

## **Research interviews by Skype: A new data collection method**

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### **Abstract**

Interview is, since the 80's, current practice in data and information collection for all social sciences academic studies. Face to face interaction is based on physical presence of the protagonists which have an appointment with this aim in view. Since the Millennium, the World Wide Web and the democratization of high speed Internet access offer many different ways to connect people all around the world without quitting one's armchair.

This paper proposes using VoIP technology (Voice over Internet Protocol) to make research interviews and proposes to examine why and how this way of collecting data is able to be recognized as a scientific process of research inquiries.

With *Skype*, we go from the VoIP 24-hour online way to cut the cost of calls of the companies to a simple, free and convivial way to communicate in private life. *Skype*, brand property of *EBay*, now begins developing playful services of personalization. Its targets, especially individuals, use it to be connected simultaneously in a video chat. The advantage of this protocol in a research interview face to face is that is possible to record video as well as voice calls. For the latter, the treatments of the verbatim are the same as with traditional interviews and analyses can be made for example with software like NVivo, exactly in the same way as usual. The novelty resides in two principal differences. First, it's possible to exploit the information contained in the video calls. The body movement's analysis offers, after the event, precious observations with the necessary condition that the exploitation of each case will be made with the same rigorous methodological protocol. Secondly, the research interview by *Skype* offers a real freedom space to the interviewed which has the power to "quit" the network session whenever he wants and require his collaboration to a higher degree. Because of the virtuality of the interaction, the interview conduct has to be specifically adapted. We propose to present, in this contribution the results of focus groups tests with this data collection method.

The way of connecting people changed with virtual networking and the possibility offered to free the net surfers from the distance and this type of data collection does not make exception to this. But, and it's probably the major difference, this use of this VoIP method can give the opportunity to reduce considerably the cost of research interviews and permit to a greatest part of researchers to collect easily, faster and cheaper their own data.

**Keywords: Methodology- Research interview- Data collection- Skype- VoIP-**

### **1. INTRODUCTION**

Interview is one of the most commonly used methods in qualitative research and a current practice in data and information collection for all social sciences academic studies. Face-to-face interaction is based on the physical presence of the protagonists who have an appointment with this aim in view. Since the Millennium, the World Wide Web and the democratization of high speed Internet access offer many different ways to connect people all around the world without leaving one's armchair. The way of connecting people has changed with virtual networking and the possibility offered to Internet surfers to break free from the distance, and this mode of data collection is no exception. But, and it's probably the major difference, the use of this VoIP method can give the opportunity to considerably reduce the cost of research interviews and allow a greater number of researchers to collect their own data easily, faster and at a lower cost.

This paper proposes using VoIP technology (Voice over Internet Protocol) to make research interviews and to examine why and how this way of collecting data can be recognized as a scientific process of research inquiries. With *Skype*, we go from the VoIP 24-hour online way of cutting the cost of calls of

companies to a simple, free and convivial way to communicate in private life (For more information see: <http://www.skype.com>). *Skype*, brand property of *EBay*, is now beginning to develop playful services of personalization. Its targets, especially individuals, use it to be connected simultaneously to a video chat. The advantage of this protocol in a face-to-face research interview is that it is possible to record video as well as voice calls. For the latter, the treatment of the verbatim is the same as with traditional interviews, and analyses can be made, for example, with software like NVivo, exactly in the same way as usual. The novelty resides in two principal differences: First, it's possible to exploit the information contained in the video calls. The analysis of the body's movements offers, after the event, precious observations with the necessary condition that the exploitation of each case will be made with the same rigorous methodological protocol. Second, the research interview with *Skype* offers a real free space to the interviewed who has the power to "quit" the network session whenever he wants and require his collaboration to a higher degree. Because of the virtuality of the interaction, the conduct of the interview has to be specifically adapted. We propose to present, in this contribution, the results of focus group tests with this data collection method.

This paper is built as follows: first, it discusses communicational human interactions by surveying the literature. Second, as the literature review suggested, it proposes a conceptual design from which we build the survey guide. Third, in order to assess pattern matches between theoretical and observed patterns (Trochin, 2006), it justifies the choice of a focus group approach and reports our empirical research results. Finally, it concludes with the qualitative methodological applications and future research avenues.

## 2. HUMAN COMMUNICATIONAL INTERACTIONS

For over three decades, qualitative researchers focusing on the needs of alternatives to face-to-face interviews have explored mail and phone interviews (Dillman, 1978).

Since the beginning of the third millenium, the Web 2.0 has been a way to make interactional experiences fast, free, secure (Lin et al. 2008) and fun (de Rosnay, 2006).

If face-to-face interviews continue to be commonly used, online research interviews are just beginning to be utilized in a way to have phone contacts through individual computers with the VoIP (Voice over internet Protocol) (Hay-Gibson, 2009). *Skype* uses this protocol and arrived in the VoIP services horizon as a particular application, using the P2P (peer-to-peer) model; the personal computers of the community of *Skype* users, existing between interlocutors, process the information instead of server. The protocol (VoIP) used by *Skype*, considered as a revolutionary technology (Verbiest, 2007), codes the data which circulate by means of the other *Skype* users even if they are inactive, so the road is short, random and unique, and the data are almost untraceable.

This phenomenon is based on two principles: free information transportation by *Skype* community members and the maximum of six users' relays. So *Skype* is a medium for virtual communications and virtual "face-to-face" interrelations, based on a free principle, to connect people and build social links by the "strength of weak ties" (Granovetter, 1973). It has evolved from the VoIP 24-hour online way to cut the cost of calls of companies (Holtz, 2005) to a simple, free and convivial way to communicate in private life by audio calls and video conferencing. Since a few months, *Skype* has added the capability to record and stock these calls as video data with the Pamela software (For more information see: <http://www.pamela.biz/en/>).

The massive use of the Internet to connect people and transfer data is one of the way "through which is born a universal hyper-culture who transcends frontiers and interfering with antic dichotomies (economic/imaginary, real/virtual, production/representation, brand/art, commercial culture/high culture), re-configures the world where we live and the coming civilization" (Lipovetsky and Seroy, 2008: 7).

As early as the 1950's, a growing proportion of the social science literature discussed the interactional phenomena in human communication process.

On the one hand, in the spirit of McLuhan's work (McLuhan, 1964), which considers interviews through the technological media, this media being at the cornerstone of interactions, some researchers' studies tend to establish "comparisons between the process of knowledge construction in face-to-face and

mediated communication” (Williams, 1977) and between face-to-face and online interviews (James and Busher, 2009).

Some researchers specially worked on video retroaction developed in education sciences data construction (Baribeau, 1996), in all its space and time dimensions.

The management of space and its perception is cultural, as first introduced in social sciences by the School of Chicago (Grafmeyer, 1984) and later Hall (Hall, 1971) and in other instances, sociologist Francesco Alberoni worked on private and public space (Alberoni, 2000) and more recently, a few researchers investigated the use of video conferencing systems at home by exploring family values, confidentiality and privacy protection, as well as family ties reinforcement (Kirk et al, 2010; Judge and Neustaedter, 2010; Ames & al., 2010). It's not only space which is regarded at the virtual level, but also time.

With the Web 2.0 and the work of Harrison on “Media Space” (Harrison, 1997, 2009), audio-video connections in everyday life are investigated. As with the cellular phone a few years ago, a growing number of connected people put the focus on time dimensions: work time, entertainment time, convivial relations time, family time.... The quasi-permanent possibility to be reached quickly and freely blurs the notion of time dedicated to tasks and it is not only the distances which are transcended anymore, but also the compartmentalization of time (Crepel, 2006).

Some authors focused on the time dimension in virtual communications. There are different times in an interaction, not only the time in which comments are exchanged but also the time which allows every interlocutor to interact at a level of formal consciousness (the learnt codes of politeness, appropriate schemas of communication), but also at an informal one (Hall, on 1984).

On the other hand, taking Goffman (Goffman, 1973; 1974) or Garfinkel (Garfinkel, 1967) works on the socially situated interaction views, researchers focused on the non-verbal cues: behaviour (Probst & al., 2009; Buchwald & al., 2009), gesture (Tellier, 2009) or facial expressions (Ekman, 1993), as well as the interactions impacts on participants' perception behaviour ( Knapik, 2006).

As brain exploration and technological possibilities grow, experiments on the neuronal basis of social cognition in interpersonal interactions have merged since a few years (Haxby & al.,2000; Hari & al., 2009), as well as works on virtual interactions and artificial intelligence (Kenny & al., 2009). Considering interaction as an “intersubjective experiment integrated in relational process” (Bravo in Plantin & al. 2000), non-verbal data merge not only emotions but also valences, mood, feelings (Cahour, 2006). From another perspective, the idea of an emotional adaptation capacity considered as a competence was introduced in management fifteen years ago (Goleman, 1995, 2000).

We agree with the point of view of communication anthropology which defines verbal and behaviour data in a “free variation report” (Winkin, 2001). So, verbal data live apart from the other components and they are able to fight each other if one digresses in a voluntary control action of the subject's emotional expression. This theory of communication is the basis of the works on Facial Action Coding System (FACS) (Ekman & al., 2002) which associate facial expressions with feelings.

Finally, face-to-face communication, as the collective and coordinate acts of participants who share linguistic and paralinguistic information in a co-located time and space, creates a shared knowledge as Clark and Schaefer demonstrated (Clark & Schaefer, 1989).

### 3. RESEARCH OBJECTIVES

This experiment was born with our own private utilization of Skype. While we became more and more familiar with it, we imagined that it could be a solution to conduct virtual face-to-face research interviews because of the possibility to record voices and easily analyse the data with software like N Vivo 8 (<http://www.qsrinternational.com/>) or Transana (<http://www.transana.org/>). While we regretted that we couldn't also simultaneously treat the video data, the Pamela application, at the same time, offered that possibility for a low price.

The purpose of this paper is to enable researchers to utilize Skype-to-Skype virtual recorded interviews to collect qualitative research verbal and non-verbal data. In that aim, we propose to examine the perception of the place of virtual experiences and non-verbal data by a research group using Skype-to-Skype

recorded interviews.

We attempted to verify the processes of knowledge transfer in Skype-to-Skype versus face-to-face interviews and the question we asked was: Could virtual video interviews be scientifically valid and reliable measure instrument to conduct management research?

In the subsequent literature review, two principal axes emerged: virtual experiments and the place of non-verbal data.

Contrary to quantitative research, the qualitative research instruments change and do not remain stable, and the researcher decides to utilise one data collection method, with or without changing the observation conditions, and because man is fallible, he introduces bias (Miles, Huberman, 2003). In this research, we also propose to examine this method from a bias analysis standpoint; what bias it introduces, what it removes.

## 2.1 Conceptual design

This study investigates the interactions developed in Skype-to-Skype interviews instead of face-to-face research interviews.

As the interaction literature has suggested, and with the existence of this media space, we propose to investigate mediated research interactions specifically in virtual Skype-to-Skype interview situations. This study takes a multimodal approach based on the interviewer's experiential report. Media Space is considered as a virtual experience: in technological, space and time dimensions. A Skype-to-Skype research interview is more than a face-to-face research interview. In fact, recorded audio and video data could be studied exactly with the same material. The recorded interview is a mirror of what it was in reality. Non-verbal data are visible and don't depend on the interviewer's sparse notes nor his memories. As showed in the literature review, this study is built from a dichotomy scheme: Virtual experience and non-verbal experience. The virtual experience deals with technology, trust and synchronic and diachronic dimensions.

The non-verbal experience will consider the interaction in its social entirety.

## 3. EMPIRICAL RESEARCH

### 3.1 Methodology

We investigated a new tool for data collection in qualitative research and simultaneously, for the participants, a new interaction between interviewers and interviewees. We chose to study the impressions of the researchers/ interviewers in this experiential laboratory in a focus group. A focus group (Morgan, 1997) is adapted for a population homogeneous in its cultural and social dimensions. Even though researchers came from different horizons, we considered that PhD students represent a particular and homogeneous social group. Skype is a networked application, and in accord with the literature, we considered it like a product. A focus group is a useful tool in the case where it will be linked with further research through individual interviews. It stimulates the interventions and participants' creativity, and can be used "to define manipulations of independent variables" (ibid: 28)

We asked PhD students to use Skype to realize focused interviews with a guide built for the research question about motivation of the choice of alternative modes of transportation. The population must be composed of students and academic members of universities all around the world, and interviews could be realised in the language of their choice. In the same week after the experiment, in order to collect different perceptions, we organised an audio and video recorded focus group of one hour and a half.

The group was composed of four men and one woman, from 25 to 45 years old; two of them had used Skype before to connect with friends and family abroad.

The focus group was conducted in French and we used participant's translated sentences in italic to illustrate our words.

## 3.2 Result analysis

### 3.2.1 Virtual experience and technology

The technological installation experiment, at first, created some fears on both sides, for the researchers, who were unfamiliar with it, even though they could learn and practice during a workshop we organised to install and use Skype and Pamela, and the interviewed contacts that has to follow the researchers' directives for Skype installation and account creation. This point was the major preoccupation at the beginning of the virtual experience.

As noted by a participant: *"I asked people I have known quite well since a few years to make the experiment, ... two people had some difficulties to install it... technological preoccupation first, but they made a good installation, it worked well and they didn't need to worry anymore"*

That was reinforced by another participant's intervention: *"At first sight, they were not [comfortable with] Skype, it was the first time, for me too, for them too... But, in my idea, they found it interesting because we spoke later."*

This point introduces the technology adoption process by users and the decrease of mistrust by as the frequent use of this novelty becomes commonplace (Mirvis & al., 1991).

Through VoIP, a particular protocol, it generates trust to the Skype community members, trust which is different from the trust granted to a server, an existing machine within a company using it to redirect data but also having the possibility of storing them, and of redrawing their origin and destination. But, a new Video Skype user usually will be unacquainted to this argument. In this case, trust is inside all interrelations but the users are only aware of it insofar as it concerns human interrelations.

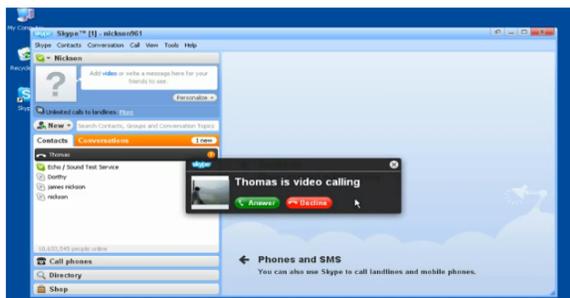
### 3.2.2 Virtual experience and trust

By trust, we mean that the focus is on the researcher's capability to first build a relation of trust with the participant within the virtual interaction.

The exercise, depending of *"the researcher's maestri"*, seems to create, at the beginning, a real bond of trust that can condition the quality of the interview in a favourable way. The fear of the unknown pushes the researcher to win the contact's trust: *"it's like I'm in front of you, the web camera is just to be able to see us together through a computer screen to make the thing more fun, and you can relax"*.

However, physical presence seems to be important in trust construction between interviewer and interviewee for our participants who proposed to *"meet people a first time in face-to-face to build trust link and eventually explain Skype and afterwards make an interview with Skype"*.

### 3.2.3 Diachronic and synchronic dimensions



The capacity "to move" virtually corresponds to the ability to "be" here and somewhere else at the same time. The double mind is not without arousing questions. The notion of space strongly occurred to the participants. The fact of being able to lead an interview with an interlocutor located thousands of miles away is a freedom which was noted as a release of physical and economic constraints. However, the most notable remarks did not concern localisation, but more computer frame space.

The distance between public and private place gave rise to a debate concerning cultural personal space. Indeed, most of the interviews granted by our participants were from the interviewee's home, which allowed seeing their family, even their friends, and their close relations interacting with them during the interview. *"I have the impression that it is a conversation which I have made, not a research interview ....Because he [the interviewee] is in his family frame, you too in your frame"*. The difference between public and private space was not raised, the space being limited to the screen in reality, but research interview needs to be socially situated. Private and business 'frames' are delimited and different. There's a frame 'space and different spaces into the frame.

Frame is the interview's room. People want to see each other and when one is out of the frame the other made remarks. – *"During the interview, when I casted down my eyes to write notes, people stopped speaking and I told, Yeh, I listen to you but I take notes ... Yes but.... so I put my notes and looked at the camera but then I say to me I have to take notes because she spoke to me and I ... Which next question I will ask her, in relation of that she told me ... I found this difficult"*. The screen is also a space inside and out. Inside is the 'interview's room', the interrelation space. People are inside the relation. But the screen also is a desk and is useful in this way; it's also a personnel space. Some of the participants 'cut' the screen desk in two parts: personal and Skype communication window. – *"I put on left three questions and on right, Skype"*.

At the same time, people are inside and out. This is what we called a double mind; different spaces in a same time.

Time is first viewed as a quantity. Most interviewees agreed with the experiment because with Skype, it was possible to grant the interview after their work day, when they're at home, in the family space and time. Considered as *"a facilitating factor"*, the gain of time gifted by Skype interviewing method is an advantage to decide interviewee to give an appointment and for interview agreement. Adaptation capacities and flexibility are necessary while interviewee's times cross in a busy planning and *"it will be easier to persuade people to use Skype"*. As Skype in human resources management become usual, especially for recruitment, time gain on travelling touch space dimension. Mediated interrelations not really push away physical frontiers but offer a virtual place in which making links take time in virtual space and gain moving time in real space. The real space where a manager prefers distance interview because [people] *"don't come to mobilize physically him in his office during one hour of time"*.

*Time is also the interview's time and it's 'length appear is important'*. Focus group participants declared to be unable to use Skype for a long interview *'for the ergonomic and the comfort of each part'*.

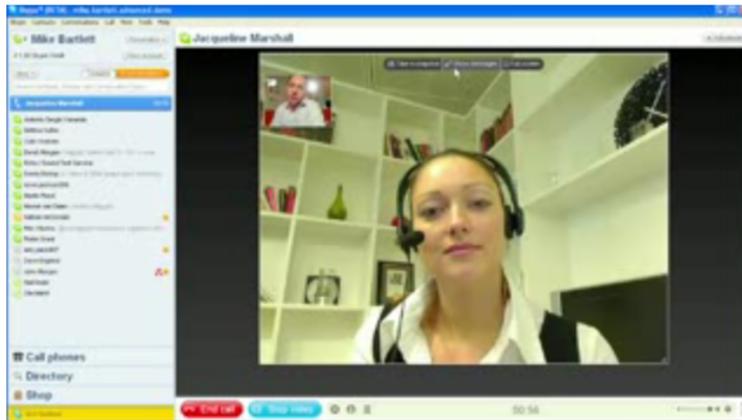
### 3.2.4 Confidentiality

Recorded virtual conversations are still not common practices and raise the problem of confidentiality. In Skype-to-Skype, the Pamela application asks the interlocutor to agree on the recording of the conversation. But even though the interviewee gave their consent, they asked questions about the recorded interviews later; *'Yes, but where this recording will go? Video and audio because there, I feel myself a little bit uncomfortable with what I want to share, especially when I give some opinions not really politically correct, what are you going to do with this? The idea of confidentiality of the recording was put in question.'*

### 3.2.5 Non verbal Data



The importance of the researcher's role in the interaction has to be noted (Goffman, 1967) but also, in the present experiment, the fact that in this virtual interaction by Skype, each person can see the other on his screen and also himself simultaneously. The fact of seeing his interlocutor and of seeing himself also on the screen is seen as a challenge by the participants who look at their faces instead of looking at their interlocutor's face: "I *amused myself*".

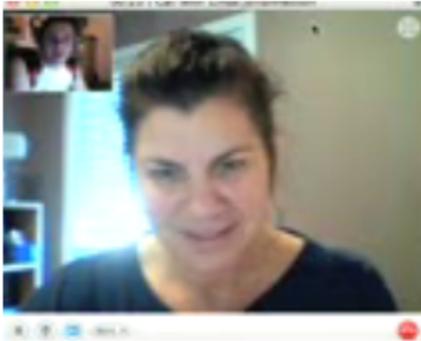


This point seems to make a fragmentation of the synchronisation for the interviewer who surprised himself by looking at his own face instead of at his interlocutor's. The ability to control themselves, especially the correction of facial expressions and attention given to their non-verbal communication is strongly noted by the focus participants as a source of perturbation in their attention to the interviewed. This is identified as the participants' first surprise, and appears to them as « *a distraction which could be cured* ". The researcher, in this type of interview, uses his past experience to reinvest the acquired knowledge regarding the new situations (Hall, 1971:88-89).

Difficulties in seeing quite clearly the interviewee's face in one Pamela recording is noted like a major problem by one researcher. In fact, lighting and sonority control are the first steps to be done, requiring the participation of the interviewee at a high level and the interviewer's qualities to guide these technical adjustments.

First, this interview method troubled the interviewee: "*The data wealth, verbal and non-verbal, the fact that we can keep together audio and video, for me it's a wealth, but my face-to-face, that was disturbing to them a little bit*" and also for the researcher: "*I was not used to seeing me and seeing us and then, I*

*look at me and put more emphasis and attention on my non verbal and listen less to what they say, so, well... that, that is an element that has called me at the first beginning.'*



In a mediated interview by Skype, the eyes look at the middle of the screen where it's possible to see the interviewee's face. The eyes are always turned toward a point under the line of natural glance. Neither the interviewee nor the interviewer ever glances at each other. For that, they would need to look directly in the camera's lens, which is not comfortable because of the led light of the webcam.

Non-verbal communication, which is used naturally in a face-to-face interview can't be used there in the same way. Skype-to-Skype interviews need another behavior decoding.

## 4. CONCLUSION

### 4.1 Contributions

This new data collection data method is studied for the first time, to our knowledge.

The researcher, by his position, dominated or dominant (Pinçon and Pinçon-Charlot, 2009), can introduce bias (Roussel and Wacheux, 2005) in the conversations he encounters, these biases are not necessarily considered in the research communication results (Baribeau, 2007).

The research diary is used by researchers to define survey bias. In Skype-to-Skype interviews, Pamela records the face and gestures of the two participants, interviewer as well as interviewee.

So, we suggest, as a contribution, to examine how this data collection method emphasize bias introduced by the interviewer and how Pamela recorded video data can be used to codify the diary of the research in a way to control the interview process and find bias eventually introduced by the interviewer.

No participant noted the possibility to of using this method to build the research diary in the way it could be used to control the interview process and find bias eventually introduced by the interviewer.

So, we introduced the idea of the research diary at the end of the experiment session.

A growing interest in the video data recorded appeared with the intention of using it in the diary, albeit weakly. There was first, one long minute of total silence. Off the record, when we asked to the participants what the importance of the diary was, for us. For those who declared using it, they marked a moderate interest. For the others, they eluded the subject.

However, the researchers who participated to this experiment all agree that Skype interviewing method is valid at their point of view, and that they will use it in their future researches, with other methods of data collection and in particular mixing Skype-to-Skype with face-to-face interviewing.

### 4.2 Limitations and future research directions

Mixing different spaces and times, Skype-to-Skype research interviews oblige meeting people to create a virtual and artificial space and time. Questions about this new 'media dimension' merge and as we noted in this paper, technology changes human social interrelations. Future researches in social sciences are necessary to study this change in depth.

Skype is a faithful help to construct the research diary because the interviewer's non-verbal behaviour can also be recorded by Pamela simultaneously with the interviewee's behaviour.

Also, the gain of time in training has to be noted; with Skype, the interview can be conducted by the

researcher himself, so the step of training the interviewers is not necessary; it's a gain of time and control. On the other hand, if it's not the case, control by random tests is a good way to test the interviewer. As says Hine (Hine, 2005 : 246), we advance that 'this air of innovation and anxiety is a valuable asset that Internet research can build on and sustain, in order to maximize the potential for reflexive thinking about social science that it offers'.

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