Virtual Group Dynamics and Social Networks

a.a. 2016-2017

Dr. Andrea Guazzini
Department of Education and Psychology
and Centre for the Study of Complex Dynamics (CSDC)
University of Florence

Contacts
e-mail: andrea.guazzini@unifi.it - andrea.guazzini@gmail.com
website: http://virthulab.complexworld.net/

Understanding our online behaviour

Groups and Computer-.Mediated Communication

The social and psychological dynamics of group collaboration have lead to the development and refinement of most theories of CMC. Research in wide ranging domains, from knowledge-sharing to online personal relationships, have their roots in the dynamics of group interaction in online settings.

- A common rationale for the use of groups for decision-making and problem-solving via the internet, is that **groups make better decisions than individual when facing complicated problems** (Schweiger & Sandberg, 1989)

- **High-quality decisions by group facing complex**, ambiguous situations often **require multiple perspectives** (Hoffman & Maier, 1961; Triandis, Hall & Ewen, 1965). the **expression of contrary viewpoints** (Nemeth, 1986), and the **evaluation of multiple alternatives** (Schweiger, Sandberg & Ragan, 1986)

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Therefore it is critical for online groups, formed in order to capitalize on diversity, not only to share the information contributed by all members, but to process this information effectively, in order to realize these potential benefits

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Group Formation and Impression Development

When groups first meet, their members form initial impressions of one another base on their nonverbal characteristic and the content of their self-disclosures. First impressions tend to be fairly stereotypical, and they tend to develop into different degrees of attraction among members.

- **The absence of nonverbal cues** about one another's physical characteristics actually **has the potential to magnify the attraction** members experience toward one another.

- The social identification model of deindividuation effects (SIDE), argues that **when groups operate through CMC, the absence of visual cue about one another promotes a feeling of depersonalization** (Walther & Carr, 2010)

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Group Formation and Impression Development

● From one side, **the absence of nonverbal cues in online groups** should interfere with impression formations, and such **groups would be impersonal and sterile** (Kieasler, Siegel & Macguire 1984)

● From another side, g**roup members experiencing depersonalization but aware of some common characteristics they all share or they know** (e.g., they are all psychology students), **are subjected to an overarching social identity leading them to experience a common link**.

The combination of not sensing interindividual differences, and sensing and overarching similarity to one another by virtue of belonging to a supergroup identity, may lead online group members to form exceptionally strong attraction to the group.

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-Mediated Communication

Group Formation and Impression Development

Research on SIDE model has generally involved experiments manipulating the two factors, visual anonimity and type of identification, in online groups.

- Such research has produced predicted interaction effects of visual anonimity/ identifiability by group/personal identity, with **conditions involving both visual anonimity and group identity providing the greatest scores on attraction (Lea, Spears & De Groot, 2001)**

- In CMC groups, **the more frequently a group member participated the more the others liked the member** (Weisband & Atwater, 1999)

- **In FTF interactions there was no significant relationship between participation frequency and liking**, and it appears that liking may be based on idiosyncratic characteristics. **At the contrary in CMC groups the more protypical a member is the more well liked that person is**.

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Group Formation and Impression Development

SIP

The social information processing (SIP) theory of CMC describes how people get to know one another individually online despite the absence of nonverbal cues. The SIP theory proposes that when nonverbal cues are unavailable, communicators adapt their interpersonal (as well as instrumental) communication to whatever cues remain available through the channel that they are using, such as emoticons (Derks, Bos & Von Grumbkow, 2007), and language content and styke characteristics

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Task and Socioemotional Communication

A variety of perspectives on small group interaction point out that group decision-making requires a balance of at least two types of communication.

- *The first, task-oriented communication, includes messages by which group members advance the exchange of information they need, to define the problem and its requirements, to articulate potential solutions, and to deliberate over the relative merits of alternatives.*

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Task and Socioemotional Communication

A variety of perspectives on small group interaction point out that group decision-making requires a balance of at least two types of communication.

• *The second type of communication, socioemotional communication, focuses on the emotional and social processes in groups, such as expressing agreement or disagreement, adding levity, and negative exchanges such as blming or insults. Wheter theorists refer to these message types as task versus socioemotional (Bales 1950) or instrumental versus maintenance messages (McGrath, 1984).*

Most approaches to small group interaction specify that both types are necessary for a productive and cohesive group.

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Task and Socioemotional Communication

Communicating online without nonverbal cues or a sense of individuality might dampen users' emotional orientation, leading them to forego socioemotional communication in online groups (Hiltz, Johnson & Turoff, 1986)

- **When online groups meet using real-time**, text based discussion systems, and they are provided little time to reach a group decision, members **exhibit less socioemotional communication, and generate task-oriented messages almost exclusively**.

- Most studies found that the lack of **socioemotional responses in short-term in online groups was associated with reduced frequency and/or quality of decision.making** (Walther, 1996)

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Task and Socioemotional Communication

- **Group members take the emotional impuses they would normally express via nonverbal cues on a FtF basis, and translate them inot verbal (language) behaviours online** (Walther, Loh, & Granka's, 2005)

- **CMC users quite naturally adapt to the change in channels** when it come to expressing socioemotional messages.

- **When interaction time is constrained,** online groups tend to exhibit **more task orientation** than social orientation.

- **The amount of time pressure that online groups experience is directly related to the proportion of socioemotional communication their members exchange**: when online groups perceive they have little time time reach a decision, they exchange less socioemotional messages (Reid, Ball, Morley & Evans, 1997)

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Trust in Small Group Relations

Walther and Bunz (2005) devised a set of rules for virtual groups, adherence to which would help online groups make up for the decrements in information and rate of communication in CMC compared to FtF communication, and foster trust in online groups.

1. The first rule of Virtual Groups is *Start Immediately* : because information exchange in CMC operates at a slower rate than FtF communication.

2. The second is *Communicate frequently* : to compesate the relatively slow information exchange in CMC, by communicating a great deal.

3. Rule three is to *Multitasking* getting organized and generating substantive contributions

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Understanding our online behaviour

Groups and Computer-.Mediated Communication

Trust in Small Group Relations

4. The fourth rule is *Overtly acknowledge having read one another'smessages*

5. The fifth rule is *be explicit about what you are thinking and doing*

6. Rule six suggests *Make interim deadlines and stick to them*

The experimental evidences of the Blunz model (2005) suggest from one side the utility of the rules for virtual groups, and from the other they show that online groups can accomodate for the information gap that CMC imposes, by invoking alternative, compensatory behaviors.

Amichai-Hamburger, Y. (2013). *The social net*. Oxford University Press.

Groups and communities: characterizing online groups

Our collective notions of what constitutes a group have changed radically in the past 15 years.
Traditional boardroom notions of groups interacting face-to-face and having size and membership constraints have yielded to perspectives that account for the varieties of groups made possible by new technologies.

The now omnipresent miscellany of information and communication technologies (from hand-held devices to laptops to videoconference rooms) provide a variety of channels (audio, video, text and graphics) that allow groups to move away from the conventional 'same time, same place' model of face-to-face groups to being 'all the time, everywhere', if so desired.

Reference: Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.

Groups and communities: characterizing online groups

Our collective notions of what constitutes a group have changed radically in the past 15 years.

The lack of time, space and other accessibility constraints opens membership to geographically and culturally distributed participants.

Internet-based newsgroups, such as the thousands of support groups in existence, for example, can have literally hundreds of participants interacting asynchronously (Alexander et al. 2003).

Reference: *Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.*

Groups and communities: characterizing online groups

The growth of online groups has been explosive, in both social and work life.

- In 2001, *90 million Americans used the Internet to make contact with some type of online group* (e.g., trade/professional groups, hobby/interest groups, community groups, support groups)
- On average, each user made contact *with four different online groups* (Horrigan et al. 2001).
- In 2002, taking part in an online group was a daily activity for approximately *4.1 million Americans* (Pew Internet Project 2004).
- The presence of networked, group-based technologies at worksites is now commonplace.
- *Nearly half of the managers surveyed reported working in a virtual team* (Training Journal Staff 2003).
- Statistics on computer network utilization indicate that in the year 2000 75 per cent of manufacturing organizations provided access to the Internet and 40 per cent used an intranet (US Bureau of the Census 2002).

Reference: Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.

Groups and communities: characterizing online groups

The growth of online groups has been explosive, in both social and work life.

The growth in online groups is not just in sheer number, but also in variety.

- For example in *local area network (LAN) parties*, a group of friends may meet at a central location and connect their computers to form a network and play an online game; thus, members are co-present but interact virtually (Warner 2000).
- In *flash mobs,* members – who may otherwise be strangers – interact online until signalled to appear in person at a given location for some often ephemeral purpose, such as a rally for a political candidate (Dell 2004; McFedries 2003).
- And with 1.07 billion expected worldwide Internet users in 2005, an estimated growth rate of 125 per cent from 2000–2004 alone, it is likely that the *number, form and nature of online groups will continue to grow* (ClickZ Stats 2004; Computer Industry Almanac 2004; Internet World Stats 2004).

Reference: Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.

Groups and communities: characterizing online groups

The growth of online groups has been explosive, in both social and work life.

The proliferation of information and communication technologies has fostered dramatic *growth in both the number and variety of online groups* over the past 15 years.

Such growth necessitates a *more sophisticated language for describing and capturing the diversity of online groups* that moves away from traditional conceptualizations of online groups.

Reference: Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.

## *Groups and communities: characterizing online groups*

Definition of online groups

We define a group as an entity comprised of people having interdependent goals, who are acquainted, interact with one another and have a sense of belonging associated with their membership (Hollingshead and Contractor 2002).

The term *'online groups'* refers to groups using information and communication technologies commonplace on the Internet, as well as other computer-mediated communication tools such as knowledge management systems used on local networks (e.g. Lotus Notes©). Generally, it is assumed that the technology used by online groups is primarily the Internet-based tools (e.g. email, chat tools, websites and newsgroups), with no to occasional use of other tools.

Reference: *Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.*

Groups and communities: virtuality
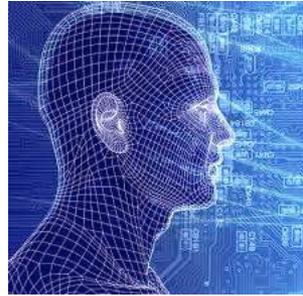
What makes a group 'virtual'?

Traditionally, researchers viewed groups as either virtual or face-to-face. Face-to-face groups were physically co-present; virtual groups were geographically and/or temporally distributed.

As more and more social and organizational groups have embraced technologies such as email, blackberries and mobile phones, it is difficult to find a group that meets solely face-to-face. As a result, some contemporary researchers argue that

....."virtuality is a matter of degree; some groups are more 'virtual' than others."

Others suggest that comparing face-to-face groups to online groups leads researchers to ignore the unique qualities of online groups (Wilson and Peterson 2002).

Reference: Joinson, A. (2007). Oxford handbook of internet psychology. Oxford University Press.

Groups and communities: virtuality
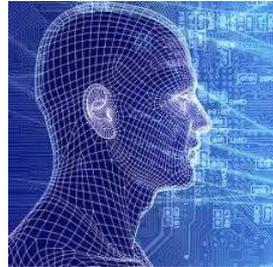
What makes a group 'virtual'?

Bell and Kozlowski 2002's framework:

Spatial configuration and communication media differentiate *conventional teams* (proximal, face-to-face communication) from *virtual teams* (distributed, technology-mediated communication). The framework further distinguishes degrees of virtuality based on *member roles* (multiple vs. singular), *lifecycle* (discrete vs. continuous), *boundaries* (multiple vs. singular) and *temporal distribution* (distributed vs. real time).

Griffith et al. 2003's Framework

Describes teams as more or less virtual based on three dimensions, *level of technology* support (low to high), *percentage of time apart* on task and *physical distance* (close to far). From these dimensions, three types of teams emerge: *traditional* (i.e. face-to-face), *virtual* (all time on task spent apart) and *hybrid*, which mixes traits of the two other types of teams.