



Corso di
***Dinamiche dei Gruppi Virtuali e dei Social
Networks***
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Topic 009

Social Cognition on the Web

Module 1

Netified: Social Cognition in Crowds and Clouds

Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

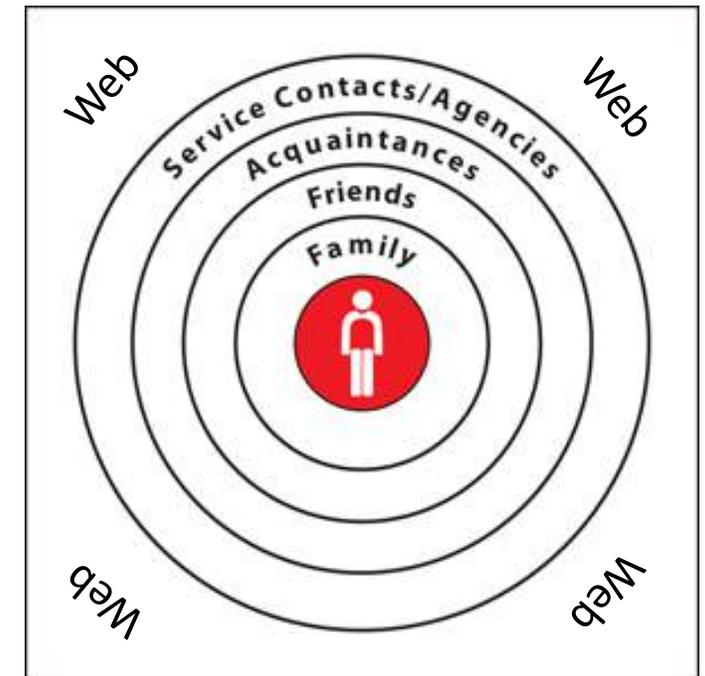
Prolegomena

While the early years of the Internet were about connecting documents by hypertext or connecting web sites and information resources by links, recent years were about linking the digital representations of people in a variety of ways. This social web portrays our social ties, activities, and interests and has substantial consequences regarding social cognition.

Experimental Results

ICTs as a New Social Layer

Technological systems can be defined as a new Social Layer (A new social operating system), characterized by complex structure, evolution, and deep interaction with societal and social consequences (Bauer, Patrick, 2004).



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Module 1 - Netified: Social Cognition in Crowds and Clouds

Prolegomena

Intensive use of Internet during the 1990s for collaborative purposes generates the so-called Web 2.0 applications (O'Reilly, 2007)

Theoretical Key Concept

Crowd and Clouds

These are platform that host content provided by users, where technology is a host to social and intellectual activity

Theoretical Key Concept

Netification

Online social platforms catalyzed the process of netification in which thoughts, conversations, creativity, and relationships materialize on network applications where they persist, as well as await research

Theoretical Key Concept

Social Networking

Almost a quarter of the time people spend online is devoted to social networks where social interaction is a central attraction and motivation for activity (Nielsen Wire, 2011).



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Prolegomena

Intensive use of Internet during the 1990s for collaborative purposes generates the so-called Web 2.0 applications (O'Reilly, 2007)

Theoretical Key Concept

Crowd

On the web, a crowd is a networked social cognition, bringing together the minds and creativity of many people.



Theoretical Key Concept

Cloud

The cloud describes large amounts of information which can now be aggregated and always made accessible.



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Social Cognition: a brief introduction

Theoretical Key Concept

Social Cognition

SC describes the mutual influences between cognition and social life. Cognition is influenced fundamentally by social environment. Social facilitation (Guerin, 2009), social loafing (Forsyth, 2010), social roles, and mental representations has shown distinct social influences on cognitive ability and task performance (Kunda, 1999). Social Cognition is also about the cognitive underpinnings of social behavior (Devine, Hamilton, & Ostrom, 1994). In short, social cognition research explores the influence of the social environment on cognition, and of cognition on social behaviour.

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Social Cognition: a brief introduction

Theoretical Key Concept

Social cognition views individuals as being engaged most of the time in information processing, encoded from a social context, interpreted, elaborated, evaluated, inferred, and attributed.

Theoretical Key Concept

Heuristics

Judgement and behaviour can be the result of short-cuts known as heuristics.

Theoretical Key Concept

The main social processes in social cognition research have been attribution, attitude change, impression formation, social comparison, decision-making, and social construction of reality (Fulk, 1993).

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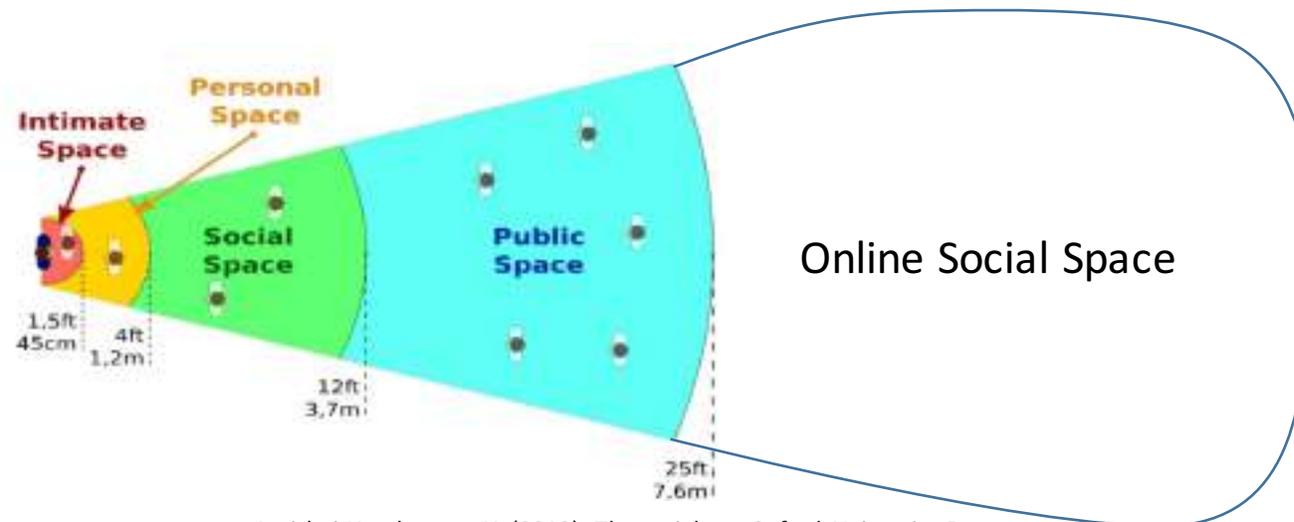
Module 1 - Netified: Social Cognition in Crowds and Clouds

Social Cognition: a brief introduction

Theoretical Key Concept

The Online Social Space

The computer mediated social space is characterized variously. The online environment defines new loci, within which new rules for social behaviour may be defined.



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

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Social Cognition: The Bubble Effect

Social Cognition is important in searching for information and organizing our knowledge.

Theoretical Key Concept

The Importance of Information Dynamics On-line

Information bonds people online (Seely Brown & Duguid, 2000)

Engagement with information is a form of social activity, it serves as cultural glue, be it via reading, listening, speaking, or reviewing.

In itself just an evolutionary stable trait of human beings.



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

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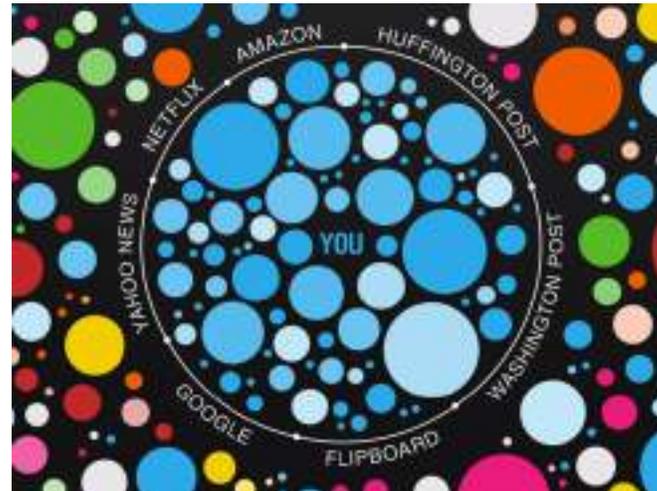
Social Cognition: The Bubble Effect

Social Cognition is important in searching for information and organizing our knowledge.

Theoretical Key Concept

Filter Bubble Effect

“The Filter Bubble” is a phenomenon which defines the effect produced by the personalization by search algorithms, that confines our cognition to the limits envisioned by search software developers (Pariser, 2011)



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

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Social Cognition: The Bubble Effect

Social Cognition is important aiding subjects to detect Social Borders and Communities (i.e., Social Identity)

Theoretical Key Concept

Glocalization

Communities have shifted to a “Glocalized” state, where both local and global connections are important (Wellman, 2002).



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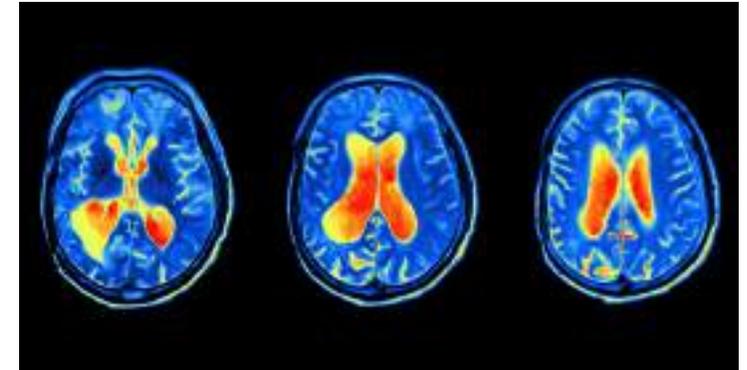
Social Cognition: The Bubble Effect

Social Cognition support even the understanding of how the brain would be modified by new social settings.

Experimental Results

Neurophysiological Impact of Web Search Engine

Other evidences based on academic research claim that our brain is changing, an actual change in cognitive abilities, due to our reliance on Google's search services (Carr, 2011; Sparrow, Liu, & Wegner, 2011).



Experimental Results

New Cerebral Functional Patterns

Our brain may start to exhibit a new pattern due to web surfing (Sparrow et. al, 2011)

Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Social Cognition: Self Presentation

The internet provides numerous opportunities to affect what Goffman would call “the presentation of self” (Donath, 1999; Stone, 2001)

Experimental Results

On-Line Narcisistic Potential

*The construction of a personal home page, the introduction one is required to make when entering an online forum, the short descriptions many provide as **a rite of inclusion into various social software arenas**, the constant updates one posts to social networking sites (SNSs), and the profiles one accumulates for oneself willingly or not on a variety of online systems, all have **a narcissistic potential** (Mehdizadeh, 2009; Ong et al., 2011; Ryan & Xenos, 2011)*

Experimental Results

With the increasing prevalence of SNSs where anonymity is almost nonexistent, online deception become less prevalent than in the past (Zhao, Grasmuck, & Martin, 2008).

Topic 009 - Social Cognition on the Web

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Social Cognition: Self Presentation

The internet provides numerous opportunities to affect what Goffman would call “the presentation of self” (Donath, 1999; Stone, 2001)

Experimental Results

Faultiness of On-line Impression Formation

Pioneristic works concluded that online impression formation is faulty and wrought with stereotypical and prejudiced assumptions used to “fill in the blanks” (Albright, 2001) of the reduced social cues, and terms such as “fluid identities” (Turkle, 1995).



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Social Cognition: Self Presentation

The internet provides numerous opportunities to affect what Goffman would call “the presentation of self” (Donath, 1999; Stone, 2001)

Experimental Results

Self-Presentation and Self Identity

*More recent research approached these questions in a more nuanced manner, and showed that online self-portrayals are important, that these acts of **online self-presentation actually influence the construction of self identity**, and that gaps between these portrayals and what others perceive as the truth have significant negative consequences (Boucher, Hancock, & Dunham, 2008; DeAndrea & Walther, 2011)*



Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Social Cognition: Self Presentation

The internet provides numerous opportunities to affect what Goffman would call “the presentation of self” (Donath, 1999; Stone, 2001)

Experimental Results

On-line Self-Presentation as a Strategic Process

*Research shows that senders sometimes try to **optimize their self-presentation by mentioning information they perceive as impressive, while holding back information which is less so** (Walther & Burgoon, 1992).*



Experimental Results

On-line Self Presentation as Continuous Process

*Impression formation is a **continuous process, often based on the combination of information attained over time from a variety of online and offline sources** (DeAndrea & Walther, 2011)*

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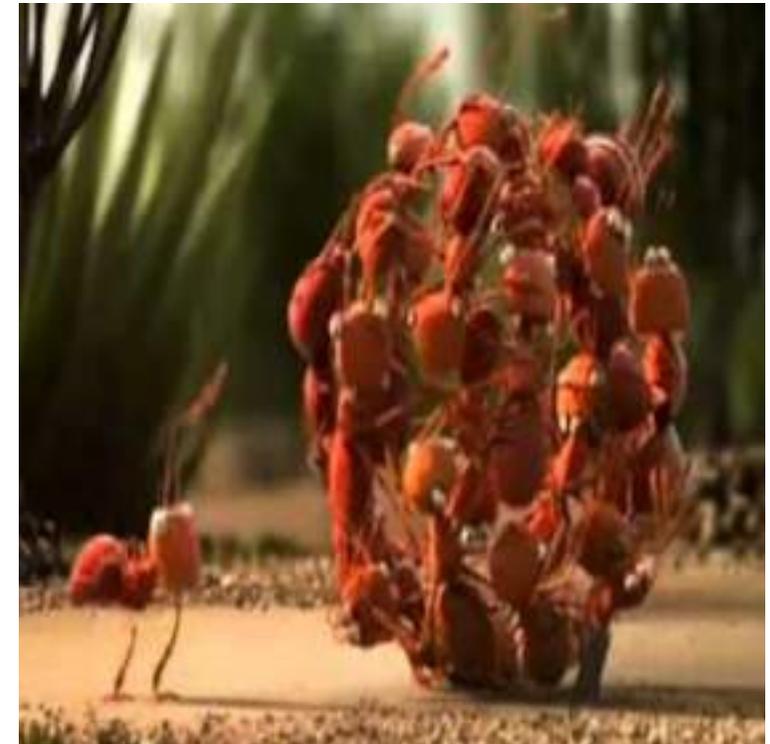
Social Cognition: Impression Formation

Online impression formation is complex and multifaceted, probably not less than offline impression formation.

Experimental Results

Multifactorial Nature of On-line Impression Formation

Online impression formation of members of SNS could be influenced not only by what they post about themselves, but also by what people they are linked with (“friends”) say about them, and by the physical appearance of these friends (Walther, Van Der Heide, Kim, Westerman, & Tong, 2008), or by the number of friends they are linked to (Tong, Van Der Heide, Langwell, & Walther, 2008).



Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Social Cognition: Impression Formation

Online impression formation is also influenced by the nonverbal clues which are available on-line.

Theoretical Key Concept

SIP and On-line Communication Dynamics

The Social Information Processing (SIP) theory posits that communicators exchange social information even through the content (e.g., emoticons), style, and timing of messages (on-line)", especially when the virtual setting affects (e.g., impaired, amplify) the communication ecology (Walther & Parks, 2002)



Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Social Cognition: Impression Formation

Chronemic Cues

Experimental Results

Chronemic (time related) cues, as well as a host of other CMC cues such as punctuation marks, asterisks, character repetitions, and capitalization (Kalman, & Gergle, 2010; Riordan & Kreuz, 2010)



Experimental Results

Chronemic cues such as the delays in response have been shown to influence impression formation, and to interact with other parameters such as communicator valence and status (Kalman & Rafaeli, 2011; Sheldon, Thomas-Hunt, & Proell, 2006; Walther & Tdwell, 1995)

Experimental Results

Moreover Chronemic feature is the best ICT factor, from a standard SNSs, allowing to predict the social closeness between interactors (Guazzini, et al. 2013)



Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Main Questions from the Module 009.1

Id	Question
009.1.1	Why the ICTs is considered a New Social Layer?
009.1.2	What's the Netification process?
009.1.3	What are the definitions of Crowd and Cloud?
009.1.4	Provide a general definition of Social Cognition.
009.1.5	What's the Filter Bubble Effect?
009.1.6	What's the Glocalization?
009.1.7	Why the Information Dynamics is so important for human beings?
009.1.8	What's the On-ne Narcisistic Potential?
009.1.9	Why the On-line impression formation has been considered faulty?
009.1.10	What's the most important relation between On-line Self Presentation and Identity?
009.1.11	Why the On-line Self-Presentation is said to can be Strategic and Continuous?

Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Main Questions from the Module 009.1

Id	Question
009.1.12	Why the On-line Impression Formation is said to be Multifactorial?
009.1.13	What's the Social Information Processing Theory (SIP) contribution to the understanding of On-line communication dynamics?

Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Main Questions from the Module 009.1

Id	Answers
009.1.1	ICTs as a New Social Layer - Technological systems can be defined as a new Social Layer (A new social operating system), characterized by complex structure, evolution, and deep interaction with societal and social consequences (Bauer, Patrick, 2004).
009.1.2	Netification - Online social platforms catalyzed the process of netification in which thoughts, conversations, creativity, and relationships materialize on network applications where they persist, as well as await research
009.1.3	Crowd - On the web, a crowd is a networked social cognition, bringing together the minds and creativity of many people. Cloud - The cloude describes large amounts of information which can now be aggregated and always made accessible.
009.1.4	Social Cognition - SC describes the mutual influences between cognition and social life. Cognition is influenced fundamentally by social environment. Social facilitation (Guerin, 2009), social loafing (Forsyth, 2010), social roles, and mental representations has shows distinct social influences on cognitive ability and task performance (Kunda, 1999). Social Cognition is also about the cognitive underpinnings of social behavior (Devine, Hamilton, & Ostrom, 1994). In short, social cognition research explores the influence of the social environment on cognition, and of cognition on social behaviour.
009.1.5	Filter Bubble Effect - “The Filter Bubble” is a phenomenon which defines the effect produced by the personalization by search algorithms, that confines our cognition to the limits envisioned by search software developers (Parisers, 2011)
009.1.6	Glocalization - Communities have shifted to a “Glocalized” state, where both local and global connections are important (Wellman, 2002).
009.1.7	The Importance of Information Dynamics On-line - Information bonds people online (Seely Brown & Duguid, 2000). Engagement with information is a form of social activity, it serves as cultural glue, be it via reading, listening, speaking, or reviewing. In itsel just an evolutionary stable trait of human beings.

Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Main Questions from the Module 009.1

Id	Answers
009.1.8	On-Line Narcisistic Potential - The construction of a personal home page, the introduction one is required to make when entering an online forum, the short descriptions many provide as a rite of inclusion into various social software arenas, the constant updates one posts to social networking sites (SNSs), and the profiles one accumulates for oneself willingly or not on a variety of online systems, all have a narcissistic potential (Mehdizadeh, 2009; Ong et al., 2011; Ryan & Xenos, 2011)
009.1.9	Faultiness of On-line Impression Formation - Pioneristic works concluded that online impression formation is faulty and wrought with stereotypical and prejudiced assumptions used to “fill in the blanks” (Albright, 2001) of the reduced social cues, and terms such as “fluid identities” (Turkle, 1995).
009.1.10	Self-Presentation and Self Identity - More recent reasearch approached these questions in a more nuanced manner, and showed that online self-portrayals are important, that these acts of online self-presentation actually influence the construction of self identity, and that gaps between these portrayals and what others perceive as the truth have significant negative consequences (Boucher, Hancock, & Dunham, 2008; DeAndrea & Walther, 2011)
009.1.11	On-line Self-Presentation as a Strategic Process - Research shows that senders sometimes try to optimize their self-presentation by mentioning information they perceive as impressive, while holding back information which is less so (Walther & Burgoon, 1992). On-line Self Presentation as Continuous Process - Impression formation is a continuous process, often based on the combination of information attained over time from a variety of online and offline sources (DeAndrea & Walther, 2011)

Topic 009 - Social Cognition on the Web

Module 1 - Netified: Social Cognition in Crowds and Clouds

Main Questions from the Module 009.1

Id	Answers
009.1.12	Multifactorial Nature of On-line Impression Formation - Online impression formation of members of SNS could be influenced not only by what they post about themselves, but also by what people they are linked with (“friends”) say about them, and by the physical appearance of these friends (Walther, Van Der Heide, Kim, Westerman, & Tong, 2008), or by the number of friends they are linked to (Tong, Van Der Heide, Langwell, & Walther, 2008).
009.1.13	SIP and On-line Communication Dynamics - The Social Information Processing (SIP) theory posits that communicators exchange social information even through the content (e.g., emoticons), style, and timing of messages (on-line)”, especially when the virtual setting affects (e.g., impaired, amplify) the communication ecology (Walther & Parks, 2002)

Module 2

On-line Groups: an introduction

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Characterizing On-line 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.



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Characterizing On-line Groups

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).



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Prolegomena

What are online groups and how do they compare with face-to-face groups? Many terms have been used to describe influential Internet-based interactions between several participants.

Theoretical Key Concept

On-Line Group “Classical” Classification

All social cognitive aspects of interacting with others as well as self-perception are repeated and compounded in online groups.

Virtual communities (Rheingold, 1993)

Virtual teams (Lipnack & Stamps, 2000)

Virtual groups (Wallace, 2001)

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Prolegomena

What are online groups and how do they compare with face-to-face groups? Many terms have been used to describe influential Internet-based interactions between several participants.

Theoretical Key Concept

Virtual Group “Classical Definition”

A virtual group refers to a group of individuals who socialize and interact adopting ICTs media. It requires, as the psychological groups in real life, the existence of social norms, roles, status, common goals, interdependency, and a feeling to belong to an entity characterized by a Social Identity.



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Prolegomena

What are online groups and how do they compare with face-to-face groups? Many terms have been used to describe influential Internet-based interactions between several participants.

Theoretical Key Concept

Virtual Team “Classical Definition”

A virtual team refers to a group of individuals who work together and rely on ICTs communication in order to collaborate. Powell, Piccoli and Ives (2004) define virtual teams as “groups of geographically, organizationally and/or time dispersed workers brought together by information and telecommunication technologies to accomplish one or more organizational tasks.” According to Ale Ebrahim et. al. (2009), virtual teams can also be defined as “small temporary groups of geographically, organizationally and/or time dispersed knowledge workers who coordinate their work predominantly with electronic information and communication technologies in order to accomplish one or more organization tasks.”



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Prolegomena

What are online groups and how do they compare with face-to-face groups? Many terms have been used to describe influential Internet-based interactions between several participants.

Theoretical Key Concept

Virtual Community “Classical Definition”

A virtual community is a social network of individuals who interact through specific social media, potentially crossing geographical and political boundaries in order to pursue mutual interests or goals. Some of the most pervasive virtual communities are online communities operating under social networking. Virtual communities all encourage interaction, sometimes focusing around a particular interest or just to communicate. Some virtual communities do both. Community members are allowed to interact over a shared passion through various means: message boards, chat rooms, social networking sites, or virtual worlds (Rheingold, 1993).



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Prolegomena

Some Virtual Human Entities have evolved into “groups” or “circles” in commercial SNSs such as Facebook and in Google+.

Experimental Results

Participation and Motivation Dynamics

Beyond the many unaware dynamics (e.g., social comparison, self development, social support, social validation), in general people say to participate in online groups for work, education, and leisure, acquiring, dissemination, and sharing information and knowledge, collaborating, and socializing (Haythornthwaite, 2007; McKenna, 2008; Rheingold, 1993).



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups features

Experimental Results

On-Line Socialization

Socialization occurs after people join a group, learning the norms and normative behaviour, which are partially communicated directly and explicitly, while other parts are implicit. Explicit norms are usually communicated by means of FAQs, or Answer to newcomers posts (Ahuja & Galvin, 2003; Burnett & Bonnici, 2003).



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Module 2 - On-line Groups: an introduction

On-line groups features

A central focus of research on online groups was on understanding the differences between traditional groups, and online groups. Why do people group online, how effective are online groups, and what influences this effectiveness?

Experimental Results

Norms and Interdependency

Like any group, online group too are social units in which the participants are interdependent, and behave accordingly to explicit and implicit social norms.



Experimental Results

Social Compensation, and Social Loafing

Online groups show, just like other groups, both examples of social compensation as well as social loafing, and even effects such as crowding and deindividuation have been documented (Spears, Postmes, Lea & Wolbert, 2002)

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Module 2 - On-line Groups: an introduction

On-line groups features: Lurking

Theoretical Key Concept

Virtual Social Loafing as Lurking

Lurking is a phenomenon quite recently revealed and defined as the behaviour of spending more or all time observing the group's goings on, without contributing.



Experimental Results

Lurking Diffusion

The reported proportion of lurkers varied from around the 90% to around the 50% (Katz, 1998; Mason, 1999; Nonnecke & Preece, 2000; Soroka, Jacovi, & Ur, 2003).

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups features: some medium effects

Like any medium, computers too are not neutral media (see Topic 001), and they influenced the message as it travels from sender to recipient.

Experimental Results

Humanization of Technology

Often, the inanimate computer is treated by its users as a person, and the spaces it depicts are perceived as real spaces (Reeves & Nass, 1996).



Experimental Results

HCI potential

This opens the door research about HCI (human computer interaction) as a tool to study the human mind and behaviour (Nass & Yen, 2010)

Experimental Results

HCI perspectives

The leading thinkers about HCI now advocates an approach to design that adds visceral and reflective layers to the functional layer (Norman, 2005, 2009, 2010)



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups features: some medium effects

Like any medium, computers too are not neutral media (see Topic 001), and they influenced the message as it travels from sender to recipient.

Experimental Results

Interactivity

Interactivity has proven to be one of the most important factors behind the successful design of HCI, considered as a variable describing a communication process, whether mediated or not (McMillan, 2006; Rafaeli, 1988; Rafaeli & Ariel, 2007).



Experimental Results

Interactivity Potential

*It focuses on the human need for meaningful responses, and suggests that **communication processes which are perceived as interactive have positive effects** such as **fostering engagement** (Ha & James, 1998), **increasing positive perceptions of brands advertising** (Marcias, 2013), and **heightening the sense of telepresence** (Coyle & Thorson, 2001).*

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups features: some medium effects

Agrowing portion of work in the postindustrial era is taking place in context of the knowledge economy or information society, and is performed by knowledge workers (Machlup, 1962; Porat, 1977)

Experimental Results

Knowledge Economy

*Human work is increasingly focused on producing knowledge goods
(Amichai_Hamburger, 2013)*



Experimental Results

Collapse of "Sane" Digital Divide

As a consequence the traditional physical divide between "work and home" is blurring (Lewis, 2010)

Experimental Results

Information Overload

Another consequence of the increasing ability for instant communication is the challenge of "information overload" (Eppler & Mengis, 2004), as well as of "Social information overload" (Lincoln, 2011)



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Module 2 - On-line Groups: an introduction

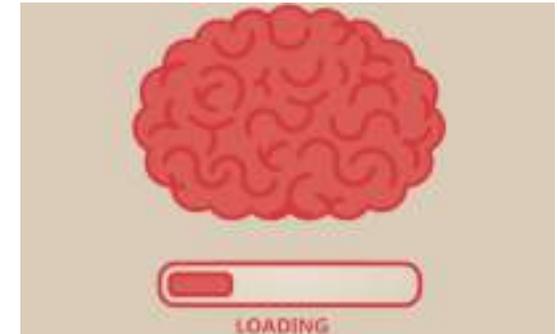
On-line groups features: some medium effects

Agrowing portion of work in the postindustrial era is taking place in context of the knowledge economy or information society, and is performed by knowledge workers (Machlup, 1962; Porat, 1977)

Experimental Results

Virtual Cognitive Overload

Effects of exceeding “cognitive processing load” limits are reported in large scale empirical measures of online behaviour (Jones & Rafaeli, 1999, 2000a, 2000b; Jones, Ravid, & Rafaeli, 2001a, 2001b; Sudweeks et al., 1998).



Experimental Results

Cyber-Crowding

At the extreme, online information overload as a social phenomenon may amount to a new form of crowding, with all the familiar social psychological attendants of such overpopulation.



Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups : a brief but intense history

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

Experimental Results

Pervasivity

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)

Experimental Results

Multigrouping

On average, each user made contact with four different online groups (Horrigan et al. 2001).

Experimental Results

Time Expensive

In 2002, taking part in an online group already was a daily activity for approximately 4.1 million Americans (Pew Internet Project 2004).

Experimental Results

Social Networks as a Common Place

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).

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups : a brief but intense hystory

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

Experimental Results

LAN

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).



Experimental Results

Flash Mobs

For example in 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).

Experimental Results

And already in the past (the far 2005)

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).

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups : a definition

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.

Theoretical Key Concept

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.

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

On-line groups : what's Virtuality?

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

Theoretical Key Concept

What makes a group 'virtual'?

...."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).

On-line groups : Bell and Kozlowski 2002's framework

Theoretical Key Concept

What makes a group 'virtual'?

*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).*



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Module 2 - On-line Groups: an introduction

On-line groups : Griffith et al. 2003's Framework

Theoretical Key Concept

What makes a group 'virtual'?

Griffith et al describe teams as more or less virtual based on three dimensions:

- *level of technology support (low to high),*
- *percentage of time apart on task*
- *physical distance (close to far).*

From these dimensions, three types of teams emerge:

1. *traditional (i.e. face-to-face),*
2. *virtual (all time on task spent apart)*
3. *hybrid, which mixes traits of the two other types of teams.*



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Module 2 - On-line Groups: an introduction

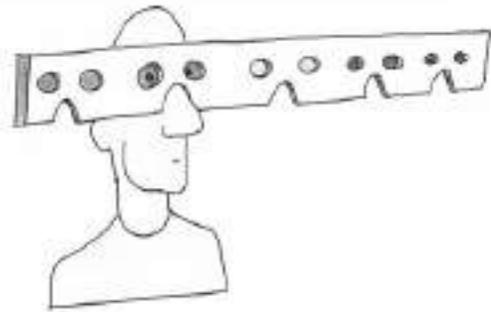
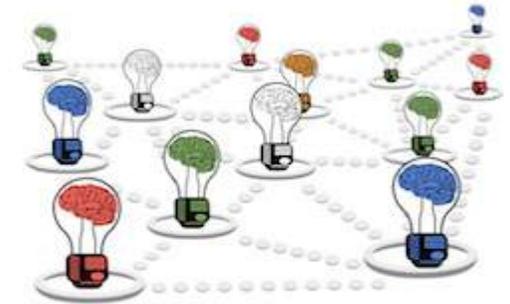
On-line groups : computer mediated communication

The social and psychological dynamics of group collaboration have led 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.

Experimental Results

Collective Intelligence Factor

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)



Experimental Results

Multiple Perspective Potential of Virtual Groups

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)

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

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On-line groups : 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.

Experimental Results

First-Attraction Magnification Effect

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



Experimental Results

Depersonalization

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)

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Module 2 - On-line Groups: an introduction

On-line groups : formation and impression development

The absence of nonverbal cues can represent both an improving as well as an impairing factor.

Experimental Results

Bad Side

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)



Experimental Results

Good Side

From another side, group 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.

Theoretical Key Concept

Internet Supergroup Identity Potential

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.

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Module 2 - On-line Groups: an introduction

On-line groups : formation and impression development

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

Experimental Results

Anonymity and Attraction

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



Experimental Results

Participation and Attraction

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



Experimental Results

Stereotypes and Attraction

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 prototypical a member is the more well liked that person is.



On-line groups : Task and Socioemotional Communication

Theoretical Key Concept

Online meetings and 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 style characteristics.

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Module 2 - On-line Groups: an introduction

On-line groups : Task and Socioemotional Communication

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

Theoretical Key Concept

Task-Oriented 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.

Theoretical Key Concept

Socioemotional 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 blaming or insults. (or: instrumental versus maintenance messages, for McGrath, 1984).

Even in Virtual Environments most approaches to small group interaction specify that both types are necessary for a productive and cohesive group.

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Module 2 - On-line Groups: an introduction

On-line groups : 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)

Experimental Results

Socioemotional communication and quality of Decision Making

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)



Experimental Results

Virtual Settings Affordance

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

Experimental Results

Users Adaptability

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



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Module 2 - On-line Groups: an introduction

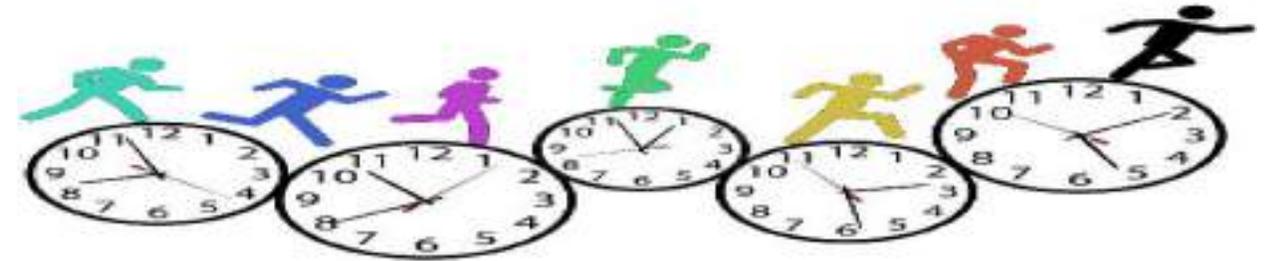
On-line groups : Task and Socioemotional Communication

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)

Experimental Results

Time Pressure reduces Socioemotional Communication (even) On-line

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.



Experimental Results

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 to reach a decision, they exchange less socioemotional messages (Reid, Ball, Morley & Evans, 1997).

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Module 2 - On-line Groups: an introduction

On-line groups : 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.

Theoretical Key Concept

Walther and Bunz Model of Digital Trust

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 compensate the relatively slow information exchange in CMC, by communicating a great deal.*
3. *Rule three is to **Multitasking** getting organized and generating substantive contributions*
4. *The fourth rule is **Overtly acknowledge** having read one another's messages*
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 accommodate for the information gap that CMC imposes, by invoking alternative, compensatory behaviors.

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Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Question
009.2.1	What was the classical classification of On-line groups at the beginning of the 21st century?
009.2.2	What was the classical definition of Virtual Community proposed by Rheingold (1993)?
009.2.3	What was the definition of Virtual Team?
009.2.4	What was the definition of Virtual Group?
009.2.5	Does the Social Norms Dynamics differ between Real and Virtual groups?
009.2.6	Can Social loafing and social compensation dynamics affect even virtual groups?
009.2.7	What's the definition and diffusion of Lurking On-line?
009.2.8	What's the knowledge economy?
009.2.9	What are the Information and Virtual Cognitive Overload?
009.2.10	What's the definition of, and what factors determine, the "Virtuality" of a Group within the framework of Bell and Kozlowski?
009.2.11	What factors determine, the "Virtuality" of a Group within the framework of Griffith et al., and what kind of groups such a framework describes?

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Question
009.2.12	What are the Collective Intelligence Factor and the Multiple Perspective Potential of Virtual Groups?
009.2.13	What's the first-attraction magnification effect?
009.2.14	What are the bad and the good aspects of absence of non-verbal cue, during the virtual group formation?
009.2.15	What's the Internet Supergroup Identity Potential?
009.2.16	In Virtual Group formation, what's the relation between Anonymity, Participation and Stereotypes with Attraction dynamics?
009.2.17	Describe how The social information processing (SIP) theory describes how people get to know one another individually online despite the absence of nonverbal cues?
009.2.18	Define the Task-Oriented and the Socioemotional Communication within a (small) psychological group.
009.2.19	What's the relation between Socioemotional communication and quality of decision making within small virtual groups?
009.2.20	What's the relation between Time Pressure and Socioemotional Communications in Virtual Groups?
009.2.21	Describe the Walther and Bunz Model of Digital Trust.

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Answers
009.2.1	On-Line Group “Classical” Classification - All social cognitive aspects of interacting with others as well as self-perception are repeated and compounded in online groups. (I) Virtual communities (Rheingold, 1993), (II) Virtual teams (Lipnack & Stamps, 2000), (III) Virtual groups (Wallace, 2001)
009.2.2	Virtual Community “Classical Definition” - A virtual community is a social network of individuals who interact through specific social media, potentially crossing geographical and political boundaries in order to pursue mutual interests or goals. Some of the most pervasive virtual communities are online communities operating under social networking. Virtual communities all encourage interaction, sometimes focusing around a particular interest or just to communicate. Some virtual communities do both. Community members are allowed to interact over a shared passion through various means: message boards, chat rooms, social networking sites, or virtual worlds (Rheingold, 1993).
009.2.3	Virtual Team “Classical Definition” - A virtual team refers to a group of individuals who work together and rely on ICTs communication in order to collaborate. Powell, Piccoli and Ives (2004) define virtual teams as "groups of geographically, organizationally and/or time dispersed workers brought together by information and telecommunication technologies to accomplish one or more organizational tasks." According to Ale Ebrahim et. al. (2009), virtual teams can also be defined as "small temporary groups of geographically, organizationally and/or time dispersed knowledge workers who coordinate their work predominantly with electronic information and communication technologies in order to accomplish one or more organization tasks."
009.2.4	Virtual Group “Classical Definition” - A virtual group refers to a group of individuals who socialize and interact adopting ICTs media. It requires, as the psychological groups in real life, the existence of social norms, roles, status, common goals, interdependency, and a feeling to belong to an entity characterized by a Social Identity.

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Answers
009.2.5	Norms and Interdependency - Like any group, online group too are social units in which the participants are interdependent, and behave accordingly to explicit and implicit social norms (<i>Spears, Postmes, Lea & Wolbert, 2002</i>).
009.2.6	Social Compensation, and Social Loafing - Online groups show, just like other groups, both examples of social compensation as well as social loafing, and even effects such as crowding and deindividuation have been documented (<i>Spears, Postmes, Lea & Wolbert, 2002</i>)
009.2.7	Virtual Social Loafing as Lurking - Lurking is a phenomenon quite recently revealed and defined as the behaviour of spending more or all time observing the group's goings on, without contributing. The reported proportion of lurkers varied from around the 90% to around the 50% (<i>Katz, 1998; Mason, 1999; Nonnecke & Preece, 2000; Soroka, Jacovi, & Ur, 2003</i>).
009.2.8	Knowledge Economy - Human work is increasingly focused on producing knowledge goods (<i>Amichai_Hamburger, 2013</i>)
009.2.9	Information Overload - Another consequence of the increasing ability for instant communication is the challenge of "information overload" (<i>Eppler & Mengis, 2004</i>), as well as of "Social information overload" (<i>Lincoln, 2011</i>) Virtual Cognitive Overload Effects of exceeding "cognitive processing load" limits are reported in large scale empirical measures of online behaviour (<i>Jones & Rafaeli, 1999, 2000a, 2000b; Jones, Ravid, & Rafaeli, 2001a, 2001b; Sudweeks et al., 1998</i>).
009.2.10	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: (1) member roles (multiple vs. singular), (2) lifecycle (discrete vs. continuous), (3) boundaries (multiple vs. singular) and (4) temporal distribution (distributed vs. real time).

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Answers
009.2.11	Griffith et al describe teams as more or less virtual based on three dimensions: (I) level of technology support (low to high), (II) percentage of time apart on task, (III) physical distance (close to far). From these dimensions, three types of teams emerge: (1) traditional (i.e. face-to-face), (2) virtual (all time on task spent apart), (3) hybrid, which mixes traits of the two other types of teams.
009.2.12	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. Collective Intelligence Factor - 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). Multiple Perspective Potential of Virtual Groups - 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)
009.2.13	First-Attraction Magnification Effect - The absence of nonverbal cues about one another's physical characteristics actually has the potential to magnify the attraction members experience toward one another
009.2.14	Bad Side - 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). Good Side - From another side, group 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.
009.2.15	Internet Supergroup Identity Potential - 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.

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Answers
009.2.16	Anonymity and Attraction - Such research has produced predicted interaction effects of visual anonymity/identifiability by group/personal identity, with conditions involving both visual anonymity and group identity providing the greatest scores on attraction (Lea, Spears & De Groot, 2001). Participation and Attraction - In CMC groups, the more frequently a group member participated the more the others liked the member (Weisband & Atwater, 1999). Stereotypes and Attraction - 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 prototypical a member is the more well liked that person is.
009.2.17	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 style characteristics.
009.2.18	Task-Oriented 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. Socioemotional 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 blaming or insults. (or: instrumental versus maintenance messages, for McGrath, 1984).
009.2.19	Socioemotional communication and quality of Decision Making. 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)

Topic 009 - Social Cognition on the Web

Module 2 - On-line Groups: an introduction

Main Questions from the Module 009.2

Id	Answers
009.2.20	Time Pressure reduces Socioemotional Communication (even) On-line - 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. 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 to reach a decision, they exchange less socioemotional messages (Reid, Ball, Morley & Evans, 1997).
009.2.21	Walther and Bunz Model of Digital Trust - The first rule of Virtual Groups is Start Immediately : because information exchange in CMC operates at a slower rate than FtF communication. The second is Communicate frequently : to compensate the relatively slow information exchange in CMC, by communicating a great deal. Rule three is to Multitasking getting organized and generating substantive contributions. The fourth rule is Overtly acknowledge having read one another's messages. The fifth rule is be explicit about what you are thinking and doing. Rule six suggests Make interim deadlines and stick to them