

## LUMINAL POSSIBILITIES FOR THE STUDY OF VIRTUAL SYSTEMS, GLOBAL EFFECTS, AND LOCAL PRACTICES

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### Abstract

A lot of attention and research is already being paid to virtuality from different disciplines. The field of Information Systems (IS) is particularly interested in the impact of virtual systems on management practice: virtual teams, organizations, markets, etc. This research gives us many ways of thinking about the global impacts of Information and Communication Technology (ICT) - the supposed virtual reality maker - on local practice. These local practices include work practices, communication, trust and collaboration.

However, this work often involves different assumptions about the nature of local and global, and the role and impact of ICT on virtuality. For example, some analysts suggest that Internet chat and e-mail, which support ICT, can connect participants with several new people and cultures, building a "global village" of like-minded people, sharing the same problems.

Keywords: virtual teams, Information and Communication Technology (ICT), global and local impacts.

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### 1. Introduction

Many analysts suggest that local participant settings hinder the endless and productive use of ICT, limiting the benefits of virtual teams, virtual work, and the sharing of organizational knowledge.

The relationship between local, global, virtual and ICT shows an increase in the number of individuals who can work together and influence each other (a kind of global), who can then initiate endless possibilities for changing individual (local) practice. In the first case, the global capabilities of ICT - to allow contact between many individuals - expand the possibilities of influencing one individual to another and may be influenced by other local practices and ideas. In the second case, the global capabilities of ICT can reorganize work and knowledge by overcoming obstacles from local settings. Despite the different emphases, the assumptions about ICT and virtuality are the same - that ICT produces several virtual and global opportunities for individuals to be able to influence and influence others, and to change their local circumstances and their work arrangements. The aim of this paper is to study three typical assumptions about the local, global, virtual role and the role of ICT in virtuality. The result is a vast array of opportunities for research and practice in virtual research. Doing so reveals several luminal virtual rooms - possible spaces between global, local and ICT, for the production and formation of virtuality.

## 2. Theoretical framework

### Defining the concept and the determination of methods of work

I will mention the luminal possibility for virtual research, which comes from Shields (2006), and his assumptions about local, global, virtuality, and various electronic and non-electronic media. This luminal possibility suggests that the virtual is not connected to an electronic medium, but is produced by absorbed individuals, inevitably working in specific and local environments.

The result is a local produced by the absorbed individual using different channels - electronic and non-electronic - to influence and be influenced by topics, groups and individuals that are always virtual, even in face-to-face contacts. This means an important role for the individual in creating locals from this combination of virtual concepts and themes (global) in their specific settings (local)<sup>1</sup>.

The virtual is not a new unrealistic influence, through electronic systems, that is in contact with the real (Robbie, Schweig, and Jean, 2003), but is a symbolic system like many other objects in an individual's settings, communicating with other systems that produce symbols in the individual settings.

Shields (2006) suggests that virtuality is as old as the spoken word. In addition to the dictionary definition of "what is so is not really", his model of how virtual interaction with the real crosses the present (the present) and the future (the possible) with the real and the ideal. The result is a simple model of virtual layers, between the concrete (real, current), the possible (real, future), the virtual (ideal, present) and the abstract (ideal, future). For example, a "virtuous" individual mixes different virtual, concrete, possible, and abstract categories. The "virtuous" individual is associated with specific behaviours, suggesting that others consider them "virtuous" - the virtual concept designates and simplifies these specific behaviours, but is also further transformed through the abstract concept of virtue, informing individuals about future behaviours and the concept of virtue. This then suggests possible behaviours that we may anticipate in the future.

### Research discussion

Typical assumptions about local and global characteristics, and their relationship to ICT, arise through the dichotomous (divided) dimensions of previous characteristics. For example, the local is considered to include: the current room, synchronized time, attentive individuals, real matter, and a strong identity. The global is often the opposite: absent space, asynchronous communication, non-nominal individuals, unrealistic matter, and a weak identity. In many cases, virtual systems are associated with global and ICT use, and non-virtual systems with local and face-to-face communication<sup>1</sup>. The reasons for these typical positions stem from the divided concepts of virtual and non-virtual channels - traditional face-to-face against other electronic channels, such as telephone, email, web chat, etc. Face-to-face communication is considered rich because it includes the absorbed possibilities in the local: present, synchronized, attentive, realistic and strong. Virtual channels, typically ICT-based channels, have features that produce a lack of absorption: the person is absent, communication is asynchronized, the recipient may be inattentive, and there is unrealistic (i.e., virtual) matter in communication and presence. This increases the chances of poor identification among communicative individuals.

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<sup>1</sup> Hasemann, W.D. и Nazareth, D.L.: Proceedings of the Fifth Americas Conference on Information systems (AMCIS'99), Milwaukee, WI, 13-15.10.2009, pg. 115-117.

## Description

This research raises the question of whether local, as defined by absorption, can only depend on face-to-face communication, or whether it can be created online. It also raises the question of whether communication is simply text and symbols, which can be acquired and transmitted to form authentic virtual communities, and the typical mapping of local and global characteristics of face-to-face communication and ICT. By illustrating the loose connection here, some researchers find that the use of electronic and face-to-face channels is increased by individuals who use ICT to enhance and develop interpersonal relationships (Vulgar, 2003). For example, a person who uses a mobile phone often makes face-to-face contacts with the caller. The key to our initial steps beyond traditional definitions can be found in Coin (2006), and his critique of technological determinism in virtual reality research, which aims to build technical systems that require real-world processing<sup>2</sup>.

In many ways, more alternative research and practical approaches to the local and global have already been analysed. The next task is focused on the alternative luminal possibilities between local, global and virtual research and ICT practice.

The virtual is not a new unrealistic influence, through electronic systems, that is in contact with the real (Robbie, Schweig, and Jean, 2003), but is a symbolic system like many other objects in an individual's settings, communicating with other systems that produce symbols in the individual settings.

So, if we have been virtual forever, electronic systems are not the only or the most dominant source of virtuality but are added to the transmission of virtual concepts and ideas that affect individual places. The printed word, language, symbol, mental images, even the social stereotypes of the individual you are facing, are all virtuality's that attack and create the real for the individual.

For example, a "virtuous" individual mixes different virtual, concrete, possible, and abstract categories. The "virtuous" individual is associated with specific behaviours, suggesting that others consider them "virtuous" - the virtual concept designates and simplifies these specific behaviours, but is also further transformed through the abstract concept of virtue, informing individuals about future behaviours and the concept of virtue. This then suggests possible behaviours that we may anticipate in the future. With this example, what characterizes the virtual and its mobility through space and time (globally) is not related to any electronic device, but to the concepts and ideas that inform specific practices. All 4 elements - the virtual, the concrete, the abstract and the probable - are mixed during any moment important to a person - through an active combination of electronic and non-electronic channels. For example, a person who uses a real-time text chat system to communicate with a colleague produces his or her virtual interpretation: a set of ideal words used by the person communicating and others to create a picture of her, created from specific symbols and words on the computer screen. Computer text is a concrete expression of linguistic characters, grouped together to express one's absorption and interpretation. In this sense, meaning is always a combination of these specific texts and ideal concepts, in accordance with the signifier and the signified in structural philosophy. But this is not the only virtual system, in a concrete - virtual - abstract - probable sense. Both users also use a computer system that has a keyboard, monitor, mouse - the specific (current and current). But this computer system is also a virtual system because of its ideal and current impact on meaning building through its teaching of abstract symbols, in text. This communication between individuals through information and communication technologies can also offer reflections on their specific and future (i.e., probable) activities, but also future and ideal (i.e., abstract) possibilities for this future. For example, both users can communicate to arrange future meetings - a specific and likely future event. This specific and future event is also informed by the ideal and future concept of the meeting, which indicates the ideal structure that may be needed to form the structure and form of the meeting. Through these examples, we can see how the virtual - as an ideal and actual influence of the present - is

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<sup>2</sup> Miles, R.E. и Snow, C.C.: Network Organizations: New Concepts for new Forms, California Management Review, 28 (3), 2006., pg. 62-73.

presented as a "virtuous" individual, or as a pure and idealized form of communication through its concrete rendering of a physical device called a "computer", and so it is itself an idealized representation of the concrete results that guide its use for communication. With this, the virtual is an ideal and current concept, which affects the specific technical and social activities around it. With this approach, electronic media such as email, chat, videoconferencing, etc., can affect the complexity and reach of virtual and concrete opportunities for interaction, but not its historical role. So, the very number of virtual possibilities that today oppose the individual, supplied by electronic systems, has changed, not virtuality itself. Shields (2006) argues that the relationship between the real and the virtual is a long history. For example, replacing a spoken word with a text is a step towards virtual systems that "represent" the speaker. This step often includes non-virtual systems: images, text, print media, telegraph, and telephone. This long history of virtual proposing a change in our view of virtual research. With this approach, the relationships between global, local, virtual and electronic media are revealed with new luminal spaces between them. This allows for the development of new theoretical and practical analyses of the various mediation systems, including the electronic system, which promotes the attention and absorption of individuals. We are no longer limited to analysing how the benefits of face-to-face communication can recover in virtual systems. We no more ignore face-to-face communication to focus on the unlimited possibilities in electronic communication. Shields's argument is that individuals achieve meaning beyond the concrete, and it has always been so. In this sense, we have never been local or global, but global thinkers act locally, and local thinkers act globally. This raises several important research implications for local and global IS virtual research.

### 3. Conclusion

This deconstruction of the characteristics of local and global, and virtual systems, illustrates several new opportunities for virtual research and practice. The first is that our focus in virtual research should be on the absorbed and attentive individual seeking meaning. Using the Shields basis, we can explore how chains of virtual - concrete - abstract - probabilistic interactions are brought together by active individuals, through electronic and non - electronic channels. By asking this revised question, we are not exploring the local, but the locally produced (i.e., concrete) locations and global circumstances (i.e., virtual-abstract symbols). The virtual is no longer confined to an electronic medium, but also includes the ideal - current concept that influences and is influenced by the absorbed individual. We do this by observing specific behaviours arising from certain circumstances (specific), speaking and influencing others via electronic text (virtual), exploring and transforming future meetings and activities (likely), with the intention of forming new social movements, friendships and contacts (abstract).

These conclusions are not particularly unique. A "virtual cycle" of interaction between the virtual and the real has already been proposed by Robbie, Schweig and Jean (2003). However, in contrast to their appropriate and inappropriate approach to the virtual and the real, it is suggested that the focus of the absorbed and attentive individual, and his or her concrete and virtual systems, would be more productive. The absorbed is the one who creates his or her premises in different specific - virtual circumstances. According to Burbules (2004), even face-to-face communication has this virtual-concrete dynamic. The result is that the communication media is pushed into the background.

Second, according to Burbules, electronic systems have been shown to be symbolic systems that provide symbolic mobility through time and space. These symbols are both virtual (i.e., representation in language) and concrete (i.e., printed symbols on the screen). In this sense, they represent a global impact in that they are carried over long distances and times through their concrete representations of language. However, this is when they encounter absorbed individuals who read and use symbols that render specific - virtual sites. Third, despite the removal of our attention from electronic and non-electronic media, we cannot ignore the fact that communication channels really influence and limit the uses of an individual's specific practices. Thus,

electronic systems, to some extent, describe their use. For example, a tool requires a certain keyboard and technical practices, so that the individual can participate. These specific practices may also limit their virtual capabilities. Furthermore, certain socio-technical capabilities of the medium can influence specific behaviours. As an example, Introna (2003) argues that a lack of closeness through computer systems allows the recipient not to be disturbed or disturbed at all by the real faces of the senders. He suggests that face-to-face contact means in terms of evoking our compassion and attention to the other. Computer systems allow and can allow the individual and the group to ignore people in specific situations, especially if virtual images remove bad real and specific situations. In conclusion, the local includes concrete practices and words, the global includes virtual words and concepts that arise from and affect the concrete, and the intersection of both absorbed individuals creates locations. They are influenced by electronic and non-electronic channels, which present new possibilities and dynamics for the individual. They contribute to a world that has always been virtual. While electronic systems can dictate both the concrete and the virtual to some extent, the active role of the individual, involved with themes, communities, and other individuals, is the focus of research on virtuality and practice. Our current focus on electronic machines as virtual - global, and face - to - face communication as concrete - local, has a limited number of topics and approaches used in this research.

In focusing on those specific and virtual places where a person is an absorbed participant, we go beyond the typical local and global assumptions, and the relatively uniform impact of electronic and non-electronic systems on this communication. To be an absorbed participant, communicating with others, the media influences the possibilities of absorption, automatically and the form and composition of the relationship. But they do not fully define the relationship and its characteristics. With this, our attention is paid to the locations created through electronic and non-electronic systems, by absorbed individuals.

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