) and internal (scope).

Table 16 – Distribution of Threads by Scope Across all Three Lists

Scope	CIVIC		GCFI		SCVP	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Area within a country	-	-	13	13.4	-	-
Country	61	21.4	6	6.19	27	19.71
Sub-region	11	3.86	4	4.12	7	5.11
Entire Region	153	53.68	74	76.29	79	57.66
Global	26	9.12	-	-	21	15.33
Internal	34	11.93	-	-	3	2.19
Total	285	100	97	100	137	100

4.8 Posting Patterns

Posting patterns on the lists are presented on two levels for illustration and to give a sense of the structure of the communication on the lists. First we can look at posts across time. Although I did not sample threads based on time, I present the following graph (Figure 1) to show the distribution of the sample threads over the life of each list. Quarters (instead of months) are used in each year for purposes of presentation. Note that the distribution of threads here is not continuous for the GCFI list given that it covers the

longest time-span and the smallest population of threads. Based on the number of threads sampled in each quarter, the lists tend to peak at different periods. This occurs in 2008, 2007 and 2009 for CIVIC, SCVP and GCFI respectively.
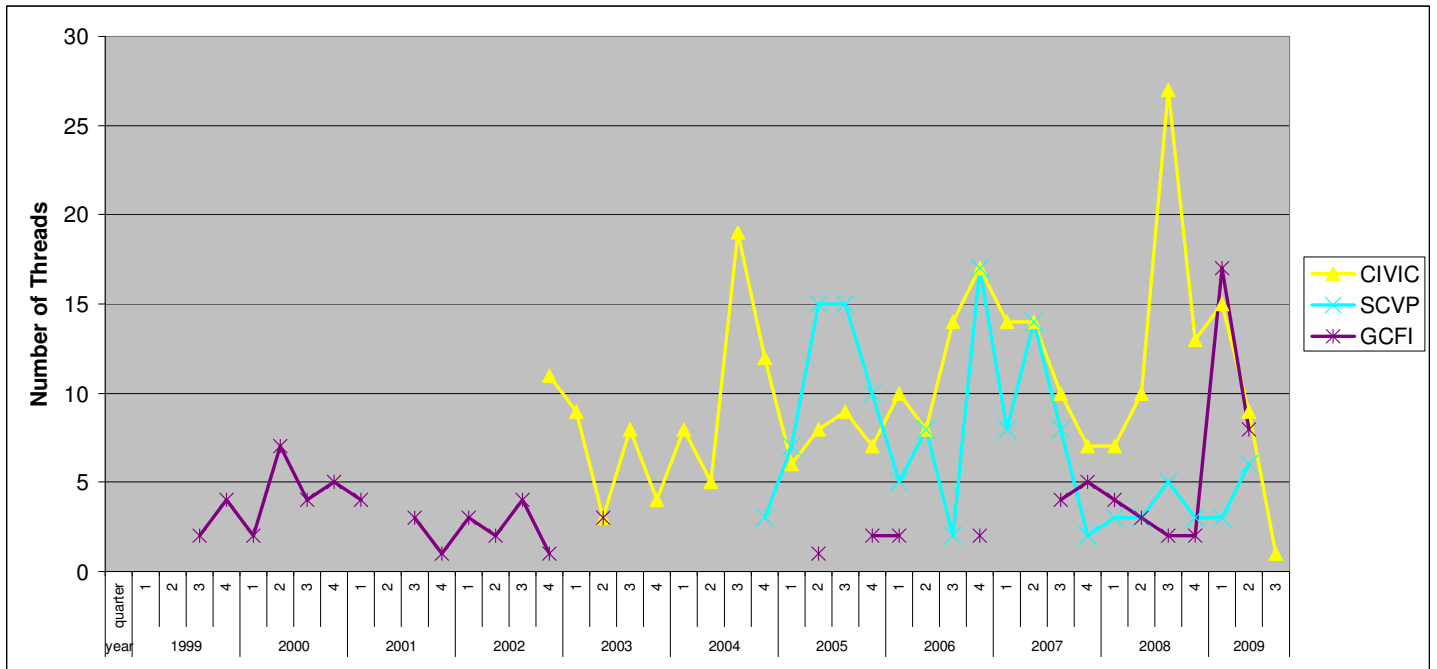
Figure 1 – Spread of Threads Over Time, by List

In addition, I illustrate the number of participants on each list to the number of emails sent (Figure 2) and replies received (Figure 3). These distributions are similar to other lists (see for example (Bird, et al., 2006)) where a few people account for most of the emails sent and replies received. It should be noted that the total number of participants in both figures are not the same, since not everyone who sends a message receives a reply.
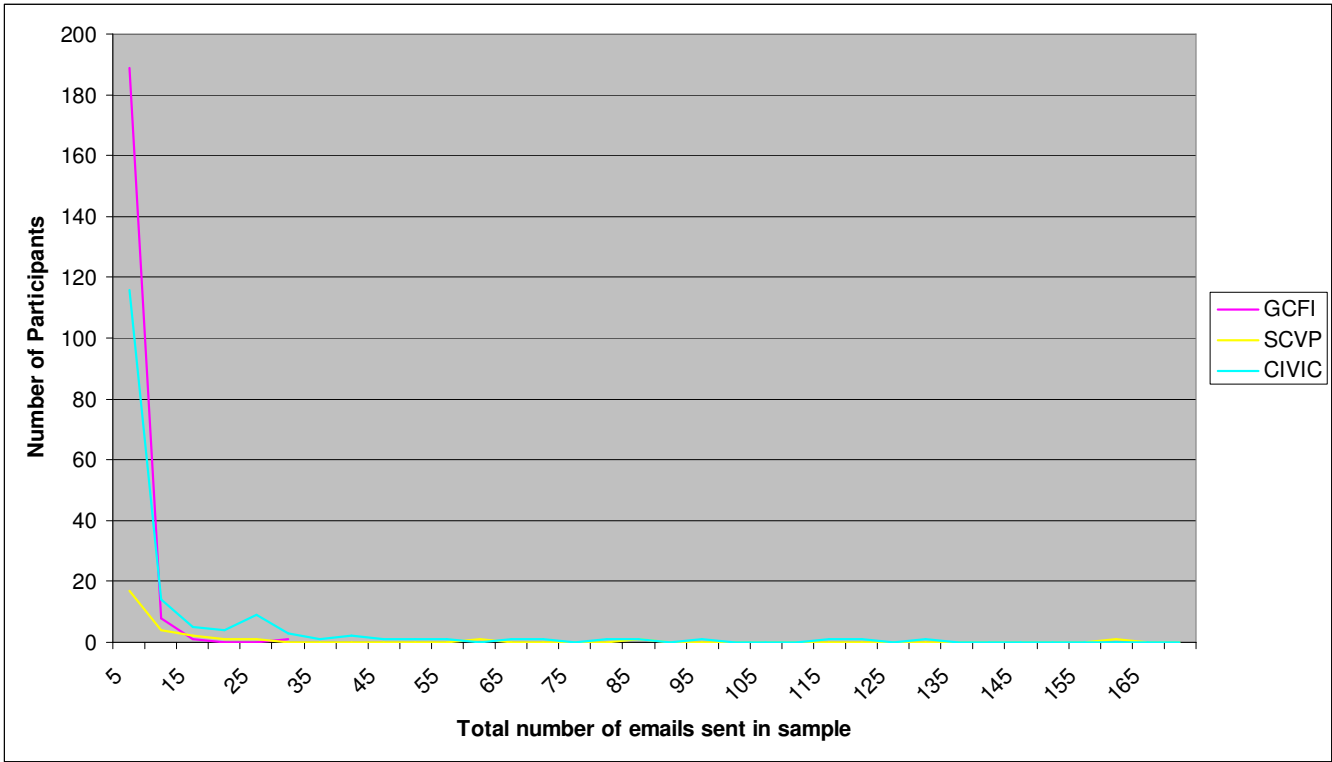
Figure 2 – Comparison of Emails Sent by Number of Participants for all Three Lists
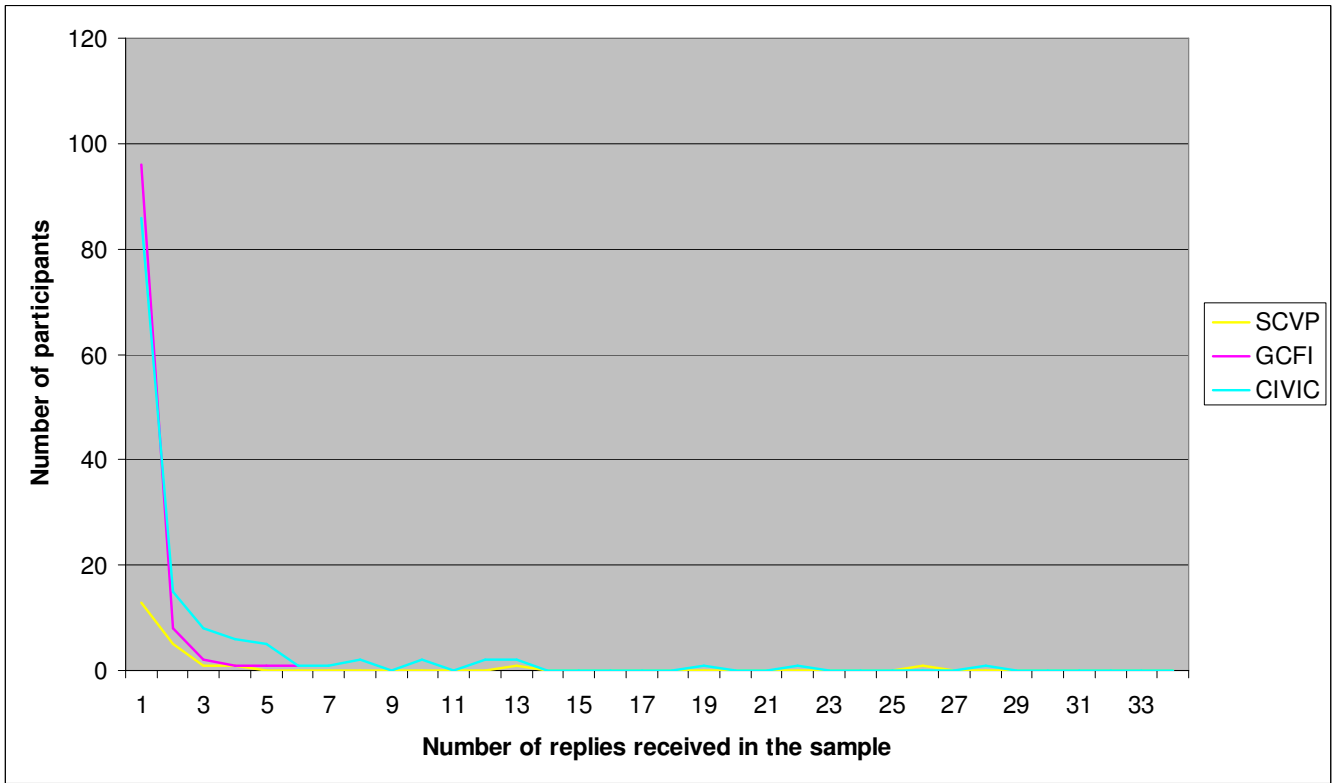
Figure 3 – Comparison of Replies Received by Number of Participants for all Three Lists

4.9 Overview of Interviewees

Finally, I report the number of interviewees completed for each list. Potential interviewees were identified based on posting patterns to the list (including both frequent posters and lurkers), those who were active in different time periods and of course the moderators. Invitations were only sent to those participants who were part of the sample in each list. At least twenty-five invitations were sent out to participants in each list. In some cases, such as CIVIC and GCFI this was larger given the size of the memberships on those lists. In all eighty-four invitations were sent out and twenty-right responses were received. Of these twenty-three accepted the invitation for an interview.

In all twenty interviews were completed out of the proposed target of thirty. These were all completed via telephone (and two using Skype) during a 2 month period. Most interviews ranged from 30 to 45 minutes. Table 17 summarizes the total number of participants interviewed from each list. All the interviewees were based in the Caribbean with the exception of one member from GCFI based in the US.

Table 17 – Total Participants Interviewed From Each List

List	Total Completed Interviews
CIVIC	11
GCFI	6
SCVP	3
TOTAL	20

CHAPTER 5

REASONED ARGUMENTS

5.1 The Use of Reasoned Arguments

Before examining factors that are associated with the use of reasoned arguments, it is instructive to look at examples from the lists to illustrate how reasons are offered in the context of a thread. As noted in the codebook, reasoned arguments can occur in a variety of ways. This includes, for example, supporting calls for action, an assertion or even moral positions. Figure 4 contains text of a conversation (thread #140) from CIVIC where participants employed reasoned arguments (in bold) to support their suggestions. John[6] begins by posting some links to academic papers on ICTs and development in the Caribbean. Jane responds by suggesting that CIVIC could create a repository of such documents. She supports this with two reasoned arguments (lines 22 and 23) – that the ICTD story in the Caribbean needs to be told by Caribbean people and that that this would create a sense that some action is being taken by the group. Finally Jim agrees with Jane using history from the group as a reason to support the suggestion (line 35). In this case, reasons are offered by members to support a particular action by the group.

There are also other aspects of deliberation in evidence here such as agreement, engagement through questions, etc.; these will be discussed later on. In coding, header information is not included and only presented here for completeness. Of note is that reasoned arguments ostensibly account for only a few of all the possible coded sentences in this thread. In general, given that reasons must follow opinion, suggestions, etc., it is

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[6] The names of all participants in this section and throughout the dissertation have been changed.

unlikely that the majority of coded sentences in a thread will be reasoned arguments. In fact, recall that the preliminary results from the coding exercise indicated that the mean count of reasoned arguments per thread was low across all three lists (Tables 8 to 10). This thread also illustrates the fact that reasoned arguments do not only occur in the course of a debate or difference of opinion between members.

Where debates do occur, some interviewees from CIVIC felt that much of the arguments put forward on the list were not supported by reasons. There were a few who did not share this opinion and felt that reasoned arguments were frequently used by members in debates. One member estimated that reasoned arguments were more frequently used in the early years of the CIVIC list. Another member of CIVIC felt that even where opinions were supported by reasons; sometimes participants would take criticisms or disagreements personally which ultimately undermined the use of reasoned arguments.

Line number	Sentence
1	Subject: [icacaribbean] The Digital Divide, Economic Growth and Potential Poverty Reduction in the English Speaking Caribbean
2	From: John
3	Date:
4	To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org>
5	Found on the web
6	The Digital Divide, Economic Growth and Potential Poverty Reduction:The Case of the English Speaking Caribbean
7	By Lester Henry, PhD - Department of Economics, University of the West Indies, St. Augustine
8	http://www.caribank.org/Workshop.nsf/
9	Also : Electronic Commerce or Electronic Con â€" Benefits and Challenges for the Caribbean By Dr. Mark Bynoe*

Figure 4 – Thread from CIVIC Illustrating the use of Reasoned Arguments

10	http://www.caribank.org/Workshop.nsf/ b1da8bcd1e18562585256bb100553716/$FILE/Doc9.pdf
11	
12	Subject: [icacaribbean] RE: The Digital Divide, Economic Growth and Potential Poverty Reduction in the English Speaking Caribbean
13	From: Jane
14	Date:
15	To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org>
16	
17	John,
18	Thanks for bringing attention to these great resources!
19	A couple quick comments/questions
20	1.Many of the references in both papers, particularly the grey literature produced by caribbean scholars and policy makers contain very useful material, but the papers are NOT accessible, unless you were at the meetings, workshops etc.
21	Could this be a CIVIC project an electronic repository of caribbean ICT related policy documents (digitised of course).
22	**I raise this because unless we get our own story across, the history of Caribbean ICT development will be told by others!**
23	**Also it will avoid the duplication, and the sense that "nothing is happening, we are invisible"....**
24	2. From the URLs, these two papers seem to have been commissioned for an NSF workshop, do we know any more about that workshop and its outcomes, networks created etc
25	Have a good EASTER!!!
26	In solidarity
27	Jane
28	
29	Subject: [icacaribbean] RE: The Digital Divide, Economic Growth and Potential Poverty Reduction in the English Speaking Caribbean
30	From: Jim
31	Date:
32	To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org>

Figure 4 continued

33	Hi Jane,
34	I think the archiving of ICT documentation is an excellent suggestion for a CIVIC project
35	**Its consistent with the idea that John had advanced when he was in Trinidad and later proposed to the community - of a project on CIVIC itself.**
36	I'll try to integrate your idea into a draft project introduction and executive summary, the body of which we can work on collectively.
37	Peace,
38	Jim

Figure 4 continued

Interviewees from the GCFI list for most part felt that many of their colleagues did not simply offer unsupported opinions in debates. A few members suggested that this was because many participants were themselves academics and expected others to use evidence to support their assertions. Alternatively one member noted that many of the threads in GCFI were more about the reporting of facts rather than debates with differing opinions. Portions of a longer thread (thread #855) from the GCFI list are presented below in Figure 5. At with Figure 4, this serves to both illustrate the use of reasoned arguments on a specific list and how reasons are offered in general to support assertions across all three lists.

As before, statements coded as reasoned arguments are in bold. Here Don starts the thread by posting an article from a newspaper about a Grenadian (Michael Doran) with a plan to improve the domestic fishing industry by building larger boats. This idea and its assumptions are then critiqued by others on the list. For example, in line 15 Dean suggests that by itself the plan can result in overexploitation of fishing resources based on experience from other Caribbean countries. Dane (lines 24 and 25) disagrees with the suggestion to import boat designs from Scotland since adequate designs exist locally.

Dennis argues that the small boats have more local significance than the author of the article (Doran) recognizes because of the jobs/food they provide. Finally, Dirk disagrees with some of the authors demographic assumptions and provides reasons based on inferences about the population to support his position that Doran exaggerates the proportion of people engaged in fishing in Grenada.

Line number	Sentence
1	Subject: Replacing those modern fishing boats: FYI
2	From: Don
3	Date
4	Paper: Houston Chronicle
5	Date: SUN 08/20/00
6	Section: A
7	Page: 37 MetFront
8	Edition: 4 STAR
9	ROUGH SAILING / Geographer hopes project in Grenada will help replace 'modern' fishing boats
10	By ALLAN TURNER, Staff
11	
12	Subject: Re: Replacing those modern fishing boats: FYI
13	From: Dean
14	Date:
15	**Modernizing Grenada's fleet may increase catch in the short term, but without proper fishery and ecosystem management, increased effort will lead to overexploitation,as we have seen time and time again in the Caribbean.**
16	
17	Subject: Re: GRENADA: Replacing those modern fishing boats: FYI
18	From: Dane
19	Date:
20	GREAT STORY, and the kind of project that, as a sailor, Caribbean islands specialist, and ex-Peace Corps Volunteer and staff, makes me want to run down to the beach and say YES!
21	give me a hammer and I'll help but with some cautions starting with this --
22	> >Doran's plan is simple. He wants to commission two master boat builders to > >construct competing fishing vessels based on age-honored, double-ended > >Scottish whale boat designs.

Figure 5 – Thread from GCFI Illustrating the use of Reasoned Arguments

23	Why Scottish whale boats????
24	**The West Indies[7] have some of the most wonderful sailboat designs I have ever seen, including the small and medium-sized boats made in Nevis and Anguilla.**
25	**These boat are refined and sophisticated designs proven in hundreds of years of use (and hundreds of fiercely competed races) in the Eastern Caribbean.**
26	Dane
27	
28	Subject: Re: Replacing those modern fishing boats: FYI
29	From: Dennis
30	Date:
31	Hi there
32	I should like to note/comment on one thing.
33	The fact that most of Grenada's fishermen work from small boats near shore is not necessarily a bad thing when you put it in the cultural context.
34	**…Given the social structure of the communities along the coast, with the relatively high unemployment of these small island developing states, the beach seine fishery which uytilises these self-same small vessels provides (1) job-work for otherwise unemployed youth and (2) food for their families, since they are often given their payment in the form of a portion of the hauled catch.**
35	In fact in all the islands of the Eastern Caribbean which have a beach seine fishery this is the socio-cultural role it plays.
36	We must be careful not to judge what we see in SIDS by the standards of the "North" remembering that there is often a social and cultural significance over and above what seems to be technologically obvious.
37	The North/South divide is one of capital, technology, and culture.
38	Please guys try to remember that.
39	The moral of the story is don't knock the small boats unless you've given thought to all of the rolethey play in a culture
40	Dennis
41	
42	Subject: Re: Replacing those modern fishing boats: FYI
43	From: David
44	Date:

Figure 5 continued

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[7] The West Indies is another term used for the (mostly insular) Caribbean.

45	There's been some thoughtful traffic on some of the Caribbean email lists pertaining to traditional fishing craft recently.
46	I recall that there was a program to manage fishing capacity in the Chesapeake Bay by the state of Maryland in the US by permitting oyster dredging only from the traditional "skipjack" sailing vessels; while successful in keeping the skipjacks around, the fishery has eventually capitulated to disease and I believe that most of the boats are now kept afloat through revenues generated from tourism.
47	There's something that can be learned from the experience.
48	Best,
49	David
50	
51	Subject: Re: Replacing those modern fishing boats: FYI
52	From: Dirk
53	Date: Wed Aug 30 13:33:24 2000 EDT
54	Like Michael Doran, I am a Grenadian, and I am concerned about fisheries overcapitalization in Grenada and the rest of the Eastern Caribbean.
55	Doran's effort to retro- fit Grenada's fishing fleet to reduce costs associated with fishing may sound plausible in theory but may not be very practical for many of the reasons pointed out by Dennis in his response.
56	However, I am horrified by Doran's gross generalizations and misrepresentations about life in Grenada, and I'd like to clear up those misconceptions.
57	Doran states, and I quote, "Grenadian workers often are jacks of all trades, engaging in subsistence fishing, construction and a variety of other manual trades. "A 9-to-5 job is a rare thing." "They just do what they can."
58	Is Doran referring to the general Grenadian population?
59	If so, then he is wrong most Grenadian do not fish.
60	In 1993, the number of registered commercial fishing boats in Grenada was 405, a 200 % increase from the number of registered boats in 1986 (Jeffrey 2000).
61	Grenada's population is about 100,000.
62	**If we assume that each boat has a single owner, then these data suggest that less than 1 % of Grenada's population is engaged in commercial fishing.**
63	Doran himself suggests that less than 2% of the island's population are engaged in fishing.

Figure 5 continued

65	**Even if 10% of the population fish for a living, Doran's comments about "Grenadian workers" still are a gross over-generalizions.**
66	**The point is that most Grenadians do not fish for a living (either commercial or subsistence, full-time or part-time) many are employed either by the Government civil service, business sector (banking, insurance, tourism, private firms, construction) or farm land that they own.**
67	… My final comment is that as researchers and scientists, we must be careful to distinguish between our opinions and facts when providing a rationale for our work or extrapolating our research findings based on a subset of samples to a larger universe.
68	Dirk

Figure 5 continued

In this thread, reasons are used to back up assertions whether they pertain to the sustainability, local economic factors, or disagreements with the original author. Note that all the members in this thread are primarily responding to the article posted originally by Don although they do incorporate points made by others in the thread (mostly those of Dennis).

A final example from the SCVP list again serves to illustrate how reasoned arguments are used on that list and how reasons can be used to support assertions based on particular moral positions. Of the few people that were interviewed from SCVP, most felt that reasons were offered by participants in debates on the threads. However, and perhaps significantly, the moderator of the list noted that the frequency of these debates was less than he preferred. Figure 6 provides the text from one conversation (thread #913) which did not have opposing views on a subject.

Ben starts the thread by passing on an attachment – an instruction guide on youth and sexual orientation (subject line). Brian follows by expressing a concern for the use of "conversion" therapies (line 17). He also notes his related worry about church/missionary efforts that accepted these approaches by citing an example from Bermuda (lines 19-20). Bruce then tries to clarify the therapy issue with regard to the document that Ben sent originally (lines 28-29). Finally Ben replies to Brian pointing out that indeed many youth programs incorporate Christian values that assume heterosexuality among youth (line 37). He feels that this is a reason why their work with the youth is important.

Line number	Sentence
1	Subject: Youth and sexual orientation - a guide for school administrators
2	From: Ben
3	Date:
4	To: SupportingCaribbeanVulnerablePops@yahoogroups.com
5	Hey folks:
6	More on the issues of youth and sexual orientation.
7	As I read these guides, I realise how much the repression that faces young MSM[8] in the region makes it difficult to reach them in any structured way.
8	Certainly in Jamaica poor gay youth have a horrible time; many end up homeless as their families put them out.
9	Ben
10	
11	Subject: Re: [SupportingCaribbeanVulnerablePops] Youth and sexual orientation - a guide for school administrators
12	From : Brian
13	Date
14	To: SupportingCaribbeanVulnerablePops@yahoogroups.com
15	Ben,
16	I have seen this document before when trying to provide response services in Bermuda after a teenager was beaten repeatedly in a local high school.
17	My only concern was surrounding the issue of 'reparation' or 'conversion' therapies

Figure 6 – Thread from SVCP Illustrating the use of Reasoned Arguments

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[8] MSM – Men who have sex with men.

18	how do we get Caribbean educators and by extension, the general public, to look at homosexuals in a differnt light? not as people who are misaligned, but just as people with a different sexual lifestyle?
19	**Also, the whole thing about transformation ministries bothered me because a number of people in Bermuda bought into this, especially after the initial scare of HIV/AIDS in the 80's.**
20	**These gay men were so bothered by their past sexual activities that they chose to join the Valiant Ex-Gay Ministries - a group that actually came to Bermuda and tried to convert 'as many gay men as possible.**
21	This situation saddens me but what can we do?
22	Brian
23	
24	Subject: RE: [SupportingCaribbeanVulnerablePops] Youth and sexual orientation - a guide for school administrators
25	From: Bruce
26	Date:
27	To: <SupportingCaribbeanVulnerablePops@yahoogroups.com>
28	I have also seen this and read it very recently.
29	My understanding from reading this doc is that the APA repudiates 'reparation' or 'conversion' therapies
30	Bruce
31	
32	Subject: Re: Youth and sex
33	From: Ben
34	Date: Wed, 13 Jul 2005 06:09:55 +0000
35	To: SupportingCaribbeanVulnerablePops@yahoogroups.com
36	Brian:
37	**While we know there are lots of programs for youth, many are based on conservative Christian values, and almost all see youth as exclusively heterosexual.**
38	This is why the component our work that looks at youth from all our vulnerable groups, including underage sex workers and young substance abusers for example, is so important.
39	We are going to have to be innovative and work together.
40	We will also need to work out how to contend with the religious conservatives who will want to make not just us but the young people we serve invisible and voiceless.
41	I am attaching another study that shows that prevention messages and condom demonstrations do not result in increased sexual acitivity or early sexual initiation among youth.
42	Ben

Figure 6 continued

The subject matter of this thread is more value-laden than the previous two examples as it touches on issues of sexual orientation among young people as opposed to improving fishing livelihoods; and perhaps the least value-laden of the three examples, archiving research. As mentioned in Chapter Two, it is important to note that the validity and basis of reasoned arguments used by members in this research is not relevant. That is, I make no evaluation as to whether a reasoned argument is good or bad. Instead as part of the examining these threads, it is more important to observe the criticisms offered by the members themselves to these reasoned arguments.

5.2 The Role of Diversity

The emphasis of this chapter is on the external factors that are brought to bear on a conversation by participants. For example, from the three threads above we can see that the number of participants ranges from 3 to 6 members. While this is one feature of the structure of the threads, as mentioned earlier one set of characteristics of greater interest is the diversity among these members. More specifically I focus on two types of diversity: country and occupation, the first of which is more relevant to international contexts. The definitions and rules for determining country and occupation were presented in section 4.6.

In order to assess diversity I use the Blau index. As Harrison & Klein (2007) note the Blau index is used in the social sciences as a way of measuring diversity often in terms of variables about ethnicity or gender. These variables are typically categorical and are better suited for the Blau Index which looks at qualitative differences between

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observations and not distances. The Blau Index expresses the degree to which a group is homogenous or heterogeneous. It is calculated based on the formula: $1 - \Sigma p_i^2$, where p is the proportion of members in a given category and i is the number of categories. The index ranges from 0 (perfectly homogenous) to 1 (perfectly heterogeneous with an infinite number of categories). That is the more evenly spread out a set of observations are over a number of categories, the higher the index. Also, the higher the number of categories creates a higher maximum for the index. For example, a thread with 5 men would have a Blau index of 0; 2 men and 2 women would yield an index of 0.5; and a thread with 25% of members from Trinidad, 25% from Barbados, 25% from Cuba and 25% from Jamaica would have an index of 0.75.

To rephrase my earlier hypotheses based on these definitions : I hypothesize that the use of reasoned arguments is positively correlated with the Blau indices of country and occupation. I examine these questions below by using data from three different populations (CIVIC, GCFI and SCVP).

5.2.1 Country

With regard to the diversity in terms of country, I first look at the correlation coefficient (Pearson's R) between the number of reasoned arguments used per thread (Reason_Args) and the Blau Index of participant countries (Blau_Country). The results are presented in Table 18. Note that there is a significant relationship across all three lists and the strengths of the relationships are moderate. However, the correlation coefficient by definition assumes a linear relationship which might not be the case here. One measure that captures both the linear and non-linear components of a relationship is Eta. This can be used in a similar way to the correlation coefficient, but in this case 1

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represents a perfect curvilinear relationship between two variables. In Table 18, we can

see there is a strong curvilinear relationship between Reason_Args and Blau_Country in

two of the three lists, with the weakest relationship overall in SCVP list. These are better

observed in Figure 7 which contains scatter plots of Reason_Args and Blau_Country.

Table 18 – Correlation Results for Country Diversity and use of Reasoned Arguments for all Three Lists

List	Correlation Coefficient	Eta
CIVIC	0.3229**	0.9088
SCVP	0.2468**	0.3349
GCFI	0.2717**	0.6824

(** p<0.05; * p<0.10)

CIVIC   SCVP   GCFI
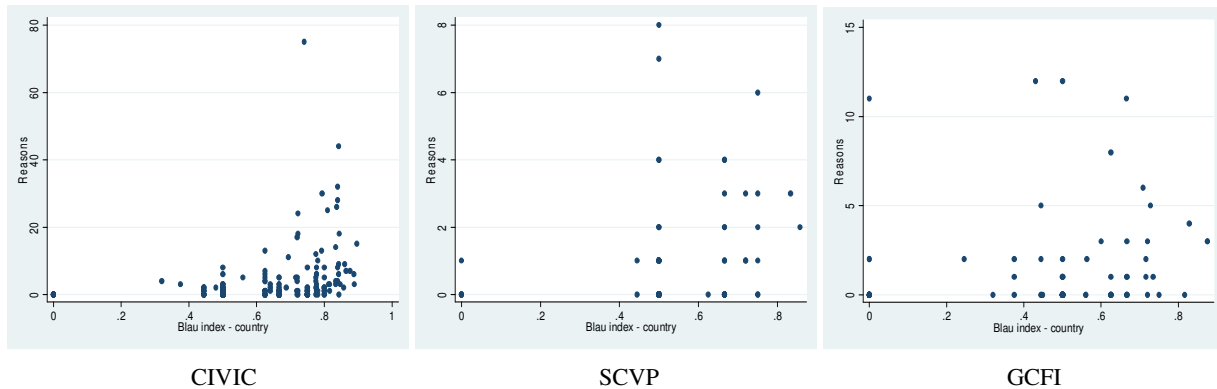
Figure 7 – Scatter Plots of Reason_Args with Blau_Country for all Three Lists

While this is an interesting result, one problem is that the total number of

participants in a thread is positively correlated with both Reason_Args (CIVIC r= 0.5659,

p<0.0001); GCFI r= 0.6640, p<0.0001; SCVP r=0.2906, p<0.001) and Blau_Country

(CIVIC r=0.5591, p<0.0001; GCFI r=0.4266, p<0.001; SCVP r=0.6325 , p<0.0001). This

relationship follows given that the value of Blau_Country increases in part from the

number of different countries represented on a thread. By definition Reason_Args can

increase if there are more emails in a thread since it is simply the total count of sentences

coded as reasoned arguments. Furthermore the total number of emails in a thread is positively and strongly correlated (CIVIC r=0.8986 , p<0.0001; GCFI r=0.9615 , p<0.0001; SCVP r=0.798 , p<0.0001) with the total number of participants as each participant has to make at least one post to be included.

To get a more accurate representation then of reasoned arguments in a thread, I divide Reason_Args by the total number of sentences coded in a thread to get ReasonsR. This is the proportion of sentences in a thread that are coded as reasoned arguments. However the above relationships between the total number of emails and participants in a thread with Reason_Args points to both as potential intervening variables when considering the relationship between ReasonsR and Blau_country. As such I use partial correlations between ReasonsR and Blau_country while controlling for the total number of participants and the total number of emails in a thread.

Table 19 replaces Reason_Args with ReasonsR to show the revised correlation coefficients with Blau_Country across all three lists. The size of the coefficients are lower than those of Table 18 and are also only significant for CIVIC and GCFI (at the 10% level). Also the Eta coefficients are somewhat higher than the correlation coefficients but now there is no evidence for an important non-linear relationship.

Table 19 – Correlation Results for Country Diversity and Proportion of Reasoned Arguments used (ReasonsR) for all Three Lists

List	Correlation Coefficient	Eta
CIVIC	0.20**	0.3847
SCVP	0.0396	0.087
GCFI	0.1784[+]	0.485

(** p<0.01; * p<0.05; +p<0.1)

There is no significant relationship in the SCVP list once we focus on the proportion of reasoned arguments rather than just the overall count, although the coefficient is positive. One possible explanation for this is that SCVP has the smallest set of countries across all three lists. While this could limit the maximum value that the Blau_Country variable could take relative to the other lists it does not necessarily mean that on average a thread in SCVP will be less diverse that those of other lists (Table 20). Specifically, the mean value of Blau_Country is not the lowest for SCVP. Perhaps more relevant is that SCVP has the smallest set of members which could have other implications. For example, it could imply that as a smaller and more intimate group, members place less emphasis on national differences while paying attention to others. In fact at least two interviewees from SCVP felt that country diversity was not that important for the list with one suggesting it was more important to ensure that the group had similar goals.

Table 20 – Descriptive Statistics for Blau_Country Across all Three Lists

Variable	Obs.	Mean	Std. Dev.	Min	Max
GCFI	97	0.34	0.26	0	0.87
SCVP	137	0.52	0.14	0	0.85
CIVIC	285	0.54	0.23	0	0.89

There is a significant relationship between Blau_Country and ReasonsR on the other two lists: CIVIC and GCFI, although it is stronger in CIVIC. T-tests[9] reveal that the difference between some country heterogeneity (Blau_Country>0) and no heterogeneity at all (Blau_Country=0) in terms of the mean proportion of reasoned arguments used in a thread was 4.6% in CIVIC and 3.2% in GCFI. This is important given that the maximum

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[9] Both tests were significant at the 0.05 level

value of ReasonsR for CIVIC was 0.21 (or 21% of the total coded sentences) and 0.19 for

GCFI (Table 21).

Table 21 – Descriptive Statistics for ReasonsR for all Three Lists

Variable	Obs.	Mean	Std. Dev.	Min	Max
GCFI	97	0.02	0.04	0	0.19
SCVP	137	0.03	0.07	0	0.4
CIVIC	285	0.04	0.05	0	0.21

One possible reason for this influence is that participants sometime used reasoned

arguments to get support for their positions when interacting with others who are from

different countries. In several threads from both CIVIC and GCFI, participants would

make reference to the nationality of other participants as a justification for articulating

their positions with reasoned arguments. This was not always the case however, which

explains why diversity is only one factor in explaining the use of reasoned arguments.

When asked whether or not international diversity would make discussions on the

list more challenging, several interviewees from CIVIC felt that it was in fact beneficial.

Specifically they felt that having a diverse set of perspectives from different countries

was important to the substance of discussions particularly for the Caribbean. Some

members even appealed to the deliberative ideal of having pluralistic views in a

conversation to improve debates. This sentiment was echoed by some members of GCFI

as well. In addition, members of that list viewed country diversity as a factor bounding

the scope of discussions rather than just the nature of discussions.

5.2.2 Occupation

The other relevant aspect of diversity on the lists is in terms of occupation. As with country diversity, two of the three lists show significant correlations between ReasonsR and the Blau index of participant occupations – Blau_Occupation (Table 22). Again these are partial correlations controlling for the total number of emails and participants in a thread. This suggests that along with country differences, different occupational backgrounds are associated with using reasoned arguments in a thread. However, the coefficients are only significant for GCFI and SCVP.

Table 22 – Correlation Results for Occupational Diversity and Proportion of Reasoned Arguments used for all Three Lists

List	Correlation Coefficient
CIVIC	0.0781
SCVP	0.1849*
GCFI	0.1945*

(** $p<0.01$; * $p<0.05$)

To go further I checked to see if within a diverse set of participants (in terms of occupation) in a thread, having a majority of a particular occupational group led to any differences in the mean proportion of reasoned arguments used over other groups. I classified threads into a new categorical variable based on whether majorities existed for each of the five occupational groups or whether no majorities existed at all. A one-way ANOVA with ReasonsR and this majority group variable was not significant for any of the lists. Even checking if the simple existence of particular groups in a thread led to differences in the mean proportion of reasoned arguments used was not significant. This suggests that there might not be readily recognizable patterns of occupational diversity related to the use of reasoned arguments in a thread.

As with country diversity, participants sometimes viewed differences in occupational backgrounds as a motivation for using reasoned arguments in a discussion.

References to this fact were more frequent than references about differences in country background mentioned above. Perhaps it was easier to mention or highlight differences based on occupational background than referring to the national backgrounds of other participants. This emphasis could also be a factor of the list itself. For example, in CIVIC participants referred to each other's national background more frequently than on other lists.

Perceptions about occupational diversity were positive for the most part across the lists, although there were a few exceptions. In the case of CIVIC for example, some interviewees felt that having more NGO participants on the list led to more active debates. One member suggested that NGO members were more likely to be invested in activist causes and were therefore more likely to start and engage in debates. Many of the NGO members who were interviewed felt that most discussions on the list had shied away from addressing issues relevant to civil society groups and instead emphasized business topics. They blame this in part on their belief that there is an increase in the number of businesses and consultants represented on the list. However from Table 11 (above) NGO members are still in the majority. Overall most members felt that diversity in terms of occupation (as with nationality) was important to the discussions on the list.

In sum both forms of diversity are relevant to explaining ReasonsR. In the case of country diversity there was a significant correlation between country diversity and ReasonsR in CIVIC and GCFI. However, unlike country diversity, there was no relationship between ReasonsR and occupational diversity in CIVIC. Instead there was a significant relationship between occupational diversity and ReasonsR in SCVP. Thus both forms of diversity appear to be most relevant in explaining ReasonsR in GCFI.

The first research question focused on factors that influenced the use of reasoned arguments in an international civil society context. Specifically, there were two hypotheses related to diversity:

1.1 The use of reasoned arguments within a thread increases as the diversity among members in terms of countries increases.

1.2 The use of reasoned arguments within a thread increases as the diversity among members in terms of occupational groups increases.

Based on the above evidence I would accept both hypotheses. Both country and occupational diversity were found to be significantly correlated with ReasonsR in two out of the three lists. The statistical results were stronger for occupational diversity and could be because this form of diversity was easier for participants to acknowledge. Also of note is that both types of diversity are only significant in GCFI suggesting that diversity is more relevant in this list than the other two.

5.3 Narratives as Alternatives to Reasoning

Narratives were introduced into the coding process to capture alternative ways of using reasoned arguments in a thread. As before we use the proportion of narratives used (NarrativesR) rather than the total count. From Table 23, we can see that the mean proportion of narratives used per thread is very low, less than 1% for all lists. The actual occurrence of narratives is quite low and also smaller than that of reasoned arguments. Comparing across the lists, the mean and maximum values for GCFI are higher. However, the percentage of threads in the sample that have a positive value for NarrativesR, is 15%, 7% and 8% for CIVIC, SCVP and GCFI respectively.

Table 23 – Descriptive Statistics for NarrativesR for all Three Lists

Variable	Obs	Mean	Std. Dev.	Min	Max
CIVIC	285	0.004	0.01	0	0.12
SCVP	137	0.004	0.02	0	0.17
GCFI	97	0.008	0.043	0	0.33

The hypothesis (1.3) concerning the proportion of narratives included a negative correlation with the Blau indices for country. Table 24 shows that there is no significant result for country diversity in any of the lists. These correlations control for the total number of participants and total number of emails in each thread. Thus there is insufficient evidence to support the hypothesis.

Table 24 – Correlation statistics for NarrativesR and other key variables for all three lists

	CIVIC	SCVP	GCFI
Blau_Country	0.098	0.1218	-0.0494
Blau_Occupation	0.0201	0.1622*	0.0579

To go beyond this hypothesis I also looked at the relationship between NarrativesR and Blau_Occupation. Although we would not expect a significant relationship between the use of narratives and occupational diversity, Table 24 shows that this exits for the SCVP list. Recall that for the three diversity variables on the SCVP list, ReasonsR was only significantly correlated with occupation. These results would imply that occupational diversity is particularly important on this list. If we look back at Table 9 (Occupational groups by List), members of the SCVP list appear to be concentrated in the

NGO category (57%). Including persons from other occupational groups in a thread is positively correlated with the use of reasoned arguments and narratives on that list.

When asked if using narratives could be a useful way of supporting one's arguments, several interviewees replied in the affirmative. One university professor on CIVIC felt that academics in general were limited in the way they think and using personal stories was a better way of keeping arguments closer to reality. Another academic on GCFI suggested that narratives were important as they sometimes represented "traditional ecological knowledge" which was important to discussions on marine and fisheries issues. It seems that the degree of support also depends on one's perceptions about the importance of qualitative versus quantitative evidence. Some non-academics members of CIVIC and GCFI felt that while narratives were unverifiable and not on the same level as fact based evidence, they were still useful. Another member of CIVIC felt that it was more important to hear about the personal stories of other members when discussing ICT issues rather than providing statistics. She felt that qualitative data was more important although so was having diverse views in the forum.

Without emphasizing diversity, members from all three lists felt that both facts based evidence and personal stories were important. However, members from all three lists also pointed out that this was seldom the case as suggested in Table 23. Some members from CIVIC and GCFI felt that there had to be a feeling of trust among members for narratives to be used more. This could partly explain why it was used on some lists and not others. Exploring community values and trust among members of an online group could reveal the conditions under which narratives are used as part of deliberation. For example, in the GCFI list, one suggestion was that narratives take on

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greater validity because among scientists there is an expectation of integrity.

Alternatively one member of CIVIC thought that narratives worked because of the shared

development goals that members had towards the Caribbean.

5.4 The Role of the Moderator

Each of the three lists has a volunteer moderator whose main purpose includes

ensuring discussions are relevant as well as fulfilling several administrative functions.

The exact nature of this role varies and is interpreted differently by each moderator.

Furthermore, the level of participation by the moderator also varies. I created a dummy

variable (mod) which is equal to one if the moderator posts an email to a thread. Table 25

shows the summary statistics for this variable. Note that in the GCFI, the moderator is

only active in 7% of all threads compared to 77% for SCVP.

Table 25 – Descriptive Statistics for Dummy Variable MOD for all Three Lists

	CIVIC		SCVP		GCFI	
MOD	Freq.	Percent	Freq.	Percent	Freq.	Percent
0	183	64.21	32	23.36	90	92.78
1	102	35.79	105	76.64	7	7.22
Total	285	100	137	100	97	100

To test the hypothesis of whether moderator participation on a given thread

increases the proportion of reasoned arguments used, I conducted t-tests for each list

using ReasonsR and the grouping variable MOD. Table 26 lists the mean differences

between threads with moderator participation and those without. In terms of the

proportion of reasoned arguments used, the results were significant for both CIVIC and

GCFI (although this was at the 10% level). That is, the mean difference in proportion of

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reasoned arguments used in a thread between those with moderator participation and those without was 0.013 for CIVIC.

Table 26 – T-test Results for MOD

	CIVIC	SCVP	GCFI
Mean difference for ReasonsR	0.0131*	0.01	0.033+
Mean difference for NarrativesR	0.003	0.007*	-0.009

(** p<0.01; * p<0.05; +p<0.1)

Together these results show the importance of the moderator in different ways for each list. In CIVIC, the emphasis is on the use of reasoned arguments while for SCVP it is on narratives. For the most part, the moderator of CIVIC often posts what he considers interesting articles to the list such as new items, event/job announcements, etc. In an interview he pointed out that he hardly gets involved in discussions on the list although he will respond to questions as they arise. These questions often pertain to the organizational structure and participation/voting rules on the list.

CIVIC is a moderated list which means that each email has to be approved by the moderator before being sent to the list. The moderator makes a distinction between moderation (making sure emails are relevant to list) and censorship (limit the opinions of members). While he seldom exercises the former function, he has rarely had to censor an email. Another important function that the moderator says he performs is to control the pace of the emails. Some members of the list prefer to have sufficient time between emails to read and properly respond. Thus the moderator purposely delays the sending of messages to the list. This is also to accommodate those who are less technically savvy

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and allows the moderator to "manage the rhythm of the discussions." However, a few other members (who describe themselves as more tech savvy) feel that this function slows down the "natural" pace of discussions.

In contrast SCVP is not a moderated list. In this case the moderator suggests that moderation is not required as members of the list are there are no major conflicts between members. This appeared to be the main reason for moderation for him as opposed to setting the pace of emails or removing unrelated emails. He adds that the SCVP represents a save space for members to discuss issues related to HIV/AIDS, and other sensitive issues in the Caribbean. Thus openness is important rather than moderation. For the most part, his contributions to the list are also in the form of news articles, relevant multi-media clips, etc. Unlike the CIVIC moderator, he does not make a major distinction between his role as the moderator and his membership in the SCVP list. Thus he is more willing and has participated in discussions on the list as can be seen in Table 25 above.

The t-test results for GCFI appear to follow from the low level of participation of the moderator overall. The moderator felt that his primary role was that of moderator and less of a member on the list. As such he hardly ever posted to the list (Table 25). In fact he focused on moderating emails to the list as did the CIVIC moderator. In fact for several years, all emails came through his address and he added the author's name to each email in the body. This has since been changed and members will see their own information in the header of an email sent to the list.

In terms of moderation, the GCFI moderator focused on preventing advertisements and personal attacks from being sent to the list. Although the latter was rare they could have been detrimental to the atmosphere of the list. The main issue in

terms of moderation was advertisements that members would send on behalf of their businesses. Another important issue was to make sure that joining the list was based on approval of the moderator and not automatic. This was also the case with the other lists but the GCFI moderator emphasized that this prevented spam from reaching the list which was important. Overall he felt that moderation was a big benefit to the list as it helped the discussion and avoided unnecessary emails.

The size of the community appears to be related to how the role of the moderator is defined. In a larger community this means that the moderator has to be more vigilant in making sure relevant emails are sent to the list, while limiting participation in the list itself. This could be beneficial to the overall use of reasoned arguments on a list.

Hypothesis 1.4 regarding moderator activity, stated that the use of reasoned arguments within a thread will be higher if the moderator is a participant in that thread than if he/she is not. Based on the above, there is evidence to support this hypothesis for CIVIC and GCFI as moderator activity created a significant and positive difference in the mean ReasonsR for threads in that list. I also conducted t-tests for NarrativesR using the grouping variable MOD (for moderator activity). Again this test was only significant in one of the three lists: SCVP. While pointing to the potential relevance of the moderator in deliberation, the data also show that there several relevant patterns to consider such as the moderation style and purpose in each list.

5.5 Scope and Topic as Boundaries to Reasoned Arguments

The final section on factors related to the use of reasoned arguments concerns two thread level characteristics – scope and topic. The distribution of threads by topic were

presented in tables 13-15 in section 4.7 above and are repeated here for the benefit of the

reader. In each list, there are a few topics that most threads fall under. The concentration

is highest in GCFI (e.g., academic) and the least in SCVP.

Table 13 – Threads by Topic – CIVIC

Topic	Freq.	Percent
Academic	18	6.32
Commercial activity/Investments	15	5.26
Conference/Events	65	22.81
ICT Application Areas	70	24.56
Organization	57	20
Regulation/Legal	60	21.05
Total	285	100

Table 14 – Threads by Topic – GCFI

Topic	Freq.	Percent
Commercial activity	10	10.31
Conservation issues	24	24.74
Academic	48	49.48
Organization	8	8.25
Regulation/Legal	7	7.22
Total	97	100

Table 15 – Threads by Topic – SCVP

Topic	Freq.	Percent
Conference/Events	19	13.87
Funding opportunities	21	15.33
HIV/AIDS	21	15.33
Human Rights	35	25.55
Narcotics	13	9.49
Organization	14	10.22
Academic	14	10.22
Total	137	100

I hypothesize that certain topics have a higher correlation with the use of reasoned

arguments in a thread than others. These topics are related to the core stated purpose of

the list and will have a higher mean proportion of reasoned arguments used. For CIVIC this is ICT applications, for SCVP its human rights and for GCFI its conservation issues. These also happen to be some of the larger topics (in terms of frequency of threads) for each list. I begin by carrying out a one-way ANOVA to test for a significant difference between topics in terms of the proportion of reasoned arguments in a thread. The results were significant for CIVIC (F=3.06, p<0.05) and GCFI (F=3.96, p<0.01) but not for SCVP (F=1.06, p<0.387). Next I used a series of t-tests to determine if the there was difference in the mean proportion of reasoned arguments used between hypothesized topics and other topics. In all three cases, the t-tests were not significant. Instead, additional t-tests revealed that each list had another set of important topics related to the use of reasoned arguments. In CIVIC these were threads that discussed commercial activities and IT investments (mean difference was 0.29, p<0.05). In GCFI this was regulation and policy issues (mean difference was 0.28, p<0.01).

Threads that discussed commercial activity in CIVIC consisted of debates about the efficacy of telecommunication companies to deliver services effectively to consumers. In countries where monopolies existed, members were often critical of these companies and usually showed a preference for more competitive and regulated markets. In addition, members were sometimes critical of foreign owned enterprises that dominate the markets in the Caribbean. Other discussions included the market share among cell phone companies, outsourcing business opportunities and the commercial potential of call centers in the region. However, in general, reasoned arguments were employed as part of a critique of telecoms companies in the region with members often agreeing with each other.

Discussions about regulation/legal issues in GCFI included the regulation of protected marine areas and commercial fishing, the legality of introducing certain new species to the region and the import and sale of restricted seafood. Unlike CIVIC, each of these issues generated differences of opinions particularly in terms of how the law should be applied, whether it was effective in the first place and how it could be improved. Although they were discussing laws for specific jurisdictions, members often made comparisons across the Caribbean. Reasoned arguments in these threads were often used to support opinions regarding the applicability or effectiveness of a given regulation.

Ostensibly each list has a set of major topics based on their stated purposes and of the frequency of threads falling under a given topic. However, as shown here these major topics are not necessarily the ones most likely to exhibit differences in the mean proportion of reasoned arguments used in a thread. Also, this does not necessarily require a topic that stimulates differences of opinions among members. Thus while topics are correlated with the use of reasoned arguments, the type of topics that are most associated with the use of reasoned arguments depend on the unique nature of each list.

The distribution of threads by scope was presented in table 16 in section 4.7 above and is also restated here. Given the emphasis on all three lists on the Caribbean, I hypothesize that threads that focus on the regional level will have a higher mean proportion of reasoned arguments than other threads.

Again I start with a one-way ANOVA for each list testing if there is a significant difference in the mean ReasonsR for different types of scope for each list. The results were significant only for the GCFI list at the 10% level (F=2.37, p=0.0754). Specifically, the main difference in the mean proportion of reasoned arguments in a thread occurs

between threads that focus on the country level and those that do not. The mean

difference in these cases was 0.05 (p<0.01).

Table 16 – Distribution of Threads by Scope Across all Three Lists

Scope	CIVIC		GCFI		SCVP	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Area within a country	-	-	13	13.4	-	-
Country	61	21.4	6	6.19	27	19.71
Sub-region	11	3.86	4	4.12	7	5.11
Entire Region	153	53.68	74	76.29	79	57.66
Global	26	9.12	-	-	21	15.33
Internal	34	11.93	-	-	3	2.19
Total	285	100	97	100	137	100

There are however, very few threads that focus on the country level in GCFI

(Table 16). Although a Fisher's exact test shows that there is a significant relationship

between the scope and topic of threads in this list (p<0.01), in the case of "country" these

threads cover almost all topics except for the organization itself (Table 27). Also three of

the six threads in the country category focus on Belize although the participants and

topics are different in each case. In the case of GCFI, there is no obvious explanation as

to why threads in the country category have a greater mean proportion of reasoned

arguments than other threads.

Table 27 – Cross Tabulation of Topics and Scope of Threads in GCFI

Topic/ Scope	Commercial activity	Conservation issues	Academic	Organization	Regulation	Total
Within country	2	8	3	0	0	13
Country	2	1	1	0	2	6
Region	5	13	43	8	5	74
Subregion	1	2	1	0	0	4
Total	10	24	48	8	7	97

As with the topic variable, the most frequent category in terms of a thread's scope (entire region) was not correlated with the use of reasoned arguments. Instead the country category was significant albeit in GCFI only. For most interviewees across all three lists having a regional and not country level scope to discussions was important. Members of the SCVP list felt that focusing on the region enabled a critical mass of participants which was not available at the country level within the domain of HIV/AIDS in the Caribbean. Similarly several members of CIVIC argued that the list help achieved a critical mass in the ICT issues in the region. Members of GCFI suggested that the marine resources in the Caribbean are in fact shared across countries and that it was natural to focus discussions on a regional level. Thus while members from all three lists appreciated the importance of a regional level forum and were more likely to engage to regional level discussions, the use of reasoned arguments were not correlated with discussions at this level.

The analysis of the topic and scope of threads in each list results in a rejection of the last two hypotheses regarding the use of reasoned arguments. These were:

1.5 The use of reasoned arguments within a thread will be higher if topic of the thread is the main topic of the list.

1.6 The use of reasoned arguments within a thread will be higher if the scope of the thread is about the region as a whole.

In both cases the ANOVA results indicated that there were differences in the mean ReasonsR for both topic and scope for the three lists. However these differences were not as predicted. The results do suggest that there are other relevant patterns of note. For

example, in CIVIC although not the most popular in terms of number of threads, commercial activity was the topic that led to an increased use of reasoned arguments. In GCFI, the most relevant scope that led to an increased use of reasoned arguments was the country level.

5.6 Summary

The chapter examines some of the factors that influence online deliberation in an international NGO context. Specifically I focused primarily on one dimension of online deliberation – the use of reasoned arguments. Also, I used the proportion of reasoned arguments in a thread rather than the overall count. Several factors were then identified as being positively correlated with the proportion of reasoned arguments measure.

Diversity among members in terms of country was the first factor. I hypothesized that that there would be a positive relationship between country diversity and the use of reasoned arguments. This relationship was positive and significant in both the CIVIC and GCFI lists. T-tests also revealed that there was a significant difference in the mean proportion of reasoned arguments stated between threads that had some country diversity and those that had none. Both these lists had large memberships from a variety of countries unlike SCVP. In addition, members from both CIVIC and GCFI stated that national diversity was important and beneficial to the list while this was not the feeling among interviewees from SCVP. Thus the extent to which country diversity is correlated to the proportion of reasoned arguments used in a thread could depend on the size of the membership and also attitudes that these members have towards national diversity. This result supported the first hypothesis – 1.1.

Occupational diversity was also positively correlated to the proportion of sentences in a thread coded as reasoned arguments. In fact the correlation was significant for two lists supporting the second hypothesis 1.2. In addition, I attempted to discover if there were combinations of occupational groups that were more important than others, but this did not yield any significant results.

I also looked at the use of narratives as an alternative to reasoned arguments. Specifically I checked if there was a negative correlation between the proportion of narratives used in a thread and country diversity. The results were not significant for any of the lists, thus rejecting hypothesis 1.3. While it is interesting that narratives were used in all three lists and that some members felt that was a useful way of supporting one's arguments, it is not clear what role if any they play in international contexts. Including narratives as part of an analysis of deliberation is novel and perhaps further work could examine how different types of narrative such as those used by Black (2009) are linked to factors of diversity.

The next set of hypotheses concern variables that were used to classify threads. Whether or not the moderator participated in a thread was hypothesized to make a difference in the proportion of reasoned arguments used (hypothesis 1.4). T-tests was significant for CIVIC and GCFI only, while another test was significant for SCVP using narratives. This suggests that I can accept hypothesis 1.4. These results stem in part from the function of moderator, how they perceive their role, and the extent that they participate in discussions.

Finally, hypotheses 1.5 and 1.6 are concerned with the topic and scope of a thread respectively. Using a series of one-way ANOVA I showed that there was a significant

difference in the mean proportion of reasoned arguments used between threads with different topics for CIVIC and GCFI. However t-tests results show that topics which created these differences were not necessarily the ones most related to the core theme of each list. Thus while I would have to reject hypothesis 1.5 as worded, these results indicate the thread topic is significantly related to the use of reasoned arguments. Predicting which topic is relevant depends on factors unique to each list such the interests of members. A similar procedure was used with the variable for scope for each list. In this case only GCFI was significant at and the country level. Based on this I would also have to reject hypothesis 1.6. Interestingly enough, members from all three lists including GCFI suggested that focusing the scope of discussions at the regional level was beneficial for a variety of reasons.

Based on the foregoing, the variables that were significant in at least two out of three of the lists include country diversity and occupational diversity. The first variable in particular points to the efficacy of deliberation in international contexts at least in terms of the use of reasoned arguments. Also the inclusion of country and occupational diversity is unique among analyses of online deliberation. The lack of significance of other variables such as narratives is relevant given its potential relevance in multi-cultural contexts. Together these variables add significant pieces to the puzzle of how an important part of deliberation (the use of reasoned arguments) occurs in the online discussions of NGOs. They are all potential explanatory variables and would have to be included in any general model explaining deliberation.

One implication of these findings is that although challenging, online deliberative fora can indeed benefit from having a diverse set of participants. Encouraging such

diversity could in fact be an aim for civil society groups or designers of online discussion spaces. For example, one factor to consider is the potential of the moderator to encourage deliberation and specifically the use of reasoned arguments and narratives. This would be combination of both moderator style and the rules of the list. Also, the thread and scope of a conversation are relevant in terms of reasoned arguments and civil society groups could explore what these are for their unique contexts. With regard to scope, it was clear that in a regional context, having a regional focus was important for the opportunity to deliberate, at least in the mind of participants. However, such regional discussions might not necessary lead to a greater use of reasoned arguments.

CHAPTER 6

RECIPROCITY

6.1 Determining Reciprocity

Reciprocity is an important part of the deliberative process, as participants not only use reasons to support their arguments but also respond to the arguments and positions of others. I define reciprocity as the extent to which members in a conversation reply to each other's messages. This is operationalized as the proportion of emails in a thread between two members (e.g. A to B) that receive a reply (e.g. B to A). This definition emphasizes reciprocity by focusing on replies that reciprocate communication between two members. However there are a few points that require further clarification.

First, although I am looking at the proportion of replies this metric will always be less than one as not all emails in a thread can receive a reply, such as the last email, for example. Thus the minimum value for reciprocity will be zero while the maximum will vary by thread. Second, all three sample email corpora are from listservs which mean that all emails are actually sent to a central listserv address. In fact, the first email in the thread is usually sent to the list and not to an individual member. Given the definition above, such an email could not receive a reply as the "list" is not a member. Accordingly, these emails are not included in the set of emails in a thread between two members. Third, because the unit of analysis is the thread, most emails after the initial message are a sequence of replies. However, note that following the definition above not all replies are counted – only those that reciprocate an email between two members.

An illustration at this stage will help explain how reciprocity is calculated with these points in mind. Figure 8 below is an example of a thread from GCFI where members are connected to each other by the emails they send. It consists of three emails in total:

(1) Jackie sends an email to the list.

(2) Justin then sends an email to Jackie

(3) Jackie then replies to Justin.

Given that the first email is not considered (sent to the list), we are left with two emails. Of these one received a reply (Jackie → Justin). This means that reciprocity here is 1 reply/ 2 emails or 0.5. For purposes of discussion later on, I also define the reciprocity between Jackie and Justin as a reciprocal email relationship.
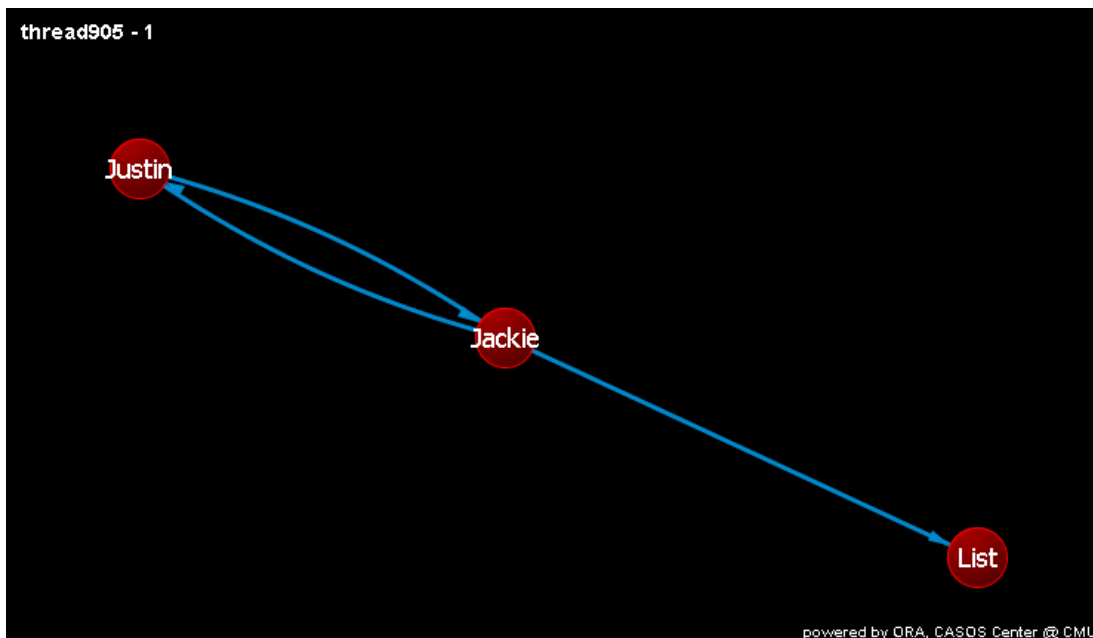
Figure 8 – Thread from GCFI Illustrating the Definition of Reciprocity

In order to identify which emails are relevant replies, I need to identify the sender and recipient of each email. In the above example, information from the email header points to the sender of each email. To determine the recipient, the email header will also point to whom the email is replying to (the in-reply-to field). If this information is not available then we can check which email is quoted by the email in question. A reply will quote the original email and the author of the quoted email is the recipient of the email in question. In this way, one could tell that Justin was the sender of the second email (2) and that email (3) was a reply to email (2) because the in-reply-to field made this association.

While this method is straightforward enough, I soon realized that there were several instances where a person would reply to a given email but did not address it to the author of that email. Instead the reply was addressed to someone else. In that case, if we relied on header information and/or quotations alone we would have identified the correct email which was being replied to but not the correct member. As a result one could determine the recipient of an email based on header information or by examining the text of the email. I explored both options and found that typically the identified recipient was the same. If I take the total replies received for all members using information from the email headers in a sample and compare that with the total replies received using information from the text of the emails in the same sample; a paired t-test shows that they are significantly different. This is the case for all three lists (CIVIC and GCIF $p<0.0001$; SCVP $p<0.05$). In GCFI replies and responses were the same for all emails 70% of the time. For CIVIC and SCVP the same statistic was 74% and 85% respectively. However in the analysis presented here there is no significant difference in the results in terms of

structural and time-based factors associated with reciprocity. Therefore I use header information to determine the recipient of an email in this chapter.

For each thread I calculated its reciprocity value and called this variable Reciprocity-Reply. The summary results of Reciprocity-Reply were presented in tables 8-10 for all three lists. These statistics are repeated in table 28 for the benefit of the reader. Note that the mean values are low for all three lists for both variables. GCFI is unique from the others in that the mean for Reciprocity-Reply is particular low (approx 2%). In fact, only 10% of threads have a reciprocity value greater than zero in that list. The same statistic was 39% and 32% for CIVIC and SCVP respectively.

Table 28 – Descriptive Results for Reciprocity-Reply

Variable	Observations	Mean	Std. Dev.	Min	Max
CIVIC: Reciprocity-Reply	285	0.12	0.18	0	0.67
SCVP: Reciprocity-Reply	137	0.14	0.22	0	0.8
GCFI: Reciprocity-Reply	97	0.024	0.08	0	0.5

6.2 Reciprocity and Time

Of interest are the characteristics of communication in a thread that are associated with reciprocity. Tyler & Tang (2003) identify several individual level variables that can help explain when a person might response to another. In this section, I am, however, more interested in thread level variables that are associated with the overall reciprocity in a conversation. I start by looking at three variables related to the measurement of time in a thread. However, one important variable that correlates with both the time-based

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variables and Reciprocity-Reply is the total number of emails in a thread. I therefore use partial correlations in the analysis below while controlling for the total number of emails in each thread.

The first time-based variable is the length of the thread in terms of time. The total time of a thread from the first email to the last email was calculated in terms of hours. It was hypothesized that there would be a positive correlation between the time-span of a thread and reciprocity. However from table 29 below, this correlation was only significant in CIVIC.

This result suggests that for CIVIC the total time-span of a thread could be used as evidence of reciprocity. This relationship is not significant for the other two lists suggesting that reciprocity does not increase over time in a thread. Thus, in these lists, one would have to look to other measures of time in a thread for relationships with reciprocity.

Table 29 – Correlation Coefficients Between Reciprocity-Reply and Time Variables for all Three Lists.

Variables	CIVIC	SCVP	GCFI
Total time-span of thread (hours)	0.1262*	-0.0379	0.0142
Average time between emails (hours)	0.0901	-0.0875	0.0314
Age of thread (total months since start of list)	-0.1468 *	-0.1999*	0.1311

(** p<0.01; * p<0.05)

Another aspect of time is the average delay between emails in a thread. A lower average implies that participants are sending emails quickly to the list and could be an indicator of an intense discussion among participants. Thus it was hypothesized that there

was a negative relationship between average time between emails and Reciprocity-Reply. However, there is no correlation between these two variables for any of the lists suggesting that reciprocity is not related to how "intense" the discussion is in the thread.

What is significant for at least two of the lists is the relationship between the age of the thread and reciprocity. Age in this case refers to the difference between the date of the first email in the thread and the date of the first email in the list. It gives an indication of how much time has elapsed since the start of the list up to the present conversation. In this way the most recent threads in the sample (those from August 2009) have the highest value for age and might be considered "old". The correlation coefficients are significant and negative for both CIVIC and SCVP, although it is weaker in CIVIC. This can be interpreted to mean that threads with higher reciprocity are also those closest in date to the start of the list. A possible explanation for this result is that participants were more likely to engage with each other on certain topics earlier in the list of the list. While the age of a thread does significantly differ according to the topic of the thread for all three lists (p<0.01), a one-way ANOVA shows that reciprocity-reply significantly varies by topic in SCVP alone. However, those topics where the age of the thread varied were not the same as those where reciprocity-reply varied in SCVP.

Another explanation might look specifically at the participants that engaged in reciprocal email relationships in threads. Each reciprocal reply or response involves two participants. If we look at those participants who were most active in reciprocal emails and look at what time periods they have been on the list, this might help explain the correlation between reciprocity and the age of a thread. In SCVP, of the twenty-eight participants in the entire sample, eighteen are part of reciprocal reply emails. However,

even though the list was started in 2005, eleven of the eighteen participants responsible for reciprocity-replies on the list last posted around 2007. The numbers are similar for reciprocity-responses. The ebb and flow of membership numbers is a normal part of the list's evolution. In this case, it seems that lack of participation of certain members over time partly explains the negative relationship between the age of a thread and its level of reciprocity. For CIVIC which started in 2002, approximately half or 80 out of its 165 members were engaged in reciprocal-reply email relationships. However only 22 of the 80 stopped posting by 2007. The lack of participation of certain members in this case is not as dramatic as in SCVP and could explain in part the weaker correlation between the age of a thread and its reciprocity in CIVIC.

Correlations between the three time based variables and reciprocity was not significant in GCFI. As noted above, only 10% of all threads or about 10 threads have a positive reciprocity-reply value. Also, there are about 17 participants (out of 199) that are involved in reciprocal email relationships. However, there is no discerning pattern to these participants as they represent a variety of occupations, countries and both genders. Nor is there anything unique about the threads themselves in terms of topics, scope, moderator input, etc. It would appear that in the case of GCFI neither reciprocity nor the lack of it appears to be related to variables of time or to personal characteristics of the participants.

With regard to the second research question which looked at posting patterns and reciprocity, the above analysis shows the different ways in which time-based variables are related to reciprocity. Specifically, the first hypothesis related to question two (hypothesis 2.1) stated that reciprocity would increase with the total time-span of a

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thread. Based on the above evidence, I would accept this hypothesis for CIVIC only. The second hypothesis (2.2) concerned the average delay between emails. No evidence was found to support this hypothesis and so I would reject it. The average time delay between messages is not correlated with reciprocity on these lists. The third hypothesis (2.3) in this section concerns the "age" of a thread. In this case significant correlations were found in two of the three lists: CIVIC and SCVP. However, the direction of the relationship was not positive as hypothesized. Thus, although I could not accept this hypothesis, this result points to an interesting consideration for reciprocity. That is, the ebb and flow of membership and in particular the communication patterns between members can influence reciprocity over time.

6.3 Reciprocity and the Posting Structure of Threads

In considering the structure of communication in a thread, the focus is on the distribution of posts and replies within a thread. Specifically I use two variables. First there is the SentGINI. This is the GINI coefficient of the total number of emails that each participant in a thread has sent. A high coefficient will mean that few people are doing most of the talking as it were. The second variable I use is the ReplyGINI. This is the GINI coefficient of the total number of replies that each participant in a thread receives. Again, a high GINI coefficient in this case would mean that a few people are receiving most of the attention of the others.

The GINI variables and Reciprocity-Reply are all correlated with the total number of emails in a thread. The GINI variables are highly so, particularly for SentGINI. Thus I use the total number of emails in a thread as a control variable in calculating the partial

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correlations between reciprocity and the posting structure variables. These correlation coefficients are shown in table 30.

The results, in terms of significance and direction, are similar for all three lists across both variables. There is a negative correlation between ReplyGINI and Reciprocity-Reply. The implication is that more people receiving replies in a thread is associated with an increase in reciprocity in that thread. This would follow given that reciprocity involves having at least 2 people receiving a reply (A sends to B and B sends to A). What is interesting is that in the SCVP list the correlation is very strong relative to the other lists. This is possibly because a larger proportion of participants were engaged in reciprocal email relationships. In SCVP this group accounted for 64% of all members compared to 48% for CIVIC and 8.5% for GCFI. Since a large number of persons were involved in reciprocal emails, then replies would have to be spread out more evenly among members. Of course this does not clarify the direction of causation here, but it seems that having many people receiving replies in important for reciprocity.

Table 30 – Correlations Coefficients between Reciprocity-Reply and Posting Structure Variables for all Three Lists.

Variables	CIVIC	SCVP	GCFI
SentGINI	0.6251**	0.2358**	0.6138**
ReplyGINI	-0.4347**	-0.8170**	-0.5814**

(** $p<0.01$; * $p<0.05$)

The positive result for SentGINI in table 30 implies that fewer people sending more emails is associated with higher reciprocity in a thread. This could stem from the fact in all three lists, most people involved in reciprocal email relationships were also those responsible for sending the most emails to the list. Thus their participation in a

thread would imply fewer people sending more emails. However, this argument could also apply to replies/responses and yet the coefficients for both variables take different signs. The underlying relationship between SentGINI and ReplyGINI could be relevant here. For all three lists there is a negative correlation between the two (SCVP and GCFI $p<0.01$; CIVIC $p<0.1$). However the coefficients are smaller than those in table 30 suggesting that reciprocity partly accentuates this negative relationship.
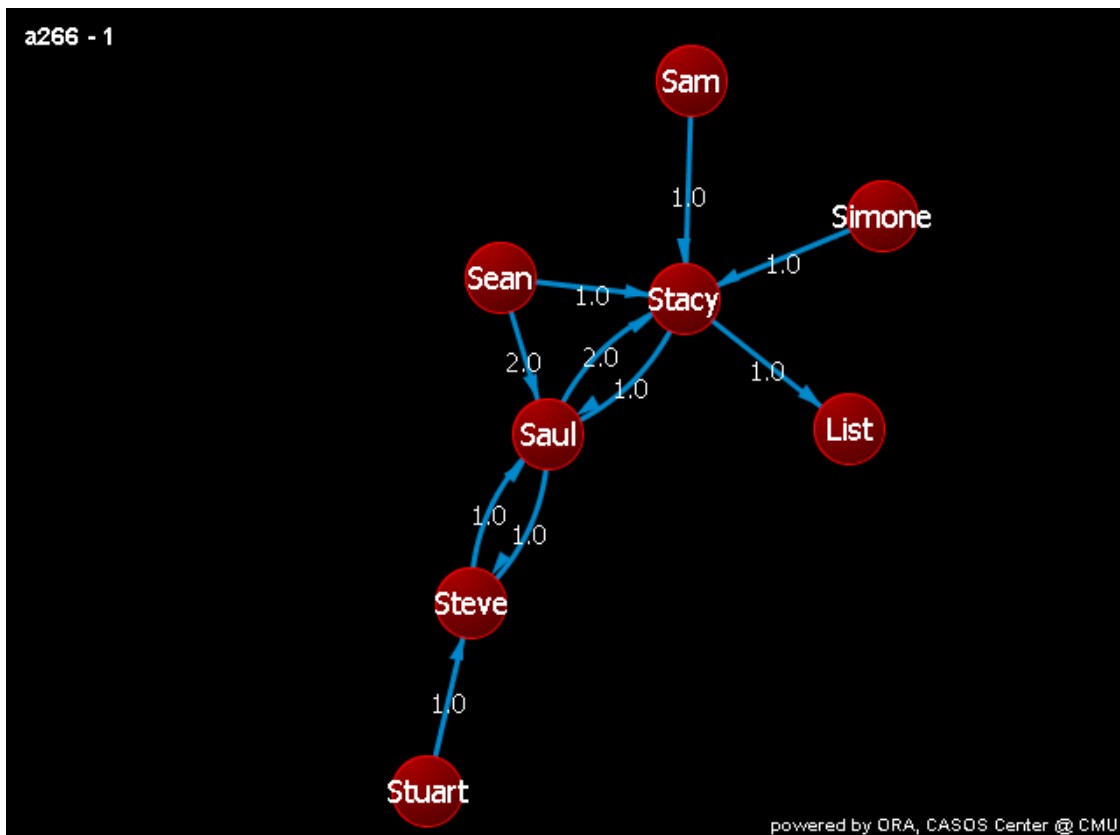
Figure 9 – Structure of a Thread (#266) in CIVIC.

Figure 9 illustrates how these variables come together in practice. The figure outlines the communication structure between participants in a thread from CIVIC (#266) that has a low SentGINI (0.26), a high ReplyGINI (0.65) and a low Reciprocity-Reply

(0.18). Again the numbers on the lines represent the number of emails between participants with the arrows signifying sender and recipient. By default each participant sends at least one email with three (Stacy, Sean and Saul) sending more than 1, all of which contributes to a low Sent GINI. Note that the majority of emails are received by only two participants (Stacy and Saul) contributing to a high ReplyGINI. Finally only two of the emails (those between Stacy and Saul and between Saul and Steve) are actually replied to, leading to a low Reciprocity-Reply value.

Following the results from table 30 above, the figure illustrates the structure of a typical thread from CIVIC. As one can imagine the relationships between these variables are not fixed and it is possible to have for example, a high Reciprocity-Reply value and a high ReplyGINI in the same thread. This would lead to similar situation in Figure 9 but would imply that reciprocity is concentrated even more on a few people in the thread. For example, Stacy and Saul would send and reply to several more emails to each other.

Another seldom scenario is a thread with a high Reciprocity-Reply and low SentGINI. This can occur for example, where there are very few participants in a thread with relatively many emails. In figure 10 below, only Jim and John are participants in a thread where Jim emails John following the latter's first email to the list. This leads to two subsequent replies from both John and Jim meaning the reciprocity-reply value is high (0.667). The SentGINI value is low; zero in fact because both participants have two emails each.
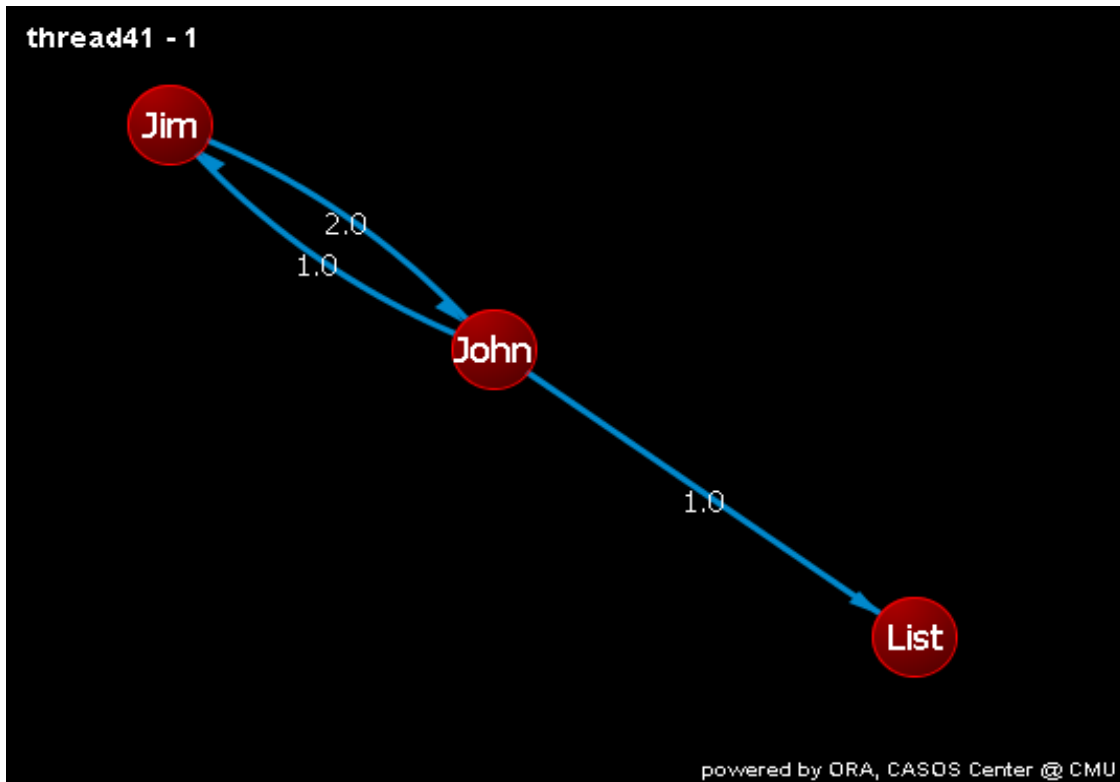
Figure 10 – Structure of a Thread (#41) in SCVP.

If one were to consider the deliberative ideal of equal participation, then having a low SentGINI, a low ReplyGINI and a high reciprocity value would be good. However, as the above the discussion highlights, these characteristics rarely occur together in the three sample lists. Given that the SentGINI and Reciprocity-Reply are positively correlated, it's typical to have many people sending a relatively similar number of emails to a thread with a low reciprocity value. While desirable from a deliberative point of view, an increase in reciprocity is associated with fewer people sender more emails to the list. This is does not imply that the number of perspectives in a discussion will be limited, but it suggests that some perspectives will be emphasized more than others. There are

exceptions to this pattern but they typically involve few participants sending several emails between themselves and such threads were not common in the three lists.

The final two hypotheses related to question two are concerned with the relationship between the distribution of emails that were sent and received in a thread and reciprocity:

2.4 Reciprocity increases as the distribution of emails received by participants in a conversation approaches parity.

2.5 Reciprocity increases as the distribution of emails sent by participants in a conversation approaches parity.

Based on the above evidence I would accept hypothesis 2.4. In all three lists there was a significant and negative correlation between Reciprocity-Reply and ReplyGINI. The correlation was particularly strong in SCVP possibly because more participants in that list were engaged in reciprocal email relationships with each other. The correlation coefficients between Reciprocity-Reply and SentGINI were also significant for all three lists. However in all cases the coefficient was positive, implying that I would have to reject hypothesis five. Although the hypothesized negative relationship between SentGINI and Reciprocity-Reply did exist, it was rare. Instead most threads with a high SentGINI also had a high Reciprocity-Reply. The implication being that the condition for equal participation in terms of sent emails becomes less observable as reciprocity increases.

6.4 Reciprocity and Other Forms of Engagement Among Participants

Reciprocity is the extent to which members in a conversation reply to each other's messages. This was operationalized by examining the patterns of sending and receiving emails between participants in a thread. Alternatively we can look for evidence of other ways in which participants engage each other in a conversation. This can be examined for example, by looking at the language that participants use to solicit responses or actions from their colleagues. Such language may or may not lead to a reply from other participants but they can be viewed as attempts by participants to engage others.

Specifically I focus on two categories questions and suggestions. Following the codebook in Appendix I, questions are requests by members for opinions, facts, information, etc. from others. By asking a question a member can potentially receive a reply from other members who answer them. Similarly suggestions include calls to actions from one member to another and could also potentially solicit a reply.

Table 31 – Summary Statistics for QuestionsR and SuggestionsR

List	Variable	Obs	Mean	Std. Dev.	Min	Max
CIVIC	Questionsr	285	0.06	0.07	0	0.5
	Suggestionsr	285	0.07	0.08	0	0.5
SCVP	Questionsr	137	0.03	0.06	0	0.33
	Suggestionsr	137	0.07	0.09	0	0.58
GCFI	Questionsr	97	0.05	0.06	0	0.25
	Suggestionsr	97	0.09	0.09	0	0.42

Table 31 presents the descriptive statistics for QuestionsR and SuggestionsR which is the proportions of questions and suggestions in a thread respectively. This represents a partial picture of how often participants attempt to solicit replies from others across all three lists. The mean values show that both questions and suggestions are

seldom occurrences. SCVP is the lowest for all three lists with questions on average accounting for 3% of the coded sentences in a thread and suggestions only 7%.

What types of threads are then associated with the occurrence of questions and suggestions. To start with we can check for correlations with the set of time-based variables used in the discussion on reciprocity. With regard to QuestionsR, the only significant correlation was with the age of a thread in GCFI (r=-0.2333, p<0.05), after controlling for the total number of emails. Thus as with reciprocity, the proportion of questions asked in a thread appears to decrease as the thread gets "older". This could also be a result of changes in membership over time.

There were also several significant correlations between the time-based variables and SuggestionsR. Again these were specific GCFI only. After controlling for the total number of emails there was a significant correlation between the time-span of a thread and SuggestionsR (r=0.175, p<0.1) and between the average delay between emails and SuggestionsR (r=0.173, p<0.1). Although at the 10% level, the correlations suggest that the proportion of suggestions made in GCFI tended to increase as the conversation got longer and more intense. Note that the results for the time-based variables and both QuestionsR and SuggestionsR were only significant in GCFI. There were no significant results for any of the lists with regard to the posting structure variables such as SentGINI ro ReplyGINI.

To go further then we can also refer to thread level variables such as topic to look at other characteristics that are associated with the use of questions and suggestions. Using a series of one-way ANOVA the mean value of QuestionR did not significantly

vary by the scope of a thread for any of the three lists. However, there were significant differences based on the topic of a thread for CIVIC ($p<0.01$) and GCFI ($p<0.1$).

In the case of CIVIC, the mean proportion of questions asked in threads that dealt with conference/events was 0.046 (or approximately 5%) higher than those threads with a different topic ($p<0.01$). Threads that discussed conference/events often started with an announcement of a conference typically either related to the ICT business sector and/or public sector. This would be followed by questions asking who would be attending, availability of post-event information/reports and inquiring about members' opinions on the theme of the meeting. In addition, these announcements were sometimes followed up by news about funding for person to attend these events. In some cases, questions were asked about the specific conditions of these funding opportunities. In most cases these threads consisted of information provision through questions and answers with little debate on related issues.

In GCFI the topic that created a difference in the mean proportion of questions asked in a thread was academic. Here the mean difference was 0.035 ($p<0.01$). These threads consisted of discussions on marine science issues and included the sharing of recent findings often with the use of photographs. The findings were often followed up by questions that sought to clarify some aspect of a member's research. Alternatively, some threads in this category would start with questions from a member on a specific aspect of their research. These threads did include debates among members about research that was presented. In some cases members would present their own findings to support or counter the original study or they would highlight relevant research from other regions in the Caribbean.

With regard to suggestions, one-way ANOVA showed that the mean proportion of suggestions in a thread varied by topic for CIVIC ($p<0.05$) and SCVP ($p<0.01$). In CIVIC, the relevant topic was commercial activity/investments. Threads that fell under this topic had a mean that was 0.06 lower than threads with other topics. Thus suggestions were less likely to be used in threads that dealt with commercial activity/investments. As mentioned in the previous chapter, this topic dealt primarily with the IT business and telecoms sector in the Caribbean with debates about the level of competitiveness in local markets. Note that this was also the same topic that had a higher mean proportion of reasoned arguments per thread than other topics. This does not necessarily imply that suggestions and reasoned arguments do no occur together in fact they are correlated in CIVIC ($r=0.58$; $p<0.01$). However, when considering thread topics, the means of both variables appear to move in opposite directions in threads that deal with commercial activity/investments.

In the previous discussion about reasoned arguments (Chapter Five) topic was not a significant variable in SCVP. However, in this case, two topics have significant differences in the mean proportion of suggestions in threads in SCVP: human rights and HIV/AIDS. Threads that dealt with these topics were less likely to have suggestions than thread with other topics. In the case of human rights the mean proportion of suggestions was 0.05 less than threads with other topics ($p<0.05$) and for HIV/AIDS the mean was 0.04 less ($p<0.01$). Unfortunately these results do not point to a topic where suggestions are more likely to be used. Threads that focused on HIV/AIDS or human rights issues often included discussions about legal and moral issues and it is possible that suggestions or actions on these issues were less likely.

These results point to how the unique characteristics of each list are relevant in understanding the relationship between engagement variables such as QuestionsR and SuggestionsR and the posting patterns in a list. In the first case, I looked at the role of the time-based variables. The results were only significant for GCFI and suggest that the age of a thread is relevant in understanding QuestionsR, while total time-span and the average delay between messages were significantly correlated with SuggestionsR in that list. Finally, as with ReasonsR, both QuestionsR and SuggestionsR varied by the topic of a thread for at least two out of three of the lists, pointing to the importance of context in deliberation.

6.5 Summary

As the second major element of deliberation, this chapter focused on reciprocity, how to assess it and what characteristics of thread level conversations it was most associated with. Several time-based variables were shown to be significantly correlated to both Reciprocity-Reply. Specifically, the total time span of a thread was significant in CIVIC and the age of the thread was significant in CIVIC and SCVP (both with a negative sign). This suggests that time-based variables were particularly relevant in understanding reciprocity in CIVIC. This is in contrast to GCFI where none of the time-based variables were significantly related to Reciprocity-Reply. Instead when we examine engagement between participants in other forms such as through the use of questions, then the age of a thread was significantly correlated to the proportion of questions in a thread in GCFI. In addition, the total time-span and average delay between messages were both correlated with the proportion of suggestions made in a thread in

GCFI. This points to the potential of using more text based analyses for understanding how participants engage each other online.

While the time-based variables highlight the unique differences among the lists, the structural variables ostensibly show more similarity as they were significantly correlated with the reciprocity variables for all three lists. The coefficients were all positive with relatively the same size for CIVIC and GCFI. However, in the case of SCVP the coefficients were different in size from the other two lists. Thus in terms of the patterns of sending and receiving emails between participants in a thread, SCVP appears to be somewhat different. For example, a high proportion of emails that received replies was associated with a more equal distribution of replies than on the other lists.

The final set of analyses looked at how the proportion of questions and suggestions made in a thread varied by a thread level variable such as topic. For QuestionsR, ANOVA results showed that topic was relevant in both CIVIC and GCFI. For suggestions, topic was relevant in both CIVIC and SCVP. Overall the topic of a thread is important is explaining the different mean proportion of questions and suggestions made for all three lists.

The above findings highlight some of the challenges to realizing the deliberative ideal in a conversation (thread). For example, the positive and strong relationship between SentGINI and Reciprocity-Reply shows that having most people saying something was associated with little reciprocity among participants. Furthermore, the t-tests for the proportion of suggestions made in a thread and specific topics in CIVIC showed that the same topic which could lead to more reasoned arguments being used on average would also lead to less suggestions being made on average in a thread. The first

example points to an inverse relationship between reciprocity and equal participation in terms of sending emails. The second example points to an inverse relationship between the use of reasoned arguments and a specific type engagement for a certain topic in CIVIC. Thus while the first result is more generalizable, the second indicates how the specific characteristics of conversations in a list can also create conditions that make deliberation difficult.

CHAPTER 7

REFLECTION IN CONVERSATIONS

7.1 Different Levels of Reflection

Reflection is the extent to which participants consider their own positions in light of the positions and criticisms of others. Reflection in this sense often requires that a participant's position is subjected to the criticism of others. By developing a critique of another point of view, the assumption is that the participant has to actively consider that view before critiquing it. Also, by receiving criticism to their views the participant is forced to possibly reconsider or reformulate their original position. Reflection then is a learning process through which the participant gains knowledge about the positions of others and how this compares to his or her views.

In this chapter I employ five different ways of capturing instances of reflection by participants. These are based primarily on the work of Graham & Witschge (2003). The first three are variations in the way counterarguments are structured as they offer perhaps the most explicit form of a critique. These variations are based on different ways to address the reasons offered in support of the initial argument in a debate. Thus, while counterarguments are themselves not predicated on the use of reasoned arguments they are responding to one. The fourth form of reflection is argument referencing or addressing another's argument point by point. Finally there is response incorporation of merging the position of another into one's own.

Graham & Witschge (2003) suggest that counterarguments are an effective way of assessing reflection in their proposal for research on online deliberation. These are

based on research on reasoning and argumentation by Kuhn (1991). They suggest that researchers should focus on the ways counterarguments address the original reasons offered by a participant in support of his/her argument in a conversation. For example, if we consider a conversation between two participants A and B, then they propose that researchers consider how participant B structures a counterargument to the original reasons proffered by participant A. Specifically there are three ways of forming a counterargument in this sense, each implying a progressively higher level of reflection. First, B articulates his or her alternative position without any specific reference to the original reason(s) offered by A. Second, B directly contradicts or challenges the reasoned arguments of A. Third, B not only challenges the reasoned arguments of A, but also provides his/her own alternative position.

The following excerpts from various threads across the three lists provide examples of each usage type.

Counter 1 – counterargument with no direct reference to reasons used in original argument (excerpts from thread #779, SCVP)

Original position:

This article is interesting because it points to a major reason drugs are illegal and it is not that they are unhealthily. No drugs are illegal because there is so much money in drugs that to legalise them would be the death knell to many legitimate businesses. Private prisons, security companies, companies that manufacture police and army equipment used in interdiction just to name a few that benefit from the illegality of substances (oh I forgot lawyers who defend drug barons)

Counterargument:

I am a Mental health professional and Substance Abuse Rehabilitation Specialist. As you are well aware the human suffering from addiction is a factor. Drugs are not tables or chairs. Someone uses it and a set of individual problems set in.

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Counter 2 – counterargument that addresses reasons used in original argument

(excerpts from thread #201, CIVIC)

Original position:

Many thanks for this. It serves to underline the statements I have made over the last few weeks that:
a) a tsunami early warning system in the caribbean would be a waste of tax payers money,
b) the 'early' warning would not arrive before a 'tsunami' did
c) it makes more sense to inform people (everybody) of what to do in the event of a natural catastrophe BEFORE it happens.

Counterargument:

However, I absolutely do not agree that a warning system for the Caribbean is a waste of money. Seismologists and earthquake hazard professionals have not given up on monitoring and warning just because there is no warning time. Even with locally generated tsunami in the Caribbean Basin, many potentially affected communities will have several to many tens of minutes of a warning window which is plenty in which to develop a means of widespread warning dissemination.

Counter 3 – counterargument with combination of Types 1 and 2 (excerpt from

thread #249, CIVIC)

Original position:

> > In order to increase international feedback, they have provided as much
> > information as possible in different world languages. The surveys,
> >however, are in English only due to limited resources.

A study about how well represented are Internet users "worldwide" is
ONLY in English. It seems a joke but it is not so, sadly.

Counterargument:

This isn't correct - the SURVEY online is only in English, but the site is
in several languages, and they are willing to accept input via email in the
same several languages. Thus I don't accept that it's a huge contradiction,
rather a statement of how people need to be adaptable to work around limited
resources and it seems to me that they have done far more than most people

do - even CIVIC! Also - it shows how expensive and difficult it is for translation services.

In the first example (Counter 1), the original argument focuses on the amount of money that is legally generated from illegal drugs. The counterargument does not directly address this but instead points out that human suffering is a consequence of drug abuse, implying that this is a reason for its illegality. This first type of counterargument involves minimal reflection as the assumption is that simply developing a new argument by itself implies a limited consideration of the reasoned arguments of others.

However, in the second example (Counter 2) the original argument suggests that a tsunami early warning system in the Caribbean would be a waste of money because there would not be enough time for people to react. The counterargument suggests that this reasoning is factually wrong as there is a sufficient warning window for people to react. In this case an argument that challenges or contradicts, implies greater reflection than Counter 1 because the assumption here is that one has to consider the original position significantly in order to challenge it.

Finally in the third type of counterargument (Counter 3), the original argument suggests that by using only English a proposed global survey of Internet use is a "joke". The counterargument points out that comments made to the survey website are not exclusively in English. In addition they argue that given limited resources the effort is good. This counterargument is in effect a combination of the previous two types. It suggests that the global study is a good effort by challenging the position of original (website is multilingual) and supporting their own position (good use of limited resources). Thus the implication is that the second participant has considered his or her

own position in light of the original argument. Note that the assumptions of what is implied by addressing the original reasoned argument in each type of counterargument are therefore important to this approach.

Another approach to gauging reflection is through what Graham & Witschge (2003) called argument referencing. This is essentially where a participant addresses the argument of another point by point. By doing this, the participant has to actively consider each aspect of their colleague's argument and would therefore be an indicator of reflection. Argument referencing is discussed in more detail later on in section 7.3 (Turn design). This type of response could be used in tandem with any of the above ways of reasoning in counterarguments.

Finally, a fifth way of assessing reflection is to identify where a participant incorporates the opinions or arguments of another into their own position. Including the positions of others again implies that one has to consider one's own position in comparison with those of others in a conversation. The following excerpt from thread #525 (GCFI) illustrates the concept of "incorporates the opinions or arguments of another". Here Matt argues that the use of casitas[10] is detrimental to the sustainability of the Caribbean spiny lobster because of how it makes juvenile lobsters in particular more vulnerable to fishermen and predators. Mick then argues that the use of lobster traps[11] can have similar consequences on lobster populations.

> Matt: *Irrespective of the fishery management implications of the use of casitas, around which most of this discussion has centered (and most of which I concur with), there are ecological reasons why the widespread use of casitas jeopardizes*

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[10] Casitas in this case refer to large containers (such as dumpsters, oil drums, or bathtubs) that are placed on the sea-bed to create artificial habitats for lobsters. As lobsters are attracted to such structures they are used by fishermen for easy harvesting.
[11] A lobster trap is small container with bait that is lowered by rope to the sea-bed and used to catch lobsters.

the long-term sustainability of Caribbean spiny lobster populations.
Foremost, are the consequences of un-natural aggregations, especially of juvenile
lobsters. Undersized lobsters are concentrated by casitas into fewer but larger
groups than is typical in nature, which indeed makes them more vulnerable to
fishermen, but that is not all. They also are more exposed to other predators
(many of which are also attracted to the structure provided by casitas), which is
particularly problematic for the smallest juveniles.

Mick: *I will like to follow up on Matt's remarks regarding the issue of casitas as*
artificial habitat for juvenile lobsters and the ecological consequences that this
fishing practice brings to the long term conservation of spiny lobsters
populations.
Let us not forget that traps also function as spiny lobster artificial habitats and
that the ecological consequences of using this type of fishing gear should be very
similar to those mentioned in Matt's remarks regarding casitas.

Table 32 below shows the mean value for each type of reflection:

counterarguments, argument referencing and the incorporation of the positions of others

for all three lists. The first four variables are thread level variables such as topic, scope,

etc. They do not therefore use the elliptical sentence as the unit of analysis and are

instead calculated based on the count of occurrences in each thread. Thus for example,

whenever a participant breaks down the argument of another and responds point by point

this is coded as one occurrence for argument-ref. The value of argument-ref for a thread

will be the total number of these occurrences. Alternatively, incorporating the positions

of others into one's own arguments (Incorp-position) uses the elliptical sentence as the

unit of analysis. Thus this variable represents the count of statements in a thread that are

coded as incorporating the positions of others.

Regardless of indicator, in reviewing the three lists there are in fact few threads

that exhibit reflection. Reflection measured through counterarguments is a seldom

occurrence and on average is less than one per thread for all three types. It is particularly

low when considering Counter 3 (combination) in CIVIC and in fact does not occur in

SCVP. It is also, on average, the lowest occurring type of counterargument in GCFI.

These results are similar for argument referencing and Incorp-position. In general there
are differences in the mean levels of reflection across all three lists.

Table 32 – Summary Statistics for Measures of Reflection

	Variable	Obs	Mean	Std. Dev.	Min	Max
CIVIC	counter1	285	0.09	0.49	0	6
	counter2	285	0.15	0.75	0	10
	counter3	285	0.03	0.25	0	3
	argument-ref	285	0.08	0.42	0	5
	Incorp-position	285	0.26	0.76	0	5
SCVP	counter1	137	0.01	0.12	0	1
	counter2	137	0.01	0.17	0	2
	counter3	137	0	0	0	0
	argument-ref	137	0	0	0	0
	Incorp-position	137	0.07	0.28	0	2
GCFI	counter1	97	0.04	0.19	0	1
	counter2	97	0.06	0.24	0	1
	counter3	97	0.03	0.17	0	1
	argument-ref	97	0.03	0.17	0	1
	Incorp-position	97	0.06	0.28	0	2

Perhaps one way of explaining these differences is to look at the conversation
techniques that participants employ in the course of their online interactions with each
other. These are more subtle than the explicit forum rules of each list and point to
strategies that participants use to establish order and to communicate effectively in a
given environment such as an online space. Identifying and understanding these
techniques is the focus of conversation analysis (CA) which entails a detailed inspection
of talk in interaction as described in Chapter Three (section 3.2). While we can infer
reflection based on the various indicators mentioned above, I argue that these

conversation techniques can influence reflection because they point to the ways that participants negotiate meaning in each list. In so doing they can help explain the extent to which participants understand, react to and use the arguments of others.

As discussed earlier, CA along with content analysis relies on the actual transcript (text) of a conversation but it also tries to identify strategies that participants employ during their dialogue rather than relying on a set of pre-determined categories. At the same time it goes beyond interview data because it examines the implicit conversation strategies that participants use in their dialogue with each other, which would be difficult for them to discuss or recall. Conversation analysis is actually novel in its application to deliberation research. Thus another contribution of this research is to show the potential for CA as a method for understanding reflection.

For example, a critical analytical construct used in CA is the turn or the part of the discourse that is attributed to one speaker. How turns are organized or understanding the rules that allow the transition from one speaker to another, is also an important issue for conversation analysts. One strategy is for the current speaker to identify the next. Although this is not the norm in face to face conversations it is used in email discussions. Selecting the next speaker (addressing the email to a specific person) is indicative of how relevant a particular email is to that speaker. In counterarguments this could also be indicative of how much consideration the participant has given to the arguments of the next speaker. Thus there might be a relationship between speaker selection and the type of counterargument used by a participant. This is a point that I explore in more detail below in the discussion on turn-taking.

In this chapter I examine the techniques participants employ in the course of establishing order and structure to their online communication experience and what implications these techniques have for reflection. I proceed by using analytical constructs that are common to most research in CA while focusing on conversation in an institutional setting (an email forum of an NGO). These constructs are based primarily on the works of Pomerantz & Fehr (1997), Heritage (2004) and ten Have (2007). While a comprehensive conversation analysis of selected threads on the three lists would be a very interesting exercise my primary concern in this chapter is understanding reflection as described above. As such I focus on those constructs that are more directly related to the process of reflection. Note that given the importance of speech, CA often involves very detailed transcriptions of discussions in order to capture the nuances of a conversation. With email the text of the conversation is already present and thus I do not employ the transcription protocols typical in CA.

7.2 Speaker Selection

Central to conversation analysis is the concept of sequence. That is speech is sequentially organized around units called turns. A turn is defined as the part of a conversation attributable a specific person and in this context, an email would be the equivalent of a turn. Strategies for turn-taking or transitioning from one speaker to the next include the current speaker selecting the next, a speaker self-selecting himself/herself, or the present speaker continuing to talk (Sacks, Schegloff, & Jefferson, 1974). All three are present in the online space but here I focus on the current speaker selecting the next, or identifying the recipient of an email, as this is more frequent. As

Negretti (1999) notes identifying the next speaker is not typical in a face to face conversation however in her study on online chatrooms she found that this was a necessary technique. Similarly in an email forum one can see how specifying the recipient of an email would be useful where the content of the email is directly relevant to that person. When it comes to the use of counterarguments this is also important. In a thread with multiple speakers, participants can use speaker selection to identify which speaker their counterargument addresses.

Speaker selection can take two forms. For example, the author of an email can specify the individual recipient (e.g., "Dear John") of the message. Alternatively, in an email list where everyone is the recipient, emails can be directed towards the group as a whole rather than to a specific participant (e.g., "Dear all,"). In some cases speaker selection is not required because the recipient is obvious based on the content of the email, quoting the text of the original email and the use of pronoun you. This would be similar to a face to face conversation between two people and could be the case for emails that are directed to an individual or the group as a whole. In terms of counterarguments, both forms of speaker selection would be applicable. For example, the author of an email might respond to an argument by specifying the recipient of the email as an individual or as the group. Not selecting a speaker would also be applicable where authors feel that the content of the email is sufficient to identify the recipient.

In sum there are four options available to the author of an email with regard to identifying the recipient. Two of these involve speaker selection (individual or group). The other two also address the individual or group but the recipient is implied. These are summarized in Figure 11 with illustrations using a thread from GCFI.

1	Subject: Cayman Islands Lionfish Update
2	From: Ben
3	Date:
4	**Hi all,**
5	As of 30th April 2009 we have caught 90 lionfish!
6	This includes the 2 caught in Cayman Brac and Little Cayman in 2008 and 3 live specimens.
7	They have been caught in water ranging from 3' down to 110', on all sides of the islands, and in all habitats.
8	Ben
9	
10	Subject: Cayman Islands Lionfish Update
11	From: Brian
12	Date:
13	Thinking back to the Diadema mass mortality of 1983-84 and the opportunities that were missed because of poor communications across the region, now would be a very good time to use our superb and ubiquitous communications to set up a coordinated observation network to see what is the impact of lionfish on populations of small reef fishes.
14	It appears that this idea could be trumped by well-meaning but ultimately futile attempts to remove them.
15	Who doubts that they are here to stay?
16	It would be best we anticipate the future of Caribbean reefs with lionfish and try to get some data to help get our minds around this.
17	Cheers
18	
19	Subject: Cayman Islands Lionfish Update
20	From: Boris
21	Date:
22	**Brian** -- I agree, and I thought that someone at NOAA or RSMAS announced some time back that there was an established reporting network?
23	Boris
24	
25	Subject: Cayman Islands Lionfish Update
26	From: Brandon
27	Date:
28	**Dear Colleagues**, instead of developing a protocol to assess impact of lionfish on small fish populations, It seems to me that we should invest some energy into developing a protocol to efficiently eradicate it ASAP, so we do not have to assess their impact in small fish populations.
29	B

Figure 11 – Examples of Speaker Selection from Thread #171, GCFI.

30	
31	Subject: Cayman Islands Lionfish Update
32	From: Barrett
33	Date:
34	I agree with Brian that the creature is probably here to stay.
35	However, people who have researched its life-history, natural distribution and ecology could tell us if there is some weak point at which it might be susceptible for control, or could enhance attempts to capture them.
36	But it's hard to imagine that divers with nets and spears can do the job: not enough divers and too many less accessible reefs.
37	Barrett
38	
39	Subject: Cayman Islands Lionfish Update
40	From: Betty
41	Date:
42	**Dear colleagues,**
43	I agree, this is our strategy and message.
44	Wherever you locate them kill them.
45	We are planning a strategy to eradicate it from our waters.
46	B
47	
48	Subject: Cayman Islands Lionfish Update
49	From: Bellamy
50	Date:
51	**Dear GCFI,**
52	Is there any way to get a summary of lionfish emails sent over the last year??
53	I have seen many, but, alas, have saved few.
54	I am trying to convince a UF administrator that lionfish is indeed one of the most important marine invasive species issues in the region.
55	Would help tremendously.
56	Thanks in advance.
57	Bellamy
58	
59	Subject: Cayman Islands Lionfish Update
60	From: Benedict
61	Date: Sun May 03 21:23:54 2009 EDT
62	You can access all the GCFINet archives at
63	http://listserv.gcfi.org/archives/GCFINET.html. There is a search feature where you could search for "lionfish" and pull up all the previous posts.
64	Benedict

Figure 11 continued

This thread entails a conversation about dealing with lionfish, a recent man-made introduction to the region and a predator species which is a threat to other fish native to the Caribbean Sea. From this thread examples of speaker selection where the group is specified include lines 4, 28, 42 and 51. All of these emails start by an address to the group (all, colleagues, GCFI, etc.). An example of selecting individuals as the speaker is in line 22. Brian, the author of previous email (lines 10-17), is identified as the recipient. Note that in line 34, Jake is also mentioned but not as the recipient of the email. Instead that email from Barrett (lines 31-37) is an example where no speaker is selected but the recipient (the group) is implied by the language. Finally, the last email by Benedict (lines 59-64) is an example where no speaker is selected but an individual recipient is implied since the author uses "you" to refer to the author of the previous email (Bellamy).

The above thread does not include examples of counterarguments however. When looking at emails with counterarguments there is a pattern in speaker selection and the type of counterargument used. Specifically, speaker selection appears to be less associated with counterarguments that don't specifically address the reasons behind the original argument (counter 1) and more associated with counterarguments that include critiques of the original argument (counter 2) and support for their own alternative arguments (counter 3). There are fewer instances of speaker selection in cases of counter 1 possibly because a response might not be expected. Rather the participant simply wants to voice their opposition to an argument by presenting their own evidence. Alternatively, speaker selection is more common in the cases of counter 2 and 3 because there is greater consideration of the original arguments in these cases and so the author of the email is more inclined to identify who they are writing to. These patterns were most evident in

CIVIC and GCFI and overall they suggest that speaker selection appears to be associated with higher forms of reflection (when viewed in terms of counterarguments).

While this illustrates how speaker selection is associated with counterarguments, a more useful analysis involves not just if speaker selection occurs but the type – individual or group. When looking at instances of speaker selection across all three lists it appears that identifying an individual as the recipient of an email is more common in where counter 2 is present. Specifying the group as the recipient is more common where counter 3 is present. This is interesting because in general one might expect a greater consideration of another person's position to result in a counterargument that would most likely be explicitly directed at that person. Thus we would also expect emails with both counter 2 and counter 3 to include speaker selection that is aimed at the individual. However in both CIVIC and GCFI instances of counter 3 were often directed at the group. Recall that there were no cases of counter 3 in SCVP.

One possible explanation for a focus on the group in cases of counter 3 is that by definition it includes counter 1 (does not address the reasoned arguments of the original author) and that this provides the motivation for a participant to select the group as the recipient. As noted above, emails with counter 1 often do not include speaker selection and instead the recipient is implied. A review of emails with counter 1 indicate that these types of counterarguments are often addressed to the wider group rather than to a specific individual, albeit implicitly. Since by definition counter 1 includes an alternative or new position that does not address the reasons of the original argument this might spur the author to direct the email to the group as a whole. Further, as counter 3 consists of both counter 1 and counter 2, its possible that the same logic is employed by participants in

that case. As a result, counter 3 also tends to be directed towards the group. This implies that the motivation to specify an individual recipient (which is the case in counter 2) is outweighed by the motivation to specify the group as the recipient (which is the case in counter 1) when looking at the combined case of counter 3.

One result of a relationship between speaker selection and counterarguments is the impact on reciprocity. Based on the type of counterargument used, a participant will address an individual or the group. This could also indirectly influence Reciprocity-Reply. If we assume that people are more likely to reply to an email that is addressed to them, then the author of the original argument might not necessarily reply to an email addressed to the group.

7.3 Turn Design

As noted above, a turn is defined as the part of a conversation attributable a specific person and in this context, a turn equates to an email. Turn design refers to the methods used by a speaker to shape the format of their turn. In a verbal conversation there are several strategies that a participant can use in turn design. These include setting the tone of the turn (e.g., using either formal and informal greetings), customizing the turn based on the their perception of the recipient of the next turn or suggesting what a preferred action is among a set of actions (e.g., by positively describing one option and negatively describing another) (ten Have, 2007).

In terms of the online space examined here, I argue that turn design is applicable in that participants will actively position their responses in different locations within the text of an email. For example, participants typically respond to another person by writing

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above the original email as this is the often default position in most email clients. Alternatively participants may write their response below that of the original email. Of particular interest here is when participants insert their response at various locations in the text of the original in order to address specific points in another person's argument. This latter strategy is referred to as replying inline and is perhaps most relevant when discussion reflection.

Replying inline presents an opportunity for the participant to consider separate points of another person's argument and is therefore analogous to argument referencing as described above. It is a strategy that can facilitate reflection particularly where the original argument is multi-dimensional or complex. Figure 15 (in Appendix III) contains a thread with an example of replying inline. This particular thread has 29 emails and is quite long. Thus figure 15 only contains relevant excerpts (8 emails) from that thread. Also, in order to highlight replying inline I did not number each line in the thread as in previous figures; rather each email is numbered.

The discussion in the thread revolves around the reported entrance of Digicel (an Irish owned telecommunications company that is dominant in many Caribbean markets) into the Haitian market. The excerpts in figure 15 present the exchange of two participants in the thread Gerry and George. They discuss the relative merits and degrees of exclusive local (i.e. Caribbean) ownership of telecommunications companies and infrastructure. As is typical, in each email the author places their reply above the original quoted text. This is the case in emails 1 to 4. In email 5, George responds to Gerry's multi-faceted argument by replying inline. While this is an example of replying inline

(and argument referencing) note that in many of the responses, there are expressions of agreement, disagreement, opinion and also the use of reasoned arguments.

A further issue is whether shaping a turn by replying inline leads to subsequent emails also being shaped that way. In the example presented in figure 15, George starts replying inline in email 5, Gerry then typically places his reply above George's comments in email 6. In email 7, George again replies inline and finally in email 8, Gerry also replies inline. Initially, then Gerry does not follow George's lead in replying inline. In fact, most emails that are replied inline are not followed by subsequent emails with a similar design. Although this example is drawn from CIVIC, a similar pattern exists in the other two lists as well.

Overall replying inline is rare in threads across the three lists (table 32). The typical action is to simply respond to the overall theme of another participant's argument. This was the case in many instances where someone presented a long and detailed argument. Of course one could respond to such an argument without replying inline. Take email 7 in figure 15 for example, Gerry replies to George's previous long email which was designed as a inline reply in the normal fashion (response above quoted text). One reason for not replying inline could be that it requires more time and effort to address every point in another person's argument. George himself implies this when he says "I could go point by point, but instead of a long email I will simply say this…," in another thread in CIVIC (thread #232). In that case George was replying inline to most emails up to that point.

When replying inline does occur, it seems to be the same participants that are employing this strategy over time. In the case of CIVIC this refers to a handful of

participants including George and Gerry mentioned in figure 15. Again having only a few

participants replying inline is also the case in GCFI and SCVP. Also of note is the

observation that these small groups are also more likely to reply to each other inline. This

was the case in figure 15 between George and Gerry and also in the other lists. These

small groups are also part of the minority in each list that is the most active in terms of

emails sent. Thus not only is replying inline rare it is only used by a small group of active

participants implying that it could be a tool employed by the more experienced and

prolific participants in each list.

7.4 Preference Organization

The previous sections looked at strategies used by participants that are related to

the use of counterarguments and argument referencing. Another form of reflection that

was mentioned earlier includes a response which incorporates the opinions/arguments of

others. In examining the various techniques participants employ in online conversations,

preference organization can help explain how incorporating responses occur.

Where a set of alternative actions are available to the speaker, one may be

preferred and the other dispreferred. Preference organization refers to a particular form of

turn design where the speaker indicates whether or not a specific action is preferred or

not. Preference in this case does not mean choice but rather the degree of simplicity in the

language used to explain a choice. That is, the design for turns with preferred actions are

usually structurally simple, direct and often provided without any explanation.

Dispreferred actions are the opposite and often contain delays, are longer and include the

reasons to support a choice (Pomerantz, 1984). Examples of preferred actions include

agreement and acceptance while dispreferred actions include rejection or disagreement (ten Have, 2007).

Another example can illustrate these differences. In figure 12, a proposal is put forward to the group by Simon asking permission to represent CIVIC at a regional meeting in Grenada. Almost all participants express agreement. As a preferred action only one of those in agreement offers a reason for doing so, Sharon in line 93. There is also one disagreement and this is followed by a reason – Sylvester in line 84. Thus reasons often follow dispreferred actions such as disagreements and are seldom associated with preferred actions such as agreements.

1	Subject: [icacaribbean] CTU harmonisation meeting/funding
2	From: Simon
3	Date:
4	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
5	Hello fellow CIVICers,
6	The Caribbean Telecommunications Union (CTU) is organising a meeting in Grenada from December 15th to 16th to discuss plans for its regional spectrum harmonisation project.
7	The ITU is providing sponsorship for one participant from CIVIC.
8	This is an area relavant to my interests in telecoms policy and the likely work of the proposed e-Government Channel.
9	I am consequently inviting approval to represent CIVIC at this event.
10	Simon
11	
12	Subject: [icacaribbean] RE: CTU harmonisation meeting/funding
13	From: Sam
14	Date:
15	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
16	I wish to support the approval of Simon representing CIVIC at the CTU meeting in Grenada.

Figure 12 – Thread (#297) from CIVIC Illustrating the use of Reasoned Arguments in a Decision-making Thread

17	Sam
18	
19	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
20	From: Sean
21	Date
22	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
23	Simon,
24	You have my support....I'm also copying Sanford directly.
25	Regards
26	Sean
27	
28	Subject: [icacaribbean] RE: CTU harmonisation meeting/funding
29	From: Sandra
30	Date:
31	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
32	Agreed Simon.
33	Sandra
34	
35	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
36	From: Sanford
37	Date:
38	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
39	Hi Simon,
40	you have my initial support.
41	but to be a formal mandate please check http://www.carisnet.org/civic/civic-eng.html#7
42	best
43	Sanford
44	
45	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
46	From: Sidney
47	Date
48	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
49	You have my Support
50	

Figure 12 continued

51	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
52	From: Sheila
53	Date:
54	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
55	You certainly have my support too Simon, but wondered whether there shouldn't be an agreed CIVIC 'position' as regards this subject, that you will represent?
56	Sheila
57	
58	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
59	From: Sandy
60	Date:
61	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
62	You have my support- hope you had a safe trip back home
63	Sandy
64	
65	Subject: [icacaribbean] RE: CTU harmonisation meeting/funding
66	From: Sara
67	Date:
68	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
69	I wish to lend my support to Simon for representation of CIVIC at the CTU meeting.
70	Sara.
71	
72	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
73	From: Sabrina
74	Date:
75	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
76	You have my support too, but I also agree with Sheila that there should be some consensus on the position of CIVIC
77	Sabrina
78	
79	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
80	From: Sylvester
81	Date:
82	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>

Figure 12 continued

83	I would like to be contrariety, and argue that Simon should *not* represent CIVIC.
84	**I argue that Simon has not been involved with any serious Telecom policy work, but has simply been an ignored voice on the sidelines...**
85	With regards.
86	- Sylvester
87	
88	Subject: [icacaribbean] Re: CTU harmonisation meeting/funding
89	From: Sharon
90	Date:
91	To: "Caribbean ICT Stakeholders Virtual Community CIVIC" <icacaribbean@dgroups.idrc.ca>
92	I support Simon request.
93	**I believe his participation will be very useful to CIVIC.**
94	Sharon

Figure 12 continued

This pattern is also evident when looking at the various forms of reflection. Counterarguments by definition are based on disagreements and the previous analysis looked at ways in which they were structured. Incorporating the response of others however does not necessarily involve disagreement. In fact in most cases, response incorporation seems to follow from preferred responses – that is there is an agreement with the original speaker. Take for example, the excerpt (from thread #525, GCFI) used to illustrate response incorporation above. This is repeated here in figure 13.

Figure 13 – Example of Response Incorporation from Thread #525, GCFI.

1	Mick: I will like to follow up on Matt's remarks regarding the issue of casitas
2	as artificial habitat for juvenile lobsters and the ecological consequences that
3	this fishing practice brings to the long term conservation of spiny lobsters
4	Populations.
5	Let us not forget that traps also function as spiny lobster artificial habitats and
6	that the ecological consequences of using this type of fishing gear should be
7	similar to those mentioned in Matt's remarks regarding casitas.

In line 7, Mick implicitly agrees with Matt that the use of "casitas" is a threat to the sustainability of the Caribbean spiny lobster. In some cases, this agreement is more explicit. An extract from a thread (#239, CIVIC) illustrates this point in figure 14. The thread starts when a member posts a newspaper article reporting comments made the head of major telecoms company in the region regarding the role of government in the industry; particularly that less government involvement is better. Todd agrees with this approach but suggest that there is a role for government oversight (line 8) to control overpricing. Terry then follows up on this and agrees with what Todd has said but also adds the government involvement can be kept to a minimum as a more open market can also address overpricing (lines 16-17).

1	Subject: [icacaribbean] Re: Digicel CEO tells governments to "stay away from business"
2	From: Todd
3	Date:
4	To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org>
5	Interesting, very interesting I would say the same thing to be honest tired of how we been under the rule of thumb.
6	We need to allow a more freer movement of all services across our region and get away from this I'm one and you are this one.
7	As soon as we discover that is as soon as we start seeing how to change our mantra socially.
8	But I do err on the side of caution as well as there is a need for good policing to ensure that the end user (customers) are not driven from markets for goods and services due to overpricing for business pockets.
9	I'm not saying that business cannot make money it is how they ransom customers that need to change, as well as to ensure that customers are made aware the need to develop regionally consumer group to be involved in such negotiations as well .
10	T
11	

Figure 14 – Example of Response Incorporation from Thread #239, CIVIC.

12	Subject: [icacaribbean] Re: Digicel CEO tells governments to "stay away from business"
13	From: Terry
14	Date:
15	To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org>
16	Agreed.
17	I would add that the policing needs to be kept to a minimum and I believe that competition due to the lowered entry barriers will see more businesses and further effectively reduce the incentives for excessive pricing.
18	Terry

Figure 14 continued

Together the various forms of counterarguments and response incorporation show how reflection can occur in cases where the respondent can either be in agreement or disagreement with the original argument. This implies that the position a participant takes with regard to an argument can influence the type of reflection that is exhibited by that participant. Specifically where reflection does occur, agreements tend to lead to response incorporation.

7.5 Promoting Reflection – Thoughts from the Participants Themselves

The discussion thus far has looked the ways in which conversation techniques such as speaker selection, preference organization and turn design influence difference types of reflection. What's noteworthy is that the participant themselves also point to issues that can impact reflection. In this section I will highlight two of these issues. I will therefore not apply conversation techniques to what the participants report but instead use their own observations towards understanding the mechanisms of reflection in the three lists.

7.5.1 Referencing the Past

Unlike an ordinary conversation, participants have the option to actually look back on past conversations as all interaction is represented by texts. This can be a useful tool for a participant to assess previous arguments or even the evolution of arguments within the group. In this way, referencing the past can promote reflection particularly where similar issues are discussed frequently. For example, in thread from CIVIC, one participant (Julian) corrects another (Jake) for misinterpreting their position. In this case they were debating the organizational structure that CIVIC should take, a discussion that has been ongoing for some time as Julian points out.

> *Jake,*
> *You are so wrong about my suggestion and I would advise you to go back on the threads and see my contribution to this forum over the near seven years I have been here. I have advocated a creative approach to the matter of an executive and always resisted a traditional approach and I am not about to repeat myself.*
> *Julian* (from CIVIC thread 294)

However, evidence that participants access the archives or actively review previous emails is rare. In some cases, participants are unaware of the availability of an archive. In a previous example (Figure 14 – Examples of speaker selection from thread #171, GCFI), Benedict points out to another participant that they can access the email archives of the list to look back at emails on a specific topic (lines 62-63). In general, most people don't appear to use the archives. For example, one participant from CIVIC noted:

> *"In my view, over the last two years, we have lost a lot of the threads of discussions and often, the gems get lost because not many people go searching back on email archives to find information."* (quote from CIVIC thread 293)

Recall that the archives for SCVP and GCFI are public while that of CIVIC is private and that the status of the CIVIC archive was a point of contention among some members. In fact, in an interview with a member of CIVIC who preferred a public archive they argued that their attempts to look back on previous or current debates was hindered because they had to log in each time to check the archives. Also it does not have an effective search feature unlike the GCFI archive (line 63, figure 14).

The implication then is that participants' reflection is limited to the present and that looking back on debates in the past is a seldom process. Note that the above quotes are primarily drawn from CIVIC. Indeed participants on the other two lists rarely brought up similar issues because they were not as concerned with looking back at previous debates. This is in turn was probably because there were few if any reoccurring discussions that covered the same topic.

7.5.2   Asynchronous Structure of Communication

Another issue relates to the overall structure of communication on the lists. Specifically, email communication is asynchronous or peri-synchronous at best. The latter behavior refers to the sending and receiving of emails at a near synchronous pattern where there is an expectation of an immediate response. Peri-synchronous patterns are rare on all three lists and in general this is more common in an office environment (Tyler & Tang, 2003).

The implications of asynchronicity are twofold. First, a delay between turns can be advantageous for reflection in that the participant can take some time to consider the arguments of others, research and develop their own arguments. Research in this case can

even include reviewing previous emails, checking the archives or looking at external sources of information.

Second, asynchronous communications coupled with a large group of participants can lead to multiple and parallel conversations. To quote another participant from CIVIC:

> *"I am replying to John's message because it seems to be the most recent. I believe that is a contributing problem - the messages are plaited together so that a given response may be ignorant of several other things that have happened in between (time as logic ceases to exist)",* (quote from thread #299, CIVIC)

Thus while there is a delay in communication between two participants several other people could have contributed to the same thread or started parallel threads. In the above, the participant notes the difficulty in keeping track of a single conversation where there are multiple participants. This is relevant for example when the original position is modified and would require a change in counterarguments as well. However, the impact on reflection can extend to beyond just one thread.

In everyday speech, a sequence of turns is relatively straightforward to follow even among a group of people. However in an online space this process becomes more complicated as speakers can simultaneously contribute to different threads at the same time (Negretti, 1999). This could make it difficult for participants to adequately reflect on the arguments of others when they are participating in several threads or where several threads are active at once. The preponderance of simultaneous threads is a function of the list and would include such factors as the number of participants and the level of traffic on the list. In each of the three lists, the daily average for number of active threads was less than one (it was highest in CIVIC). However, in many cases the maximum number of threads active on a given day was five for CIVIC and SCVP and three for GCFI. Thus

the impact of parallel threads on reflection depends on characteristics of a list and will vary from day to day.

7.6 Summary

Reflection is a key part of the deliberative process but is often the subject of limited research in online deliberation studies given the complexity of this variable. In this chapter I began by looking at several ways of operationalizing reflection; namely, through counterarguments, argument referencing and response incorporation. Following Graham & Witschge (2003) I specified three types of counterarguments which responded to the reasoned arguments of the initial position in a debate in different ways; each implying different levels of reflection. I then employed some of the tools of conversation analysis to gain a more micro-level understanding of factors in a conversation that could influence reflection.

Conversation analysis (CA) seeks to identify and explain the various techniques participants use to create structure and order in a conversation. I argued that this is relevant to understanding reflection because these techniques influence how participants react to and use the arguments of others. Although a full blown conversation analysis is often done on selected conversations, I only employ a few of the analytical tools of CA in this chapter as my focus here is on reflection. As such this chapter might be described as "CA inspired" according to Wooffitt (2005).

The results show how the conversation techniques employed by participants are relevant to their reflective experiences. For example, whether or not speaker selection occurs and the way in which it occurs is related to the type of counterargument a

participant might employ. This then has implications for subsequent reciprocal emails between participants. Turns can be designed in such a way that the participant replies inline to the arguments of another, thereby engaging in argument referencing. However, it is unlikely that respondents follow-up on this design in their emails. Furthermore, typically it is a subset of the small vocal minority in each list that replies inline to emails. Finally an analysis of preference organization among the lists shows that whether a participant agrees or disagrees with the original argument influences their mode of reflection.

By looking at the observations of the participants themselves I pointed to two challenges they face when engaging in reflection. First there is the issue of referencing the past which can promote reflection on previous but relevant arguments to a current debate, but is a difficult to do because of the rules of the list or because it simply requires too much effort. Second, there is the asynchronous nature of email communication which on one hand can facilitate reflection but on the other hand can create conditions where the current thread evolves without a participant's knowledge or where multiple threads are simultaneously active.

The results identified a few factors that influence reflection. For example, whether an agreement or disagreement was involved or how often a participant posts to a list. In addition, they also point to some of the challenges in promoting more reflection on a list. These include the effort to reply inline, reviewing email archives of previous discussions or the nature of asynchronous communication itself. These are issues that can be addressed at the design level of an email forum. However, combining this with efforts to

improve deliberation as a whole could be more challenging. This is an issue which I take

up in the next chapter.

CHAPTER 8

DELIBERATION AS A WHOLE AND CONSIDERATIONS FOR

POLICY

8.1 Summary of Findings for Each List

Thus far I have looked at specific aspects of the deliberative process. In this chapter I will attempt to relate these results to broader policy and design considerations that emanate from the discussion in previous chapters. In order to do this I will assemble the numerous micro-level findings from each chapter into a macro-level story. In the first instance I will return to each of the lists and look at of the findings from their perspective. After looking at these separate cases it will be then be useful at that point to examine the implications for deliberation as a whole. In so doing one is better placed to discuss the policy implications of these results as well. A review of deliberation within each list also allows me to generate a summary of the main results.

8.1.1   GCFI

The GCFI list is the oldest and has the largest membership base of the three lists (see Table 6 below, restated here for the reader's benefit). In addition, the membership is much larger than the other lists although almost half are from the US. Some other characteristics of note are that the average number of emails per thread is 4.34 and the average number of participants per thread is 3.97. These place the GCFI list in between the other two lists in terms of the average number of participants and emails in each thread. It also has the largest proportion of one-off emails (i.e., emails that do not fall into a thread).

Table 6 – Basic Characteristics for Selected Email Groups

Group	Active since	Total Emails	% of emails in threads	Members	Archive
CIVIC	2002	9713	67	441	Private
GCFI	1999	1587	35	900 (moderator estimate)	Public
SCVP	2005	1396	49	39	Public

The mean proportion of reasoned arguments used in thread in GCFI was the lowest among all three lists. One of the main assertions of this dissertation is that certain characteristics of each list are relevant in understanding key aspects of deliberation. This was the case even where aspects of deliberation such as the use of reasoned arguments were low. Thus characteristics such as the distribution of members based on nationality in a thread are associated with the use of reasoned arguments in this list. The other form of diversity that had a significant correlation with the use of reasoned arguments was occupational. In fact the correlation coefficient in this case was the highest among the two lists where this relationship was significant. This suggests that in GCFI, occupational diversity appears to be more important in understanding the use of reasoned arguments than in the other lists.

Although GCFI had the highest mean proportion of narratives per thread among all three lists, narratives were not significant alternatives to reasoned arguments in terms of correlations with diversity. Other statistically significant factors include the topic and scope of the thread. In fact GCFI was the only list where both topic and scope were relevant, pointing to the importance of the context of the discussion in that list. Finally with regard to the use of reasoned arguments, the presence of the moderator was less

significant than in CIVIC. This is possibly the result of a moderator that was the least active across the three lists and preferred to play a minimal role even when he was active.

In GCFI, reciprocity was particularly low when compared to the other two lists. The relationship between reciprocity and time-based thread level variables was not significant, unlike in the other two lists. Perhaps more relevant than time in GCFI were structural factors such as the distribution of emails sent and received in a thread. As with the other two lists, there was a positive correlation between reciprocity and the distribution of emails sent by participants in a thread and a negative correlation between reciprocity and the distribution of emails received. The implication is that as reciprocity in a thread increases, more participants are receiving similar numbers of emails but fewer participants are sending most of the emails.

The other set of analyses looking at engagement between participants focuses on the proportion of questions and suggestions made in a thread. The only time-based or structural variable that was associated with the proportion of questions asked in a thread was the age of a thread. This is in contrast to the non-significant relationships between reciprocity and the time-variables in this list. The other relevant variable in explaining the proportion of questions asked was the topic of the thread as was the case with reasoned arguments. In terms of the proportion of suggestions made in a thread, both the average delay between messages and total time-span of a thread were significant, again pointing to the importance of time in understanding engagement in this list.

In GCFI, all forms of reflection including the various types of counterarguments exist. This list had the second highest level of mean observations of all reflection variables after CIVIC, with the exception of response incorporation. I reviewed the three

major structuring strategies employed by participants in the course of a conversation and attempted to relate them to forms of reflection. Speaker selection appears to be associated with more complex form of counterarguments, which are indicative of higher forms of reflection. Turn design in terms of inline replies are also a feature of some emails in GCFI, thus pointing to the use of argument referencing. However, this appears limited to the most active participants in the list. Preference organization in GCFI was similar to other lists in that both preferred and dispreferred actions were associated with different types of reflection.

Overall GCFI is the oldest of the three lists but with the lowest proportion of emails that fall into a thread. One unique feature of GCFI is its membership which although it is spread across as almost as many countries as the other lists, its diversity in terms of occupation appears to have a stronger relationship with the use of reasoned arguments than on the other lists. Another important factor appears to be the context of a discussion as indicated by the significance of topic and scope. The relationship between reciprocity and other key variables was not particularly unique in GCFI and was comparable to CIVIC in some cases and SCVP in others. Similarly the patterns in the use of various forms of reflection and different conversation techniques were comparable to other lists particularly CIVIC. Thus the dimension of deliberation with which the characteristics of GCFI appear to have more unique relationships is in the use of reasoned arguments,. However GCFI has the lowest average number of reasoned arguments per thread. This was also the case for reciprocity, although reflection in GCFI fell between the other two lists.

8.1.2   CIVIC

The CIVIC list is the most active of all three lists based on the total population of emails and the proportion of these that fall into threads (Table 6). It also has on average more participants (4.03) and emails (6.17) in a thread than the other two lists. Of note is that access to its message archive is limited to members and not the public. Also unlike the other two lists, there is no parallel organization that exists along with the list. Thus there are more threads with organizational related topics in CIVIC than on the other lists.

The mean proportion of reasoned arguments used in a thread was highest in CIVIC. As with GCFI, there was a positive correlation between the proportion of reasoned arguments in a thread and the level of diversity in terms of nationality. Country diversity was particularly important in CIVIC as the difference between the mean proportion of reasoned arguments in a thread with some country diversity and the mean proportion of reasoned arguments stated in threads with no diversity was highest in this list. This point was also supported by the comments of participants gathered in the interviews. After controlling for the total number of emails in a thread, occupational diversity was not significant and in fact the coefficient was the significantly smaller than the two other lists.

The use of narratives was most common in CIVIC although it did not have on average the highest proportion of narrative statements in a thread. In this case country diversity was not significantly correlated with the proportion of narratives in a thread as were the other two lists. Unlike GCFI, the moderator was more active in threads in the list, although this was less so than that of SCVP. Furthermore, the difference between the proportion of reasoned arguments in a thread where there was some moderator activity as

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opposed to no activity was most significant in CIVIC. Finally, the topic variable was also

significant in explaining differences in the proportion of reasoned arguments used across

threads while scope was not significant.

Reciprocity in CIVIC was almost as high as in SCVP, which had the highest

average levels overall. Both time-based and structural variables were significantly

correlated to reciprocity in CIVIC. Two out of three of the time-based variables (age of

thread and total time span of thread) were relevant when considering reciprocity. Thus,

more than in the other lists, time was associated with reciprocity in CIVIC. The posting

structure of threads – emails sent and received – had a similar relationship to reciprocity

in CIVIC as in the other two lists, particularly that of GCFI. Thread topic was also

relevant in understanding both the proportion of questions asked and suggestions made in

a thread in CIVIC.

The mean occurrences of the various reflection variables in CIVIC were on

average higher per thread than in any other list. This was particularly the case for

counterarguments that addressed reasons used in an original argument. In general the

relationships between conversation techniques and types of reflection were similar to

other lists particularly GCFI which also had evidence of all types of counterarguments

being used in the list. As noted above CIVIC presents an interesting case because of the

lack of a formal organizational structure which is associated with the list. As a result,

relatively more threads on this list focus on internal organizational issues. In fact, some of

these relate to the issue of reflection and were used to explore this variable further. These

include referencing the past and the asynchronous nature of email communications. In

both cases, participants suggested in interviews that there was awareness of the

importance of referring to previous discussions and for maintaining coherence given a potentially disconnecting form of communication. However the participants also indicated that they were not always successful in managing these challenges.

CIVIC was the most active of the three lists in terms of proportion of threads in the population and number of emails per thread. Also, more of the hypothesized variables were significant in relation to the three main dimensions of deliberation in CIVIC than on the other lists. This was particularly true for the proportion of reasoned arguments in a thread and for reciprocity. Specifically, for the proportion of reasoned arguments used in a thread, country diversity and the presence of a moderator were particularly relevant. In terms of reciprocity the time-based variables were particularly important as were the structural variables. The contextual variables were not as significant in CIVIC as they were in GCFI in explaining the use of reasoned arguments or forms of engagement. While as with GCFI, there was some similarity in the relationship between forms of reflection and conversation techniques.

Overall, the mean proportion of reasoned arguments used in a thread was highest in CIVIC, as were the mean number of occurrences of reflection. However, reciprocity was higher in SCVP. In exploring these aspects of deliberation certain variables stand out relative to the other lists, such as country diversity (reasoned arguments) and time (reciprocity). Finally, the fact that CIVIC was the only list with no parallel formal organization lead to more discussion about its own organization. This was useful not only for observing deliberation but understanding some of its perceived challenges.

8.1.3 SCVP

The third and final list is also the youngest of the three in terms of start date. It also has the smallest membership base (Table 6) and the lowest average number of participants per thread (2.4) and average number of emails per thread (3.2) among all three lists. However SCVP does not have the lowest proportion of emails from the population that fall into threads indicating that there are fewer one-off emails than GCFI. Another characteristic of note is that the membership, like CIVIC, primarily consists of countries from the insular Caribbean although the total number of countries represented is slightly fewer than CIVIC and GCFI.

With regard to the proportion of reasoned arguments used in a thread, in SCVP the mean was second highest among the three lists. Unlike the two other lists, country diversity is not significantly correlated to the proportion of reasoned arguments in a thread although occupational diversity is. In fact, occupational diversity is also significantly correlated to the use of narratives in a thread, suggesting that this form of diversity is more important to both reasoned arguments and narratives than country. As before, the presence of the moderator is also relevant. However in the case of the moderator the significance is with regard to the proportion of narratives in a thread and not reasoned arguments as was the case in CIVIC. In addition, the moderator was more active in SCVP than any other lists. Finally the contextual variables of topic and scope of a thread were not significantly correlated to the use of reasoned arguments in a thread.

Of the three lists, SCVP had the highest mean levels of reciprocity per thread. In fact, the maximum values for the mean were also the highest in SCVP. In this case, one time based variable was found to be significantly correlated to reciprocity, the age of the thread. The correlation coefficients for the structural variables were also significant with

similar signs to the other lists. However, what was different was the size of the coefficients. For the distribution of sent emails the correlation coefficient was half that of the other two lists and for the distribution of emails received the coefficient was twice that of the others. The correlations with the engagement variables were only significant between the proportion of suggestions made in a thread and the topic of that thread.

In SCVP there was no evidence for certain types of reflection such as counterarguments that include both a critique of other arguments and support for new arguments, and argument referencing. This, then, was the main source of differentiation with the other two lists. Thus, for example, the relationship between speaker selection and higher forms of reflection (when viewed in terms of counterarguments) could not be determined in SCVP. Also while the means for the number of occurrences of each type of reflection per thread were usually the lowest among all three lists, one exception was response incorporation. In this case, the mean was slightly higher than GCFI.

Overall SCVP was the youngest list and had the smallest population of emails among the three groups. As noted from the descriptions above, deliberation was also manifested differently in SCVP. That is, this list had the highest mean level of reciprocity per thread of all the lists along with the lowest mean levels of reflection per thread. In terms of identifying relationships between the key aspects of deliberation and hypothesized variables certain correlations were unique because they were not significant (e.g., country diversity and the proportion of reasoned arguments in a thread) or significant in different ways (the presence of the moderator and the proportion of narratives in a thread). In addition, other variables were important in that they pointed to correlations with different measures of a dimension of deliberation. For example, these

include occupational diversity and the proportion of reasoned arguments and narratives in a thread or time-based variables and reciprocity. Together these relationships point to the different ways in which the characteristics of SCVP interact with deliberation in that list.

8.2 Three Dimensions of Deliberation

These findings point primarily to the various factors that influence each of the three main dimensions of deliberation and in so doing help to answer the three research questions of this dissertation. These are restated here:

Research Question 1: What factors influence the use of reasoned arguments during online deliberations in an international civil society context?

Research Question 2: What patterns of posting and replying in an online conversation are associated with reciprocity?

Research Question 3: What strategies within conversations influence the reflection process during online deliberations?

With regard to Research Question 1, I argue that diversity, moderator activity and the scope and topic of a thread are all relevant factors that influence the use of reasoned arguments in these lists. The specific nature of this influence was however, sometimes not as predicted.

Specifically, the first two hypotheses concerning diversity were accepted. Thus I argued that both country and occupational diversity are relevant factors in understanding the use of reasoned arguments in these lists. This stems from a motivation to use reasoned arguments to promote a position where there are perceived differences between participants. The third hypothesis was concerned with the use of narratives and although

it could not be accepted, the analysis pointed to other potential areas for studying this factor. The fourth hypothesis under Research Question 1 suggested that reasoned arguments would increase with moderator activity in a thread. This was accepted and was a function of the specific style of the moderator in that list. Finally the last two hypotheses were concerned with the topic and scope of a thread. Again although the analysis could not confirm these hypotheses, it suggested that these were still relevant factors in explaining the use of reasoned arguments by pointing to other topics and levels of scope that were pertinent and unique to each list.

Research Question 2 looked at two types of posting patterns of potential relevance to reciprocity; time and the distribution of emails sent and received. I argue that more than time, the patterns of sending and receiving emails were particularly important in explaining reciprocity. Furthermore, one unpredicted but important result was that equal participation (in terms of emails sent to a conversation) often came at the expense of reciprocity.

In this case, the first three hypotheses dealt with time and included the time-span of a thread, the average delay between emails and the age of a thread. The first hypothesis that reciprocity increased with the time-span of a thread was accepted for CIVIC only. The second hypothesis under this research question stated that reciprocity increased as the average delay between messages decreases. However there was no evidence to support this hypothesis in any of the lists. The third hypothesis predicted that the older a thread got (in terms of the time elapsed since the start of the list) the higher the reciprocity in that thread. However the results indicated that in fact the reverse was the

case. The closer the thread was in date to the start of the list the greater the reciprocity pointing to the importance of changes in membership over time.

The fourth hypothesis under Research Question 2 suggested that as the distribution of emails received by participants grew more even reciprocity would increase. This was confirmed for all three lists. However while the fifth hypothesis made a similar prediction for the distribution of emails, the results indicated that reverse was true. That is, as the distribution of emails sent to a thread became more even, reciprocity would decrease. This finding is then problematic in terms of reconciling reciprocity and the deliberative condition of equal participation.

Finally, with regard to Research Question 3, I argued that several conversation strategies are indeed relevant in understanding how different forms of reflection are used by participants. Specifically, speaker selection whether in terms of identifying an individual or the group as the recipient was associated with different types of counterarguments. Turns designed to support argument referencing were seldom observed mostly because of the effort involved. Also preference organization was associated with agreement or disagreement with an initial argument and led to reflection in the form response incorporation or counterarguments.

One of the main findings of this dissertation is the set of factors that influence the various dimensions of deliberation. These include diversity, moderator participation and context for the use of reasoned arguments; total time-span, the age of a thread and the distribution of emails sent and received for reciprocity; and speaker selection, turn design and preference organization for reflection.

8.3 Implications for Deliberation as a Whole

In addition to these factors there were also differences between the mean values of each dimension of deliberation (i.e., mean proportion of reasoned arguments per thread, mean reciprocity per thread or mean number of counterarguments per thread) across the three lists. Thus the findings reflect the unique characteristics of each list while pointing to some general patterns. For example, CIVIC had the highest mean proportion of reasoned arguments in a thread and highest mean counts for several forms of reflection. In SCVP the mean reciprocity per thread was the highest among all lists. Finally in GCFI, the mean proportion of reasoned arguments in a thread and mean reciprocity per thread were the lowest; yet alternative indicators such as mean proportion of narratives in a thread or mean proportion of suggestions in a thread were the highest among the three lists.

The overall findings therefore suggest that different aspects of deliberation are observable in each list. Also of relevance is how these dimensions occur together in a conversation. In Table 33 below, the variables for the three main dimensions of deliberation are compared: reasoned arguments, reciprocity and reflection. The five measures of reflection are included for completeness. Note the correlation results control for the total number of emails and participants in a thread.

There is no single correlation that is significant across all three lists. Two correlations that are significant in two of the lists are between ReasonsR and Counter2 and between ReasonsR and Counter3 in CIVIC and GCFI. This suggests that participants' use of counterarguments is associated with the use of reasoned arguments on these lists. The positive sign of the coefficient indicates that as more reasoned arguments

are offered in a conversation the number of counterarguments also increases; an

indication of how different dimensions of deliberation operate together in practice. In

particular the type of counterarguments that are relevant here are those that at least

address the reasons offered in the original argument.

Table 33 – Correlation Results for Different Dimensions of Deliberation

List	Variable	counter 1	counter 2	counter 3	argu-ref	Incorp-position	Reasons R
CIVIC	Reciprocity-reply	-0.0543	-0.0459	0.0605	-0.0578	-0.0013	0.0418
	ReasonsR	0.0999^{+}	.1609**	0.1309*	0.1559**	0.0942	
SCVP	Reciprocity-reply	.2201**	0.1498^{+}	.	.	-0.1129	0.0425
	ReasonsR	0.1029	0.1126	.	.	0.0469	
GCFI	Reciprocity-reply	-0.0434	-0.1104	-0.0917	-0.0359	-0.0884	0.0105
	ReasonsR	0.1697	0.28**	.2857**	0.1176	0.1431	

(** $p<0.01$; * $p<0.05$; +$p<0.1$)

Other forms of reflection are not correlated with the use of reasoned arguments, or

are significantly correlated in only one list: CIVIC. Specifically in CIVIC there is a

significant correlation between ReasonsR and Counter1 (at the 10% level) and ReasonsR

and argument referencing. Both relationships also suggest that these forms of reflection

increase with the proportion of reasoned arguments in a thread. Together these

correlations also suggest the relationship between ReasonsR and the various forms of

reflection is strongest in CIVIC, while there is no relationship in SCVP.

Reciprocity is only correlated with certain forms of reflection in SCVP. For

example, Reciprocity-Reply is positively correlated with Counter1 suggesting that an

increase in the proportion of emails that receive replies in a thread is associated with a greater use of counterarguments that do not address the reasons offered in an initial argument. There is also a significant correlation with Counter2 (at the 10% level) which together suggest that as participants are responding to each other's counterarguments; another indicator of the process of deliberation in practice.

Of note is the fact that in none of the lists was reciprocity significantly correlated with the proportion of reasoned arguments used in a thread. This implies that in many cases, participants are not necessarily responding to the reasoned arguments of others, but instead to opinions or assertions that are not supported by reasons. Thus although they are critical elements of deliberation, reciprocity and reasoning are not associated with each other in online conversations in these lists.

In general the results indicate that of the three dimensions, the use of reasoned arguments and reflection are more likely to be correlated together in two of the three lists (CIVIC and GCFI). Reciprocity and reflection is correlated in only one of the three lists (SCVP). Finally the use of reasoned arguments and reciprocity are not significantly correlated in any of the three lists. Thus there is no example of more than one significant correlation between the three dimensions of deliberation in any of the lists indicating that the different aspects of deliberation were sometimes observed to be independent of each other.

Alternatively one could look at the extent to which all three dimensions of deliberation simultaneously occur together in a conversation. In both GCFI and SCVP only three percent of threads had a value of greater than zero for both ReasonsR and Reciprocity-Reply and a value of greater than zero for at least one of the reflection

variables. In CIVIC this percentage was fourteen. Thus all three dimensions could be observed in some threads but given the correlations above it is unlikely that they could all occur at any meaningful level.

Another set of concerns are the conditions under which deliberation occurs. As discussed in Chapter Six, in all three lists reciprocity is positively correlated with SentGINI or the distribution of emails sent by participants in a thread. The implication is that having few persons send most of the emails in a thread is associated with higher reciprocity in that thread. This is a challenge to one of the conditions of deliberation where participants are expected to participate equally.

Together these results point to another major finding of this dissertation that deliberation as a whole is difficult to realize in an online conversation. This can be seen from the correlation results between the three dimensions of deliberation, the extent to which all three dimensions occur in the same thread, and the challenge of ensuring equal participation (in terms of sent emails) while maintaining high reciprocity in a thread.

8.4 Improving International Online Deliberation Spaces

While these results point to the challenges of realizing the deliberation online, the three research questions of this dissertation also point to factors that can ameliorate existing online spaces with a view of improving deliberation. Designing online spaces for deliberation is of course not a novel endeavor. For example, Noveck (2004) does just this in outlining the experience of Unchat as such a space. The idea behind designing online deliberation spaces is to create the structure and rules for a forum that will promote various aspects of deliberation. The following then is meant to complement this literature.

Several variables were identified as being significantly correlated or important in explaining the use of reasoned arguments in a thread. Diversity within the conversations was particularly important both in terms of nationality and occupation. This stems in part from the overall membership. Thus how the group is constituted is important and incentives that promote diversity would also be relevant. Diversity could perhaps be assumed to be the case in an international civil society group, but is not a given.

Another factor is the participation of the moderator. The extent and style of this participation appears to vary based on the function of the list. However, this is also part of the design and overall goal of the list and therefore the moderator could intentionally or implicitly promote the use of reasoned arguments in discussions. The results suggest that the moderator led by example by using reasoned arguments or narratives. This was relevant even though the level of moderator participation was very different on across the lists. Thus even where a moderation style calls for limited participation, having a positive effect on the use of reasoned arguments is still possible.

The other set of unique variables refer to the context of a discussion (topic and scope). Scope, for example, appears to be important to make the list relevant in the minds of participants. Several interviewees pointed out that in a region such as the Caribbean, having a forum whose scope was regional was important in creating the critical mass for a civil society group which might not exist at the (much smaller) country level. Of course as noted in Chapter Five not all conversations focused on the regional level; however, it is the opportunity to discuss regional issues that is important to the participants.

The issue of time and reciprocity was more important in some lists than others. It is also a variable that many other fora use to structure discussions. One participant in

CIVIC pointed to her experiences in other online groups where contributions to debates were limited to a specified time. One finding from this dissertation is that time is not always relevant to reciprocity and it depends on the nature of the list. What was consistent was the relationship between the distribution of emails sent by participants in a thread and the reciprocity of that thread. In other words, the degree to which people replied to each other's emails decreased as the contributions to the online conversation become concentrated around a few people. This relationship was weaker in the SCVP list and perhaps the sending and replying patterns on this list could be instructive. This was a much smaller list than the others and it also had a higher proportion of participants who replied to each other's emails. This could possibly explain why reciprocity had a weaker correlation with the distribution of emails sent by participants in a thread than in the other two lists. Having a small membership base with participants actively replying to each other is not always practical, however. However, forum designers could encourage participants to become more familiar with other through self-introductions and other activities. Over time, this could encourage participants to respond more to one another's arguments.

The analysis on reflection lends itself less to recommendations of design. Nevertheless there are a few points worth noting. First, turn design as with other areas of a discussion can be encouraged based on specific forum guidelines. In this case, members could be encouraged to shape their emails by responding to and quoting individual points made by other members. This and other suggestions such as the use of reasoned arguments all point to examples of suggested behavior in an online forum. Realizing such behaviors would depend on a combination of factors such as the incentives of the

members to participate. Other suggestions related to reflection were mentioned by some participants of CIVIC and include creating easier access to the message archives and having a system for collating threads and discussions online. Both suggestions point to the weakness of an email-only forum in managing these discussions when compared to other online tools such as a web-based communications.

Finally another factor is the overall structure for deliberation and ultimately decision-making in an online forum. There were several debates in CIVIC about the relationship between organizational structure and formulating discussions and decision-making on the list and it would useful to review some of these here. These threads did not lead to decisions but they are instructive in that they point to some of the issues in creating an online decision making space. They also consist of actual debates among participants in an online space about democratic decision-making as opposed to the academic literature. There were three main positions that participants (at least those of the vocal minority) supported.

First, there was the status quo or the system of mandates where individuals can make a proposal for other members to votes on. This is based on a majority vote which assumes that persons who stay silent are in agreement with a given proposition. Anyone can put forward a proposition to the group and this can even consist of a change in the mandate system itself as its proponents are quick to point out to critics. In practice, the mandate system was often used to give temporary authority to members to represent or act on CIVIC's behalf when participating in other groups or events. One implication of this is that there is no formal structure, official head or set of persons who can make decisions for CIVIC. However, proponents of the mandate system suggest that it is good

from a democratic point of view, since anyone can take charge of the group depending on the situation – thus they prefer the non-hierarchical structure of this system. As one supporter argued: "Everyone has the opportunity to be part (of the group) and shape things" (CIVIC thread 290). Also as another interviewee argued, this also allows for a degree of flexibility that can keep the organization going in periods of little activity. If it was formal, the level of activity would have to be constant.

However, having no formal structure is precisely the problem that some other members have with the mandate system. They argue that it doesn't have to be hierarchical but would at least allow the group to engage in actions similar to that of other NGOs such as getting funding, implementing projects, etc. For them the question is not so much about how to make decisions, but which decisions will the group consider. Tied to the scope of decisions is a question of leadership that proponents of a more formal structure are concerned with. They argue that under the current system there is no clear leadership and that this hinders any meaningful impact of the group in the Caribbean. Expressing her disappointment with the status quo, one member put it thus:

> *From time to time, other CIVICers raise the issue of the community needing to serve some missing pieces in the region - research, policy advocacy, consumer rights, interface with international bodies. These latter activities require something other than a listserve to have any credibility.* (CIVIC thread 290)

Alternatively, another set of participants feel that the mandate system imposes too much structure on the group. For them the purpose of the list is not necessarily to come to an agreement or implement some action but to foster the benefits that come from sharing ideas and opinions. In fact some object to the notion of action or decisions on behalf of

everyone. Again quoting from members who hold this view better illustrates these arguments:

> *"Perhaps true democracy is defined by the sound of dissenting voices creating a harmony together (in several different languages at once? :-))."* (CIVIC thread 299)

> *"But you see... this is a discussion, and we've both presented perspectives. I'm richer for your perspective, and I hope you're richer for mine. And anyone who comes across it can discuss it as well. That's really the power of democracy - discussion."* (CIVIC thread 293)

> *"Mandates are booooooooooooooooooooooooooooring.*
> *Even more boring than this long boring thread for approval of a mandate.*
> *Mandates are against everything CIVIC has been so far and are the most likely candidate to harm CIVIC and members participation and engagement.*
> *When people start to talk about mandatez and charterz (with an z for zzzzzzzz boring), I just simply skip or delete the messages."* (CIVIC thread 277)

This debate is not that different from one mentioned earlier between theorists of deliberative democracy who place an emphasis on the epistemic (outcome or decision) or expressive (process based) values of deliberation (Gutmann & Thompson, 2004). The case of CIVIC demonstrates that the purpose of deliberation is debatable both in theory and practice. One could separate the issue of decision-making and structure. For example, it is not difficult to imagine a loose but formal organizational structure in CIVIC that employs a mandate system for decisions. Yet this separation was not easy for participants to make as the flexibility argument shows. In the case of CIVIC the mandate system remains.

8.5 Implications for Civil Society Groups and Policy Considerations

One of the challenges for civil society groups is to achieve a balance between their organizational structure, deliberation and decision-making. By organizational

structure I refer to the formal decision-making body that most organizations have. Among the three lists used in this research all but one had such a structure, CIVIC being the exception. As pointed out this was in fact the source of much debate in that group. Identifying this structure is in part related to the overall goal of deliberation in the list. For many this involves arriving at a decision or action. However for others deliberation is more of an end than a means. Ultimately these are issues that should be defined by the participants themselves. In fact, it might be a useful exercise for members of a forum to agree on how best to combine their organizational structure and their goals for discussion.

The results from this dissertation are also relevant for civil society groups in several ways apart from the design of more deliberative fora and balancing the goals of deliberation, structure and decision-making. One area of relevance is contributing to policy, an objective that almost all interviewees reported as being part their list.

The emphasis on deliberation in general in this dissertation implies that no specific policy problem was addressed. Instead the analysis proceeded by looking at how civil society groups approach different policy problems. Thus rather than draw conclusions for a specific policy arena, these findings point to potential ways of addressing policy design and formulation.

In the first instance, members of all three lists view their groups as having a direct impact on policy in the region. This can take different forms. For example, in some cases the group as an entity is able to posit policy recommendations to a national or regional government agency. However this varied based on the capacity of the group to engage in such activity and sometimes on the organizational structure of the group. Members of CIVIC pointed out that although they had no formal organization that could be used to

submit policy documents to governmental groups; they were still able to make contributions to regional efforts as individuals while benefitting from their discussions and findings in the group.

Perhaps a major form of policy influence comes from having policy-makers themselves as members of the lists. Several interviewees from all three lists suggested that this was one way that they observed their groups contributed to regional policy. This can take the form of policy-makers listening and learning from the discussions of other members or actually contributing to discussions, although the latter is rare. Recall that all three groups have representatives of governments in their membership. Most members felt that these government representatives were able to learn and weigh the pros and cons of different sides of policy debates on a list.

Whether they interact directly or indirectly, as a group or individually with members of a list, policy makers are able to benefit from the discussions on a list. This kind of interaction between civil society and government is encouraged in what was described earlier as the pluralistic view of deliberative democracy theory which encourages collaboration between the state and civil society (Mansbridge, 2007). In this way civil society groups can be seen as a vehicle for deliberation for the benefit of society as a whole.

The three cases of online deliberation among civil society groups did also show the potential for collaboration across many different groups at a regional level. These groups could operate at the national level and participate in the regional list. In one instance, GCFI members noted that the group was a platform for bringing together many different interests to influence the government of Belize in passing legislation for the

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conservation of particular types of marine life in that country. In this way, policy makers are made aware of the key regional policy issues that are of importance to civil society groups in a given arena.

This emphasis on the regional is particularly important for inter-governmental efforts in a given area. For example, in the Caribbean, civil society groups have played an important role in addressing regional issues (K. H. Harrison, 2008). Thus civil society groups can assist governments in others areas beyond policy formulation such as in the actual implementation of programs. However, even where online fora can facilitate deliberation in a region wide group, the ideals of deliberation are still difficult to realize. Nevertheless, with the possibility of promoting greater legitimacy of regional policy through collaboration with civil society groups, perhaps investing in ways to improve such forms of deliberation is worthwhile.

8.6 Potential Areas for Future Study

This dissertation has touched on a broad range of issues in examining and deconstructing the phenomenon of online deliberation. In so doing I have discussed several findings and related them to the notion of deliberation as whole, possible ways of improving the structure of online fora, and the relevance to civil society groups and policy-makers. The study was based on a comprehensive notion of deliberation, used a broader set of methods than previous studies, and employed data from regional civil society groups. There are, however, several ways in which this research project could be extended.

For one, I focused on the process of deliberation and not on the outcomes. Further research could attempt to relate the findings for the use of reasoned arguments, reciprocity and reflection to effectiveness of decisions that result from deliberation. In addition, effectiveness in this sense would not only include impact but also legitimacy as a key part of deliberative theory. Another issue worth exploring is the political culture of participants and how that could affect deliberation (Shane, 2004). This might be particularly relevant in an international setting.

The analysis of narratives in this research did yield some useful results. However a more intensive investigation could focus on this variable specifically. For example, during the interviews some members from CIVIC and GCFI felt that there had to be a feeling of trust among members for narratives to be used more. This could partly explain why it was used on some lists and not others. For example, in the GCFI list, one suggestion was that narratives take on greater validity because among scientists there is an expectation of integrity. Alternatively one member of CIVIC thought that narratives worked because of the shared development goals that members had towards the Caribbean. Thus exploring community values and trust among members of an online group could reveal the conditions under which narratives are used as part of deliberation.

This dissertation also showed the potential for using conversation analysis as a method for understanding reflection. In particular I showed how various conversation strategies were related to different forms of reflection. A larger study could apply CA to other aspects of deliberation as well. For example, one might ask what conversation strategies participants employ when using reasoned arguments. Such an analysis could also be useful in improving the design of online spaces.

Finally, another issue to explore could be how these various dimensions of deliberation evolve over time. One set of time-based variables were used in discussing reciprocity although only one of these look at difference in threads over time. It could be useful to examine for example how the proportion of reasoned arguments evolves over time and what factors might influence it in that case. This could provide a better understanding of how online deliberation changes among the same or similar group of participants.

8.7 Conclusions

This dissertation sought to understand how deliberation took place in the intersection of two unique spaces: dialogue among members of regional civil society groups and communication in online fora. This research then examined some of the key factors that influenced deliberation in this environment. Specifically I looked at how certain variables in these discussions were related to the three of the main dimensions of deliberation, the use of reasoned arguments, reciprocity and reflection. With regard to reasoned arguments, I examined how diversity among members, the participation of the moderator and the topic and scope of the conversation were pertinent to a discussion in a regional and multi-national setting. For reciprocity I looked at how time and the posting structure of a conversation were relevant in an online forum. Finally I looked at the strategies that were employed by participants as part of the communication process in an online forum and how these were related to processes of reflection.

To address these questions I used a combination of content analysis and conversation analysis of email conversations and interviews with participants. One

methodological contribution of this project is the codebook that was developed as part of the content analysis exercise. This is a refinement of previous efforts by specifying elements of both the rational critical debate and the reflective processes in a conversation. Another is the use of conversation analysis. Although novel it has been used for the understanding of online communications in other fields and this work suggests its utility in further efforts to understand online deliberation.

The results are also significant and can contribute to our understanding of deliberation in an online context for which there has been little previous research. For example, I showed that national and occupational diversity can contribute to an increase in the proportion of reasoned arguments used in a conversation as does the presence of the moderator. However, these factors along with the scope and topic of a thread vary in their degree of influence on the use of reasoned arguments by the civil society group in question. I also showed that the posting structure of a conversation specifically the distribution of emails that participants send becomes unequal as reciprocity increases. This does not augur well for a deliberative ideal that envisions both reciprocity and equal participation. Finally I showed there are specific communication strategies that participants employ such as preference organization or speaker selection that are related to different forms of reflection evident in a conversation.

When considering deliberation as a whole, the results indicate that its different parts are not always correlated with each other. None of the lists have more than one significant correlation between the three dimensions of deliberation. In fact, reciprocity and the use of reasoned arguments were never significantly correlated in any of the lists.

Together these results suggest that deliberation as a whole is difficult to observe in practice.

Nevertheless I suggest that separately the results for each dimension can be useful from both a design perspective and for policy-makers in general. For example, encouraging diverse membership, having a more active moderator, and the opportunity to discuss regional issues could all help to promote a greater use of reasoned arguments overall. Experimenting with different ways in which group members can get to know each other might help to reduce the disparity between participation and reciprocity. Also encouraging participants to reply inline where possible, creating easier access to the message archives and having a system for collating threads and discussions online could all promote better reflection in the lists. Finally the list might benefit from having members go through an exercise of determining whether or not and in what way decision-making should be part of their discussions.

With regard to policy-makers I note that several members reported benefits for policy-makers who themselves were members of the lists. This could stem from listening and learning from the discussions of other members or actually contributing to discussions. The groups also showed the potential to collate many different policy positions around a specific problem, thus assisting policy makers in understanding issues at a regional level.

In sum although the deliberative ideal is perhaps difficult to achieve in a comprehensive manner, with some effort and by addressing factors that are related to the different dimensions of deliberation we can perhaps come close to that ideal. Given the continued existence of political equality and the need for improved forms of regional

governance in areas such as the Caribbean, improving online deliberations spaces may be well worth the effort.

APPENDIX I

CONTENT ANALYSIS CODEBOOK

Content Analysis Codebook	
Content Category	**Description for Coding**
Thread level (or case attributes in Nvivo)	
Main topic of thread	• Varies by list
Scope of topic	• Varies by list
# of unanswered questions	Number of questions that go unanswered or with no response in a thread
Decision	Was a decision on some collective action/position reached? (YES/NO)
Content Category	**Description for Coding**
	Sentence level (within emails) Code for each sentence. Email headers, quoted sections of the email, signatures of email are not coded. Also computer generated text (from the listserv) are not coded. Several thoughts can be compounded in a sentence through conjunctions, etc. **If sentence can fall into two categories – code for part that is greater – or if the same then the first part.** In general if there is a potential overlap between choose the category that represents the overall meaning of the sentence.
Statements of agreement	A signal of support with something a prior speaker said, including the moderator. These are statements, such as "I know," "I agree," "That's right," "I support", "I also think that X is a good idea" (following a prior email where a member said X was a good idea). It also includes votes in support of some action/decision. **Exception** – statement of agreement with something external to the thread (a statement by person who is not a member of the list, some famous person, etc.) – is coded as a fact.
Statements of disagreement	A statement that signals opposition with something a prior speaker said, including the moderator. Disagreement can be suggested by phrases such as: -"I disagree," "I kinda disagree," "I'm not sure about that"

Content Analysis Codebook	
Content Category	**Description for Coding**
	"That's not right," etc. - Also statements can start with "I agree with that, but .." or includes a "but" in the sentence to refute something that was said by another participant. - This includes votes against some decision/action. - The participant could also disagree with another's statements by repeating what was said but then purposely changing some element of it (for example if they said "X=Y=Z" the person in question should say "X=Y=A".
General Opinion/Assertions	An opinion/assertion is as an expression of the individual's belief about how the world is or should be and can cover an event, a social problem, a state of affairs, a crisis, values, etc. They will include statements such as "I think that X=Y;" "It <u>seems</u> that.." They will include speculation or assumptions on the part of the member. These are statements that they cannot be readily validated by others. Note that this can come in the form of rhetorical questions or questions to no one in particular. Also sarcasm is included here. Also includes a person's preferences on an issue ("I prefer X instead of Y") or (I <u>hope</u> that …) Also **expressions of interest** are coded in this category (e.g., "I am interested in hearing what you have to say…" or "Whats interesting to me…" Emoticons by themselves should be coded as opinions. **Exception** – Note that suggestions for collective or individual position/action is an exception from the Opinion/Assertion category. E.g., someone might say "I think that we should sign the petition…" or "John should write the letter." Although the use of the words "think" or "should" in the above imply an opinion – this is coded as a Suggestion/Action.
Facts	A fact is a statement that a condition has, does, or will exist and which can be validated. The validation aspect makes it

Content Analysis Codebook	
Content Category	**Description for Coding**
	different from opinions which cannot be verified.

Also includes actions completed by members as part of discussions in that list (e.g., "I contacted B on behalf of the list..", "I prepared a draft policy for discussion", etc.)

Note that the coder makes no judgment on the fact itself – they can be bad/good/poor, etc.

This category also includes actions or task completed by people outside of the list (e.g., "The organizers stated that they will post the documents on a website…" |
| Reasoned Arguments - to support opinion/assertion, agreement, suggestion or prior action (facts). | Reasoned Arguments – in this case refers to the explanation for why the member has a particular opinion/assertion, made a suggestion, etc. Note that the opinion/assertion should have been stated before ("I think that health policy must change"…) and it is now been followed up by a reason ("Just look at the increasing number of insured people…"). Alternatively the opinion/assertion and reason could be part of the same sentence. Either way, the opinion/assertion/action in question must be clear to the coder.

Note that if a reason and an opinion/assertion are in the same sentence then it is coded as a reasoned argument.

The reasoned argument could also be an explanation for a prior action ("I voted for X for because…," "I did not say anything in this thread before because…")

Also the coder makes no judgment on the reason itself – they can be bad/good/poor, etc.

Also reasons don't have to be factual but must shed some light on why the member has a particular opinion/position.

This could come in the form of an appeal to logic and could include phrases such as:
"If, then,"<br>"because,"<br>"therefore,"<br>"so,"<br>"since,"<br>"until," " |

Content Analysis Codebook	
Content Category	**Description for Coding**
	as a result," "Given that..", "The fact that X means that…", etc. Reasoned arguments could also come in the form of comparisons, evaluations based on some criteria, generalizations, definitions, calculations. Reasons to support something that is not the member's own arguments are coded as facts as this is just reporting. E.g., "John said that they like candidate X because…" **Exception** – see Narrative below for specific types of reasons.
Narrative/personal stories	This is a special type of reasoned argument. Here the author is using his/her personal experience to justify a position/argument, etc. Specifically, this sentence uses narratives to support argument or position. These include personal stories, jokes, individual experiences, analogies, quotations that serve as arguments. For example, "When I worked with the government we used this method, "also "When mi was a bwoy…" Note that a narrative could span several sentences (e.g., a story) – thus each sentence that is part of the narrative is coded as such.
Questions for other members	A question directed to another member that is trying to seek information or an opinion from others, typically with a "?" at the end. E.g., "What do you think about?…" "How long did the task take?" Generally includes who what where when why how. Can also as for information: "Do you know how many people live there?" Note that rhetorical questions are not included. **Exception** – questions asking someone to do an action are coded in Suggestions/Actions (e.g., "Could you draft the letter?")
Suggestions/Actions	Here the sentence basically prompts members for some action or a promise by the author to do some action. The

Content Analysis Codebook	
Content Category	**Description for Coding**
	emphasis is on action. Suggest other members to do a task: "Email that person and ask them about…" Also include calls/promises of action by author or requests of action from others (e.g., "I will check it out and get back to you…". Includes suggestions for a collective position/action ("I propose that we do this…") **Exception** – (this is a repeat of what was mentioned in the Opinion/Assertion category above) Note that suggestions for collective or individual position/action is an exception from the Opinion/Assertion category. E.g., someone might say "I think that we should sign the petition…" or "John should attend the meeting on our behalf." Although the use of the words "think" or "should" in the above imply an opinion – this is coded as a Suggestion/Action.
Flaming messages	A statement in a thread that attacks the individual (in the group) rather than an argument. Includes the use of expletives. Any use of insults, expletives, etc supersedes other categories.
Clarification - oneself and others	Basically the author is trying to re-iterate a point made by them or someone else on the list. Can include self- clarification - clarify the member's own opinion or fact statement ("what I'm trying to say is", "The point I was making…") from a previous email. Or other clarification - clarify someone else's argument/opinion or fact statement. It's an attempt to clarify what someone else means.
Response incorporates ideas/opinions/assertions of other member(s)	Statement makes reference to what someone else in the thread said to create a new/modified argument. Basically **builds** on what others have posited rather than just repeat it, for example, to show agreement. E.g., "John's point is that we should say something and we should." is a statement of agreement, whereas "John's point is that we should say something and we should do that by writing to the newspaper." This should be coded here.

Content Analysis Codebook	
Content Category	**Description for Coding**
	Does not necessarily indicate agreement/disagreement. Another example: "Based on what John suggested, I think we should also do it there as well" "I would add that…" Note that both examples include a suggestion for collective action – but because there the sentence incorporates what someone else has said it is coded here.
Stated external References	The participant includes or makes reference to a source or example of something relevant to their discussion - A source/example can include the media, an expert as indicated by the message, a website, a book, a tv show, the news, journal etc. This can also come in the form of a forwarded email. Can also be an attachment or URL. Or, copied text, etc. research, survey, interview, contact details, etc. Other types of references include statistics, testimony, etc. **but does not include what somebody else said in the thread.** Note that similarly when the participant reports that a third-party makes reference to something **this is coded as a fact not a reference** (e.g., John said that the report stated 20% of people have access to…")
Other (non-deliberative)	Greetings, goodbye, salutation, names at the start/end of the email are coded as other. Also off-topic sentences, giving thanks, other idle chatter, etc.

APPENDIX II

INTERVIEW PROTOCOL

The following lists some of the topics to be discussed during the interviews with members of online discussion groups:

1. Occupation/Role and responsibilities outside the list.

2. Country?

3. What is the purpose of the online list?

4. How effective do you think this online group has been in influencing policy in the Caribbean – nationally/regionally? And why/why not?

5. A main feature of deliberation is putting forward positions based on facts/reason which are then critiqued by others – how accurately does that describe the debates on the list?

6. Do you think all sides of an issue are adequately represented in these debates?

7. Are there any particular instances when action was agreed upon in the list? Can you describe the process that led to that decision?

8. Do you think more/less deliberation could have helped in that case?

9. In addition to using evidence/facts to support arguments do you think its also effective to use personal experiences and histories?

10. If we take an example A of an actual thread in which you participated on the list,

    a. Do you think the decision arrived at could be seen as legitimate for all participants? Why/ why not?

b. In this case you were one of the few persons to oppose the decision – but it was approved anyway. Were you at least satisfied in how the decision was made?

In another example B.

c. You seemed to have incorporated the opinions of others in your argument as the conversation proceeded. Why do you think that happened?

OR can you recall an instance were you modified someone's argument/solution?

d. Do you think the criticism of your arguments were reasonable (i.e., focused on the substance of your argument)?

e. Do you often look back on what others have said in response to your arguments before you reply?

11. Do you communicate with individual members of the group outside of the list? (e.g., In person, via email directly, telephone, etc.)?

   a. Face-to face

   b. Email

   c. Tel

   d. Frequency?

   e. What would you typically discuss in those cases?

12. Why did you join the list and what do you hope to get out of it? Are you realizing these goals?

13. Have you participated in actual meetings with group members on issues related to those of the email list – how do those discussions/debates compare to the online discussions?

14. Do you think the list's regional focus and membership makes the discussions difficult? Why/why not?

15. Did the organizational structure (type of moderation, private/public access, etc.) influence the level and quality of dialogue on the list?

    a. Moderations of each email

    b. Public/private access

    c. Other?

16. What do you think of Internet created deliberation spaces for national or regional issues as a means of providing input in public policy? Could we use existing online spaces to achieve similar goals?

17. Is this something national/regional governments should support?

18. How else could such spaces be generated and used?

Moderator questions:

19. How have members responded to the rules for posting on the list?

20. What modifications if any have they suggested?

21. In what ways do you think the existing rules or suggested modifications can enable dialogue on the list?

22. Have you ever had to censure an email? Example?

23. What policies govern whether or not an email is allowed unto the list.

24. What about removing quoted emails?

25. How do you think the moderator can encourage more decision-making on the list?
(e.g., the less involvement the better, by stimulating discussions through news
postings, etc.)

26. Do you think it is necessary to moderate each email sent to the list?

APPENDIX III

ADDITIONAL RESULTS

Table 34 – Stratified sampling results for all three lists

Strata	CIVIC		GCFI		SCVP	
	Number in Population	Number in Sample	Number in Population	Number in Sample	Number in Population	Number in Sample
Threads with 2 emails only	348	90	58	43	114	73
Threads with 3 emails only	197	51	19	14	53	34
4 emails only	130	34	16	12	19	12
5	87	23	7	5	5	3
6	63	16	5	4	3	2
7	32	8	7	5	11	7
8	45	12	3	2	1	1
9	9	2	4	3	0	0
10	37	10	4	3	3	2
11	16	4	1	1	1	1
12	17	4	1	1	0	0
13	18	5	1	1	1	1
14	1	0	1	1	0	0
15	5	1	0	0	2	1
16	10	3	0	0		
17	7	2	0	0		
18	6	2	1	1		
19	5	1	0	0		
20	14	4	1	1		
21	8	2				
22	0	0				
23	1	0				
24	3	1				
25	1	0				
26	3	1				
27	1	0				
28	3	1				
29	6	2				
30	1	0				
31	0	0				
32	1	0				
33	2	1				
34	0	0				

Table 34 continued

Strata	CIVIC		GCFI		SCVP	
	Number in Population	Number in Sample	Number in Population	Number in Sample	Number in Population	Number in Sample
35	2	1				
36	0	0				
37	1	0				
38	1	0				
39	2	1				
40	1	0				
41	1	0				
42	2	1				
43	0	0				
44	2	1				
45	0	0				
46	0	0				
47	1	0				
48	2	1				
49	0	0				
50	1	0				
51	0	0				
52	0	0				
53	0	0				
54	1	0				
55	0	0				
56	0	0				
57	0	0				
58	1	0				
59	1	0				
TOTAL	1096	285	129	97	213	137

Table 35 – Membership by country for each list

Country	GCFI		Country	CIVIC		Country	SCVP
Anguilla	1		Argentina	3		Antigua	1
Antigua and Barbuda	1		Bahamas	1		Belize	1
Australia	1		BAR	24		Bermuda	1
Bahamas	2		BELGIUM	1		Canada	4
Barbados	6		BELIZE	5		Curacao	1
Belize	9		Brazil	1		Dominica	2
Bermuda	1		Canada	7		Dominican Republic	3
BVI	1		CAY	1		Grenada	1
Cameroon	1		CHILE	1		Guadeloupe	1
Canada	1		COL	1		Guyana	4
Cayman Islands	3		Curacao	1		Jamaica	4
Columbia	7		DOMINICA	2		St. Lucia	1
Costa Rica	2		DOMREP	6		St. Vincent	1
Cuba	3		FRA	1		T&T	2
Curacao	1		Grenada	2		UK	1
Dominica	1		GUY	7		**TOTAL**	**28**
Dominican Republic	4		HAITI	9			
El Salvador	1		JAM	21			
France	1		Japan	1			
Grenada	1		Martinique	1			
Guadeloupe	1		Mexico	1			
Guam	2		Peru	1			
Guatemala	1		Spain	1			
Honduras	1		St. Kitts and Nevis	6			
Jamaica	5		St. LUC	4			
Martinique	1		SUR	2			
Mexico	11		TT	25			
Montserrat	1		UK	3			
Panama	1		Uruguay	5			
Puerto Rico	11		USA	16			
St. Lucia	2		USVI	1			
St. Vincent and the Grenadines	1		Venezuela	2			
Trinidad	2		VIN	2			
Turks and Caicos	3		**TOTAL**	**165**			
United Kingdom	3						
USA	98						
USVI	6						
Venezuela	1						
TOTAL	**199**						

Email	Text
1	Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd) From: George Date: Thu, 16 Jun 2005 14:32:10 -0500 To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org> Is there a *completely* local (within the region) telecom company in the region? At all? Jennifer's right. Maybe a few people who are technically competent from the region should get together and do something. I keep hearing about multinational corporations from outside the region - shouldn't there be at least 3 from within our region to serve our region? If someone can float me a billion dollars worth of gold at present market prices (Russia is presently loading up), I promise not to buy a fancy car when I try to attempt it. :-) Jennifer wrote: > >Really? Digicel has messed up their PR big time in T&T - their WICB > >contract was very badly handled. If they handle Haiti like they did > >the WI cricket team, I have to paraphrase David Rudder - "Haiti, I'm > >sorry (for you)". Technical expertise is not everything. > > Jennifer
2	Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd) From: Gerry Date: Fri, 17 Jun 2005 10:23:44 -0500 To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org> George, I don't know if the *completely* local company is what we want. I am not against ventures that allow technology transfer. In Haiti, I can say that we have a history of mostly local telecom companies. In fact, Digicel is the first foreign company entering the market that way in the contemporary era. HAITEL (CDMA) and Comcel (TDMA), the two private mobile phone companies that existed before Digicel are mostly owned by Haitians, even though

Figure 15 – Excerpts from thread #292 (CIVIC) illustrating replying inline

Email	Text
2	there are also foreign interests in them. Mostly all ISPs are totally Haitians, except for one which is owned by Atlantic Tele Network, but where the management is completely Haitian.

Besides that, you have the state-owned companies TELECONET, the ISP branch of the state-owned TELECO phone company, Ti Telefon 2004, the non-roaming mobile branch of TELECO (it uses a Taiwanese technology) and Rectel the mobile phone branch of TELECO which, it is said, will also deploy a GSM service.

Historically, TELECO was a Canadian company that has been nationalized in the 1970s.
In that sense, Haiti really distances itself from other experiences in the Caribbean.

In the contrary, I completely favor the entrance of foreign companies in the market, at least to stimulate competition and force local companies to offer more value-added services to Haitians (HAITEL and COMCEL did not offer even SMS through their network, let alone WAP or other VA services; only voice), and to improve the quality of service.

I hope that the entrance of Digicel will stimulate the market and will break the quasi-cartel that existed with HAITEL and COMCEL.

However, since the entrance of this company was not completely transparent, and that our current law doesn't provide for real competition, all of this is still to be seen.

Gerry

On Thu, 2005-06-16 at 14:32, George wrote:
> > Is there a *completely* local (within the region) telecom company in the
> > region? At all?
> >
> > Jacqueline's right. Maybe a few people who are technically competent
> > from the region should get together and do something. I keep hearing
> > about multinational corporations from outside the region - shouldn't
> > there be at least 3 from within our region to serve our region?
> >
> > If someone can float me a billion dollars worth of gold at present
> > market prices (Russia is presently loading up), I promise not to buy a
> > fancy car when I try to attempt it. :-) |

Figure 15 Continued

3	Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd)
	From: George
	Date: Fri, 17 Jun 2005 15:07:39 -0500
	To: "Caribbean ICT virtual community CIVIC"
	<icacaribbean@dgroups.org>
	Points taken, Gerry. Still, if our region cannot run it's own
	businesses and if money is constantly leaving the region through funnels
	to other countries, we need to sell more coffee, bananas, sugar cane and
	souvenirs (as well as oil, for those who have it) to subsidize the
	telecommunications industry.
	Funny enough, Richard Jobity and I had discussed a website, 'Mangoes
	for Bandwidth', about a similar issue. That might be a good name for the
	next external provider that comes in and does the same. But you're
	right, too. And why are you right? Because people don't care.
	Technology transfer is not as big of a problem as some would think. If
	CARICOM ever stops looking like an instant replay of the West Indies
	Federation long enough, our region has collective bargaining power. But
	we elect politicians, and that should explain everything to most of us.
	What we DO need is to own our own infrastructure, even if it's two cups
	and a piece of string. Why do I pay someone in the U.S./U.K. to email
	you? Because at the end of the day, that's exactly what we're doing.
	When technology transfer is done, it needs to be done with that in mind.
	So your observations are correct. You're absolutely right about how
	things are now. The question I have is - how do we change things to the
	way that they should be without selling our rights away to the lowest
	bidder?
	Gerry wrote:
	> >George,
	> >
	> >I don't know if the *completely* local company is what we want. I am
	not
	> >against ventures that allow technology transfer. In Haiti, I can say
	> >that we have a history of mostly local telecom companies. In fact,
	> >Digicel is the first foreign company entering the market that way in the
	> >contemporary era.
	> >

Figure 15 Continued

| 4 | Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd)
From: Gerry
Date: Mon, 20 Jun 2005 18:13:23 -0500
To: "Caribbean ICT virtual community CIVIC"
<icacaribbean@dgroups.org>

George,

I will agree with your owning the infrastructure only if you add "at comparative quality and cost". A company that uses the infrastructure to sell its goods and services is only interested in the quality and the cost of it, not in who owns it. Now, whether it can be achieved better with owning the infrastructure or not is an other issue. Replacing Cable and Wireless monopoly with a local one will create the same bad results.

What's the point of owning the infrastructure if your country has the highest communications cost in the region, or lies behind in terms of technology ? That is the case for our historic telecom operator in Haiti, while this company was the more advanced in the region in the 70s. We also were the first country to deploy color TV on cable in the region.

Of course, this doesn't explain that. There are a lot of reasons why we lost this leadership and everybody knows why.
Of course, if we can have both and do it well, let's do it.

To resolve the problem of the infrastructure, I would rather advocate a regulatory framework that allows for competition to guarantee the best service possible and the lowest possible cost. Anyway, you will never have a big number of infrastructure operators because of the inherent characteristics of this sector, but you can have an infinite number of services over it and more potential job creation.

Gerry

On Fri, 2005-06-17 at 15:07, George wrote:
> > Points taken, Gerry. Still, if our region cannot run it's own
> > businesses and if money is constantly leaving the region through funnels> > to other countries, we need to sell more coffee, bananas, sugar cane and > > souvenirs (as well as oil, for those who have it) to subsidize the> > telecommunications industry. |

Figure 15 Continued

| 5 | Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd)
From: George
Date: Mon, 20 Jun 2005 21:50:39 -0500
To: "Caribbean ICT virtual community CIVIC"
<icacaribbean@dgroups.org>

Gerry wrote:
> >George,
> >I will agree with your owning the infrastructure only if you add
> >"at comparative quality and cost". A company that uses the
> >infrastructure to sell its goods and services is only interested in the
> >quality and the cost of it, not in who owns it. Now, whether it can be
> >achieved better with owning the infrastructure or not is an other issue.
> >Replacing Cable and Wireless monopoly with a local one will create the > >same bad results
Let's set a guideline for comparative cost (which is quite interesting, because internet access in Haiti is supposed to be the most expensive in the world). There's at least one economist lurking around here who will correct me if I am wrong.

The comparative cost should be determined by the amount of money that will no longer be leaving the economy; the cost can go up as long as the money stays in the economy. If I presently pay $100 US/month for internet access, and $49 of that goes overseas, then a comparative cost would within the range of $100-$149/month as long as all the money stays
in the local economy. Why? Because the money is not leaving, therefore the money stays in the economy and people can get paid more.
But then you have to factor in the baseline - how many people have, how many you want to have, etc. Nobody said it would be easy.

As far as comparative value - well, that's why you need competition, and why you need people who are willing to vote with their feet when service sucks.When you don't have competition, there is no need for people to do 'better'. I've seen it in two countries so far - Trinidad and Tobago and Costa Rica. Sing the praises of government controlled telecom all you want, but it has some definite issues - and one of these issues is quality.

> >What's the point of owning the infrastructure if your country has the
> >highest communications cost in the region, or lies behind in terms of
> >technology ? That is the case for our historic telecom operator in
> >Haiti, while this company was the more advanced in the region in the
> >70s. We also were the first country to deploy color TV on cable in the
> >region. |

Figure 15 Continued

5	> >
	> >
	If you have the most expensive telecommunications in the region, you
	should also be looking at how much money every year is leaving the
	economy to pay for something you don't own. A middle-ground might be
	to lease the infrastructure until it is owned by Haiti. I don't know. What
	I do know is that if Haiti wants to become a developed nation, Haiti has
	to find a way to own that infrastructure - especially if Haiti expects
	it to grow.
	If you wait for the crop's harvest, you'll pay harvest prices. Are
	Haiti's exports going to value faster than the telecom industry costs
	will drop?
	> >Of course, this doesn't explain that. There are a lot of reasons why we
	> >lost this leadership and everybody knows why.
	> >
	> >To be clear, I have the approach of the good old economic theory of
	> >comparative advantages : you do what you are better at, and I think we
	> >have more comparative advantage (and more to earn in terms of
	> >differentiation) in developing value-added services over the
	> >infrastructure than owning and maintaining an infrastructure. This can
	> >vary by country.
	> >
	> >
	It's a nice theory, but I don't know of any developed nations that do
	not own their own infrastructure, or where the infrastructure is not
	owned locally. Am I missing one? The same reason you and I advocate FOSS
	is the same reason I am saying that Haiti needs it's own infrastructure.
	> >Of course, if we can have both and do it well, let's do it.
	> >
	> >
	Right, that's what I am getting at... finding a way to do it.
	> >To resolve the problem of the infrastructure, I would rather advocate a
	> >regulatory framework that allows for competition to guarantee the best
	> >service possible and the lowest possible cost. Anyway, you will never
	> >have a big number of infrastructure operators because of the inherent
	> >characteristics of this sector, but you can have an infinite number of
	> >services over it and more potential job creation.
	> >

Figure 15 Continued

| 5 | If Haiti seriously looks at it's options now and tries to leapfrog ahead - with wireless, as an example (and which the Dominican Republic is doing through GTE) - a lot can be done. But I'm not the type of person who believes in renting a car and putting expensive rims and a sound system in it; I cannot rationalize that to make sense. Haiti's in a precarious position, but by now that shouldn't be anything new. There will be resistance, but that's nothing new. But a feeling of ownership, sometimes, is all it takes to allow hope. And a glimmer of hope can be worth more than all the economics you'll find in a textbook.

I don't know Haiti, but I know Trinidad and Tobago fairly well. Trinidad and Tobago has TSTT (Telecommunication Services of Trinidad and Tobago) is 49% owned by Cable and Wireless. 51% is owned by the government. Hypothetically speaking, then, 51% of the infrastructure should be owned by the government, which, hypothetically, is held in trust for the citizens of Trinidad and Tobago. TSTT has had better than 15% profits, with no substantial increase in quality of service - at least while I was there. In the last 5 years - before I even moved to Trinidad and Tobago- they were talking about allowing competition, and from what I have been reading on T&T mailing lists, they have people registering for licenses, and so on - adhering to laws which supported two separate providers that were merged in 1991 - one was for overseas, one was for local. So the legislating and so on continue, ad infinitum, ad nauseam. Give it another 5 years. Maybe. The problem is probably related to the infrastructure itself, which Cable and Wireless invested in to build (not that the maintenance has been great).

But here's a hypothetical situation. Trinidad and Tobago could simply buy the infrastructure completely out from under Cable and Wireless (it could afford to), make it a commons, and lease it's use to providers - thereby removing the conflict of interest that is there, as well as allowing competition. And part of that lease would be for the companies to maintain the lines - the better the lines are maintained, the cost of leasing the lines becomes closer to zero. Open the doors, and let the community support whoever gives the best service.

While Haiti isn't at an economical advantage (an English understatement), it could be working toward something similar. Every country in the region could be. But the present systems seem to give the multinationals the advantage, for some reason. And that keeps the people of the region negotiating from a position of weakness. Own the infrastructure, and you have leverage.

-- George |

Figure 15 Continued

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6	Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd) From: Gerry Date: Tue, 21 Jun 2005 12:59:15 -0500 To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org> George, I do not totally disagree with you. It's just that there is no 'size fits all' solution. In the Internet sector in Haiti, your analysis is 100% exact. Most ISPs in Haiti are paying around $80.000 monthly for their international satellite link. They are paying retail prices to their regional ISP provider, so Internet cost cannot lower in the country. Now, there is the opportunity for them to benefit from a project : an undersea cable is being laid down from Kingston, Jamaica to Santo Domingo, DR. The idea is to enter this cable also in the country via Jacmel, a coastal city in the South, at a few kilometers away from the Cable. The comparative advantage theory is a well known theory in the economics field. Under my IT hat, I am also an economist :-) I am for the development of non traditional sectors in our economies (and stop telling kids at school that we are in an agricultural country). However, I favor the 'softer' industries, those that require less capital investments and more brain (in proportion). Gerry On Mon, 2005-06-20 at 21:50, George wrote: > > Gerry Bruno wrote: > > >> > >George, >> > >I will agree with your owning the infrastructure only if you add >> > >"at comparative quality and cost". A company that uses the >> > >infrastructure to sell its goods and services is only interested in the >> > >quality and the cost of it, not in who owns it. Now, whether it can be >> > >achieved better with owning the infrastructure or not is an other issue. >> > >Replacing Cable and Wireless monopoly with a local one will create the >> > >same bad results.

Figure 15 Continued

7	Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd) From: George Date: Tue, 21 Jun 2005 18:42:14 -0500 To: "Caribbean ICT virtual community CIVIC" <icacaribbean@dgroups.org> Gerry wrote: > >George, > > > >I do not totally disagree with you. It's just that there is no 'size > >fits all' solution. > > > > I never said that there was, and you'll never hear me say that unless I clearly state it and am comfortable with such a position. > >In the Internet sector in Haiti, your analysis is 100% exact. Most ISPs > >in Haiti are paying around $80.000 monthly for their international > >satellite link. They are paying retail prices to their regional ISP > >provider, so Internet cost cannot lower in the country. > > > >Now, there is the opportunity for them to benefit from a project : an > >undersea cable is being laid down from Kingston, Jamaica to Santo > >Domingo, DR. The idea is to enter this cable also in the country via > >Jacmel, a coastal city in the South, at a few kilometers away from the > >Cable. > > > > There's no link that exists between Republica Dominicana and Haiti? It's sensible that there should be. The trucks go from Santo Domingo across the frontier carrying goods, I don't see why there wouldn't be a wire hanging around somewhere. Of course, that enters the politics of the island, and from what I have seen and heard, Haiti and Republica Dominicana aren't always good neighbours (English understatement again).

Figure 15 Continued

7	>>All operators in the country would co-own the infrastructure so they can
	>>have the bandwidth at cost. Financial estimates show that this could
	>>lower the cost of the bandwidth six-fold. The project is being
	>>undertaken by CCCN, a Caribbean Consortium. I do not know if Haitian
	>>operators will finally opt in, but I agree that this is the only way to
	>>significantly lower the cost of Internet access in the country.
	>>
	>>
	Right. But I would also think that it is in the interests of the people of Haiti that their government hold their infrastructure in trust, and that operators lease the infrastructure instead. That gives leverage to the government, which at least in theory is supposed to represent the theory.
	>>The comparative advantage theory is a well known theory in the economics field. Under my IT hat, I am also an economist :-)
	>>
	I'm not an economist. I see most things such as economics as a refinement of everyday thinking. I don't know the lingo of economists, but I am satisfied that I have a better than average understanding of economics. :-)
	>>I interpret your thinking (maybe I'm wrong) as that you really are for
	>>an economy of substitution of imports, i.e. growing your own local
	>>industry of, say, building computers, building cars, owning your
	>>infrastructure so that you do not have to buy these things abroad with
	>>bananas and mangos.
	>>
	>>
	In the case of a developing nation, yes, in broad strokes you're correct about my position. There are some things that cannot be reasonably done. However, in a knowledge based economy, the infrastructure which allows the transmission and reception of knowledge is of the utmost importance to be owned by the people it serves. There have even been co-ops formed, and I had the pleasure of spending time with Peter Abrahamsen in Nicaragua, who as a 'gringo Americano' has created a corporation to do the same thing on the island in Lago de Nicaragua. Another interesting thing that is somewhat related - I watched Nicaraguans in Esteli paving streets, and the streets are paid for by the people who live on the streets. Of course, Nicaraguan police also hitchhike home and accept gratuities for travellers who break the road rules... but Nicaragua did teach me a lot about some things that could be done in the region.

Figure 15 Continued

7	Plus, they have really good beer. Toña. And good rum- Flor de Caña. :-)
	> >I am for the development of non traditional sectors in our economies
	> >(and stop telling kids at school that we are in an agricultural
	> >country). However, I favor the 'softer' industries, those that require
	> >less capital investments and more brain (in proportion).
	> >
	> >
	I cautiously agree with you. Cautiously. Whether we like it or not,
	someone has to farm. Someone has to write poetry. Someone has to pick up
	the rubbish. All of these are needed... and I am cautious to tell anyone
	that they can be whatever they want; not because they cannot but because
	they may not be able to use their education. I can tell you that, as an
	example, there are literally tens of thousands - perhaps even hundreds
	of thousands - of people in the Caribbean who have certifications in
	Information Technology. Being educated does not mean that you are
	employed.
	Farming itself is not a dishonorable profession - indeed, more and more
	training is needed to do it right. I have gotten dirt under my
	fingernails: http://www.knowprose.com/images/agri0001.jpg
	Mind you, I'm not a good farmer and I probably never will be, though I
	do have some plans in the future. But that experience gave me respect
	for the people who are involved in agriculture. My perspectives usually
	come from many experiences. Building houses, mixing cement, digging
	ditches... when the need arises, these things need to be done and if
	there are only lawyers and doctors to do it, they better do it. Yet when
	lawyers and doctors do not, instead leaving the region, we have what we
	call "brain drain". We also have people leaving who *know* that the
	ditches need to be dug, that the houses need to be built and the crops
	grown. What would keep them there? Laws? No. A feeling of ownership,
	perhaps.
	Economics doesn't deal in "brain drain", but it sees the results of it.
	At the end of the day, every developing nation has to look at what it
	owns and what it doesn't own, and leverage it to get ahead - just as
	China is doing, just as India is doing, just as Venezuala is doing, just
	as Brazil is doing... A broad perspective is needed that extends beyond
	economics alone. After all, if economists could have solved all the
	problems, they would have already.
	-- George

Figure 15 Continued

| 8 | Subject: [icacaribbean] Re: Wireless carrier sees potential in Haiti (fwd)
From: Gerry
Date: Wed, 22 Jun 2005 14:57:08 -0500
To: "Caribbean ICT virtual community CIVIC"
<icacaribbean@dgroups.org>

> > There's no link that exists between Republica Dominicana and Haiti?
It's sensible that there should be...

Actually, there's one company that, instead of having a satellite link
with a North American company, has a radio link with Tricom in DR on
their fiber optics network, but there are no wired connexions.

> > The trucks go from Santo Domingo across
> > the frontier carrying goods, I don't see why there wouldn't be a wire
> > hanging around somewhere. Of course, that enters the politics of the
> > island, and from what I have seen and heard, Haiti and Republica
> > Dominicana aren't always good neighbours (English understatement).

Right, and things are getting worse...

> > Right. But I would also think that it is in the interests of the people
> > of Haiti that their government hold their infrastructure in trust, and
> > that operators lease the infrastructure instead. That gives leverage to
> > the government, which at least in theory is supposed to represent the
> > theory.

That's what it should be. Unfortunately, public companies, particularly
the telecom company, has a really bad history, which renders the
consortium solution more 'desirable' in people's eyes...

> > Economics doesn't deal in "brain drain", but it sees the results of it.
> > At the end of the day, every developing nation has to look at what it
> > *owns* and what it doesn't own, and leverage it to get ahead - just as
> > China is doing, just as India is doing, just as Venezuala is doing, just
> > as Brazil is doing... A broad perspective is needed that extends
beyond economics alone. After all, if economists could have solved all the
> > problems, they would have already.

Well, some things you say here are questionable, but the point wasn't to
confront economic theories. The digression on economics was just to
suggest a methodology on how to make the choices.
Indeed, we can admire those countries for their effort to be the master
of their destiny.
Gerry |

Figure 15 Continued

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