**PhD COURSE IN
APPLIED SOCIAL SCIENCES
WORKING PAPERS SERIES
n. 3/2020**

The social network coming-out. Planning a survey about LGBTQ population(s) on Instagram
Author: Marco Dionisio Terribili

The social network coming-out. Planning a survey about LGBTQ population(s) on Instagram

Marco Dionisio Terribili[1]
Sapienza University of Rome

Social networks allow to study the LGBTQ in an innovative way, bypassing the associative activities that, till now, has been the main source of knowledge about this research field. Using a software, it is possible to quickly download all the posts containing a specific hashtag, in order to design, plan and finally conduct a survey on a significant number of people who do coming-out on Instagram. Following the data collection of user belonging to the target population, a survey through Instagram will be conducted. This will be carried out by contacting people through the same social network they use and by sending them a questionnaire about the most unknown and most interesting aspects of LGBTQ population. Thus, interviewed people will be reassured about privacy, accuracy and aim of the project.
To fully understand which the most important areas in LGBTQ people's daily life are, qualitative interviews will be carried out. Conducting the survey on a large number of participants can lead to a deeper knowledge of specific phenomena of this population(s) and possibly help to promote valid social policies for LGBTQ.

INTRODUCTION

LGBTQ stands for Lesbian, Gay, Bisexual, Transgender and Queer people. Definitions are always difficult in this field and, accordingly, the acronym has kept changing over the past few years. First it changed from LGB to LGBT, in order to include transgender people and it finally became LGBTQ, to include also *queer*, that is people who refuse traditional identities (sex, gender, sexual orientation, or even ethnicity), defined by the predominant culture of a society (Carey-Mahoney, 2016).
Referring to LGBTQ as a population, thus overlooking the heterogeneity of the groups that the acronym identifies, can be strongly inappropriate. Thereafter we will refer to LGBTQ adding an *"s"*, within brackets, following the word population: this *population(s)* will represent, with all its inner many-sidedness, our target population.
Worldwide, past decades have seen much progress in unraveling the social characteristics of this population(s). However, the quantitative investigation of the LGBTQ social features is still in its infancy in Italy, as in several other countries. The reason for this lack of knowledge is linked to the intrinsic complexity of this population(s), the rarity of the involved phenomena, and the elusive

---

1 PhD student, Social Sciences and Economics Department, Sapienza University of Rome, marco.terribili@uniroma1.it

people making up this community (De Rosa and Inglese, 2018).

For a long time associations represented the main informative source on the LGBTQ community (Barbagli and Colombo, 2007), but today we can utilize innovative data sources, mainly those from social networks, which allow to reach, investigate and study this population(s).

This planning paper will run through the main studies conducted on LGBTQ people and will analyze both their strengths and weaknesses. Following this we will introduce how the research will be developed and take shape. We will also propose an innovative methodology to design, plan and conduct a survey on a significant number of people coming out on Instagram, by posting photos or pictures, and using some particular hashtags on their tagline; all that can reveal the sexual orientation of the person who posted the photo.

In the final part of this paper we will describe how to reach a large number of individuals from the target population(s), how to understand which aspects of daily life are linked to the sexual orientation, and finally how to conduct the survey, guarantying privacy and accuracy.

OVERVIEW OF THE MAIN STUDIES CARRIED OUT IN ITALY: STRENGTHS AND WEAKNESSES

LGBTQ is one of those research fields in which the binary definitions don't work: the dichotomy man-woman does not take into account gender, homosexual-heterosexual does not include other sexual orientations and, from a methodological point of view, either a qualitative or a quantitative approach could give partial or biased results. That is the reason why an important contribution to this field can be found in the *mixed methods application*, which is a strategy to use and combine quantitative and qualitative approaches (Johnson 2007; Creswell, Plano Clarc 2007). An integrated approach appears to be more appropriate and flexible in dealing with the complexity characterizing the LGBTQ population(s). In Italy, in line with this approach, we can find Barbagli and Colombo (2007), Chiara Saraceno (2003), and "ModiDi" (2006) about LGB health (sponsored by Arcigay and financed by the National Institute of Health). As for sexual discrimination of LGBTQ on workplaces, a combination of qualitative and quantitative instruments have been adopted in the study "I am, I work" (2010), carried out by Arcigay and financed by the Italian Ministry of Labour and Social Policy.

Although mixed methods research increased the understanding of LGBTQ population(s) -despite some limits, given their local and circumscribed nature- these quantitative studies, nationwide, have been just a few and mostly of experimental nature. In Italy the main quantitative studies have been carried out by the Arcigay and the National Institute of Health (to note that those studies are biased by a strong auto-selected sample) and by Istat[2], in 2011.

It is not difficult to observe that till now, as Barbagli and Colombo highlighted in Omosessuali moderni (2007), gay associations (mainly Arcigay in Italy) represented the main informative source on the LGBTQ community, promoting and partnering the main studies. Of course the information provided has been extremely useful and informative, but social knowledge should go beyond the *"associationism"* and associative activities. Studying LGBTQ people from their associations' point of view can lead to a deep but biased knowledge, because the target population(s) can be wider than

---

[2] Istat conducted a survey about "*gender discrimination, sexual orientation and ethnic belonging*", partnered with Italian Minister of Equal Opportunities. The Istat survey attempted to investigate, through some questions, the respondents' sexual orientations and for homosexual and bisexual people, their coming-out experience and possible discriminations against them.

the people who belong to the associations. For example, associations are more localized in big cities than in small towns and their members are clearly more involved in the process of recognition of civic, cultural and political rights than most of other LGBTQ people who, for several reasons, cannot belong to any association.

AIM OF THE STUDY

Because of all the problems mentioned above, my concern is to propose innovative methodologies. These would involve designing, planning and finally conducting a survey on a significant number of LGBTQ individuals who "come out" on Instagram, which is one of the most popular social networks worldwide, and which allows millions of users to share their picture and to describe themselves by using keywords, called *hashtags*. By pictures, and using some particular hashtags in the tagline, the person who posted the photo can describe the person itself, and sometimes reveal its sexual orientation.

Finally, after collecting data on Instagram users from the target population(s), we are planning to conduct a survey by contacting these individuals through the same social network they are using and by sending them a questionnaire. This would allow us to investigate the most unknown and most interesting aspects of LGBTQ population(s).

THEORETICAL FRAMEWORK

This work grounds on two theoretical frameworks: gender studies and digital sociology.

Nowadays the development of the *Internet of things* (IoT) favors the digitalization of social, economic, political and private aspects. IoT facilitates new ways of daily self-representation, in which bodies are not just objects with borders and propriety, but they structure themselves as material and discursive phenomena (Barad, 2003). The intra-actions[3] between technologies and individuals constitute a society in which the dichotomies male/female, public/private, heterosexual/homosexual don't work anymore (Ruspini, 2014). In this context, using a gender-sensitive approach means to analyze the identity, relationships and gender roles transformations.

At the same time working on a social network necessarily includes topics such as digitalization and of all those relationships between humans and web technology (Snee et al., 2016).

These two important and broad frameworks are deeply interconnected, because technology change our daily life. As a consequence of this our role in the contemporary society is changing too. However, several definitions are needed, because the knowledge and the understanding of complex phenomena, like those typical of LGBTQ population(s), cannot overlook theoretical concepts.

In the following paragraphs an overview of gender studies and of digital sociology will be carried out.

Gender studies

Gender studies is a multidisciplinary theoretical perspective (concerning several academic fields, such as sociology, philosophy and psychology) which started to denaturalize reproductive roles

---

[3] Karen Barad introduced the intra-action concept, in opposition to interaction, to signify the mutual constitution of subjects and objects (Barad, 2007).

among individuals belonging to a society, to make a distinction amongst sex, gender and sexual orientation.

Gender studies started in North-America during the 70s and arrived in Europe some years later. A strong influence for these studies was definitively the feminist theory, pursued by important intellectual, such as Judith Butler, who in 1990 introduced the concept of gender performativity, in which gender is something "done", and not attributed, Donna Haraway who studied the relationship between gender and science, introducing the concept of *post-human artifact*, in which the gender is defined not only by the relationship among humans, but also among humans and nonhumans actors (Haraway, 1991; 1997). Unlike Haraway, Karen Barad tried to recompose the terms dichotomy subject-object, that presumes agencies of observations and objects of observation, as irremediably separated from each other, in scientific knowledge production.

Clear definition have been used in last decades. Today societies cannot be interpreted anymore in a realistic way, through obsolete and rusty dichotomies (e.g., man/woman and heterosexual/homosexual). Let's take a look to the main definitions of these typical concepts used in gender studies (Zevallos, 2014):

- **Sex** includes biological characters, according which a person is defined male or female. These traits could be overvalued and our role in a society can be interpreted according to our biological characters. This process could be really misleading.
- **Gender**, on the contrary, is a social identity: it is not an innate human characteristic, but it can vary across space and time. It's assigned by the society, which define how individuals understand their identities, being a man, a woman, a transgender, a gender queer and all the other gender definitions. If sex is decided by nature, gender is decided by the society that deems if a job, an activity or a role is more appropriate for a man or for woman. Gender and sex sometimes are not aligned. This is the case of transgender and intersexuality, two gender categories that anyway don't regard anyway sexual orientation.
- **Sexual orientation** deals with the sexuality of an individual, attraction, practices and identity. Just as sex and gender, sexual orientation don't always align and it generates the rainbow of sexual shade that we are studying, called LGBTQ. As the gender, sexuality is fluid, so it can change over time, being made of experiences, desires and behaviors.

Gender identity construction and the relationship between sex, gender and bodies are a transformation in progress for everyone: individuals call into question, all lifelong, the acknowledgement or the refusal of social rules linked with having a male or a female body, or again a body attributable in the continuum between male and female biological antipodes (Antonelli & Ruspini, 2016).

Digitalization

Digital technologies have become essential in our life.

Personal computers entered in our houses slowly, between 90s and 2000s. Similarly, internet became part of our daily life during a period of ten or more years. Following this a strong acceleration occurred, because of technologies became progressively more efficient, cheaper, faster and smaller. Think about smartphones, tablets, smartwatches, etc. All these devices have had a deep influence on everyday life of many people spread all over the planet: the communication and the data flow between people has never been so quick and so reliable.

Sociology wasn't indifferent to this epochal change: social researchers tried to explain it, focusing

on the impact, development and use of digital technologies and their incorporation into social worlds. This sociological field started to be called Digital Sociology (DS) in 2009, but only in 2015 this line of investigation of sociology became official with the publication of Lupton's manual, indeed named "Digital Sociology".

DS has a strong multidisciplinary characterization, because several other disciplines are interested in the use of digital technologies, such as anthropology, marketing, engineering. However, the study of digitalization in sociology has four aspects that are not examined in depth in other disciplines (Lupton, 2013):

- **Professional digital practice**: how the media tools are used to build networks of friends, colleagues and people who share common interest.
- **Sociological analyses of digital media use**: how people show themselves, and what is their role in the social network which reproduce social structures and social institutions
- **Digital data analysis**: how to use digital data (often called big data, which come from social networks, or other internet sources) for social research, both quantitative and qualitative one
- **Critical digital sociology**: focusing the consideration on the use of digital media technologies on their effects, mainly the most controversial and negative ones, on the society.

These four aspects highlight how sociology has recognized the potentiality of the new digital media; sometimes adopting perhaps a too pessimistic point of view, like in critical digital sociology, sometimes adopting a too "idyllic" point of view, thinking about new digital media as the answer to all the questions that traditional sociology posed. Both these two points of view are way too drastic and could be misleading (Marres, 2012).

Sociology should be the academic discipline which studies and identifies the role of the digitalization in people everyday life and its effects on the societies (Daniels & Gregory, 2016), focusing on how digital technologies are embedded in the various aspects of social life.

Innovative data sources, mainly social networks, have brought an informative richness (Daas, 2014) that social researchers have to use for their studies. Although they have to be careful on how social media users represent themselves, in a kind of digital "self-disclosure", and how they construct an online profiles and for what aim those profiles is used for (Rizzo, 2018).

Digital is not just an adjective anymore, but it became a noun too: *the Digital*.

Generically, it represents the direct effect of the digital revolution (also called third industrial revolution) and the beginning of the information age, started during the 1980s and still ongoing (techopedia, 2016).

For the social researcher the Digital -Instagram, in our case- becomes a new social space: subjectifying, self-expressive and free, though subject to its netiquettes (Roberts et al., 2016).

The Digital can become also an empirical research tool, because it allows to select individuals (according to what they post) for a survey, one of the most common method of social research. Moreover, the digital becomes research field of interest too, because it entails of considering not entirely negligible effects on the society (Ruppert et al., 2013).

METODOLOGY

Survey is probably the most common method exploited in the field of *descriptive research* methodology. The American Office of Research Integrity defines descriptive research as "a study in which information is collected without changing the environment" (Nebeker et al., 2015); this type of research is used to describe "what exists" with respect to variables or conditions in a

situation.

Other methods can be referred to descriptive research, such as correlation study, which investigates the correlation between two or more variables, and the developmental studies, which try to determine changes over time. Nevertheless surveys are the most appropriate descriptive instruments to obtain information concerning the current status quo of the studied phenomena (Salkind, 2011).

Also if the survey could be the most suitable method for studying LGBTQ population(s), to conduct a good survey some efforts have to be carried out. Below are listed some of the aspects on which the survey design have to focus on:

- **sample size**: the "rule of thumb" is that larger the sample size is, more statistically significant it is and more robust are the results. In other words, this rule means that there's less of a chance that obtained results happened by coincidence.
  Working with social networks helps from this point of view, because it is possible to reach a huge number of users, belonging to the target population(s), in an easy, cheap and efficient way.
- **Questionnaire drafting:** which aspects of the daily life of LGBTQ people to investigate? And how? To answer to these important questions, several qualitative interview will be carried out. In this way people belonging to the LGBTQ populations will address the knowledge about themselves and they will help the research to pose properly the questions to submit to interviewed people.
- **Sampling bias**: in statistics, a sampling method where some elements of the target population(s) don't have opportunity of selection (or the selection probability can't be precisely determined) is called *nonprobabilistic sampling*.
  Although a nonprobabilistic sampling doesn't allow to describe in a statistically significant way the results, the survey can get more robust exploiting methods like *snowballing*. This method is a type of convenience sample, and it might, if done correctly, approximate a random sample, giving representativeness to the sample.

Survey design should focus on these three aspects to give reliable results on the phenomena. Let's try to analyze in depth these methodological problems and to give plausible solutions to them.

RECRUITING SAMPLE UNITS ON INSTAGRAM TO INCREASE THESAMPLE SIZE

Social networks got our daily "interlocutors". We use them to share our opinion, to keep in touch with friends, to meet new people with similar interests (Ceron et al., 2013). All these reasons can lead social network users to index their post, making them easily traceable by other users interested on a certain topic. This can be achieved through the simple and effective use of hashtag, a word (preceded by the characteristic symbol #) used in the tagline, that allows users to find all the posts tagged using that word. Developed on IRC[4] system during the 80s, the use of hashtags became viral with Twitter and then it was adopted on Instagram too, to make the posted pictures tagged according to their content or to other kind of information related to the photo.

An hashtag can be a feeling (#happiness), a place (#igersroma), a movement (#metoo), a person (#cr7) or an information about the user who posted the photo, such as job (#nurselife), appearance and look (#skinny) or sexual orientation.

---

[4] Internet Relay Chat: a client software used to "communicate, share, play or work" with others on IRC networks, broadly used in 90s and 2000s all over the world

Instagram slowly is starting to be used in social research (Munk et al., 2016; Chung et al., 2016), but usually by paying more attention to pictures, rather than to their captions. Tagline could be really informative: finding the most common hashtag used to describe and tag pictures of users belonging, or supporting, the LGBTQ community can lead to obtain a wide frame of users to interview for the survey. Different hashtags identify different people, but we are interested in surveying the whole LGBTQ people so we have to be as inclusive as possible: last June, Instagram celebrated the Pride Month coloring of rainbow some hashtags[5], identified by the GLAAD (an important international organization at the forefront LGBT+ rights), as the hashtags that are often used in the LGBT+ community. Some of these hashtags can identify the many components of the population(s) and, used in the tagline of a picture, they could clearly describe the sexual orientation of the user.

In the following table the order of magnitude of the posts containing a certain hashtag, all over the world and of those ones referred to Italy, is reported:

TABLE 1.
NUMBER OF INSTAGRAM POSTS CONTAINING HASHTAG (UP TO 20/09/2018)

Hashtag	n. posts	Hashtag	n. posts
#gay	59'700'000	#gayitalia	228'000
#lesbian	15'300'000	#lesbianitaly	1'687
#bisexual	7'100'000	#bisexitalia	331
#transgender	7'000'000	#transitalia	849
#queer	6'500'000	#queeritaly	113
#loveislove	13'000'000	#loveisloveitaly	6
#instagay	30'600'000	#instagayitalia	2339
#lgbt	22'400'000	#lgbtitalia	26'100
#lgbtq	7'600'000	#lgbtqitaly	210

The volume of the number of posts, coming from all over the world, is massive and also the number of the posts tagged with an Italy-referred hashtag is considerable. The different declinations of the LGBTQ population are not represented in the same way, and there is a strong over-representation of gay people, rather than lesbian or bisex. Transgender people (numerically the smallest component of the LGBTQ) on the contrary are well represented.

The aim of reporting the number of post containing Italy-referred hashtag is to understand whether conducting a country based survey would be a reliable measure. From a data-collection point of view it would be easier, mainly for avoiding language questionnaire problem.

Using software which are able to automatically download posts, containing a certain hashtag, from Instagram can lead to a important number of people to contact and to interview in a direct, cheap and careful way, as already said. The most friendly software used for downloading posts containing one or more hashtag is called *Tagsleuth*[6]. This on-line tool asks an input hashtag (or a set of them) and gives in output a list (in pdf and/or in excel) of all post containing that (or those) hashtag from several social networks (Twitter, Vine, Tumblr and Instagram), as shown in figure 1:

---

[5] #pride #gay #pride2018 #lesbian #bisexual #trans #queer #asexual #loveislove
#instagay #lgbtpride #genderqueer #intersex #gaypride #transgender
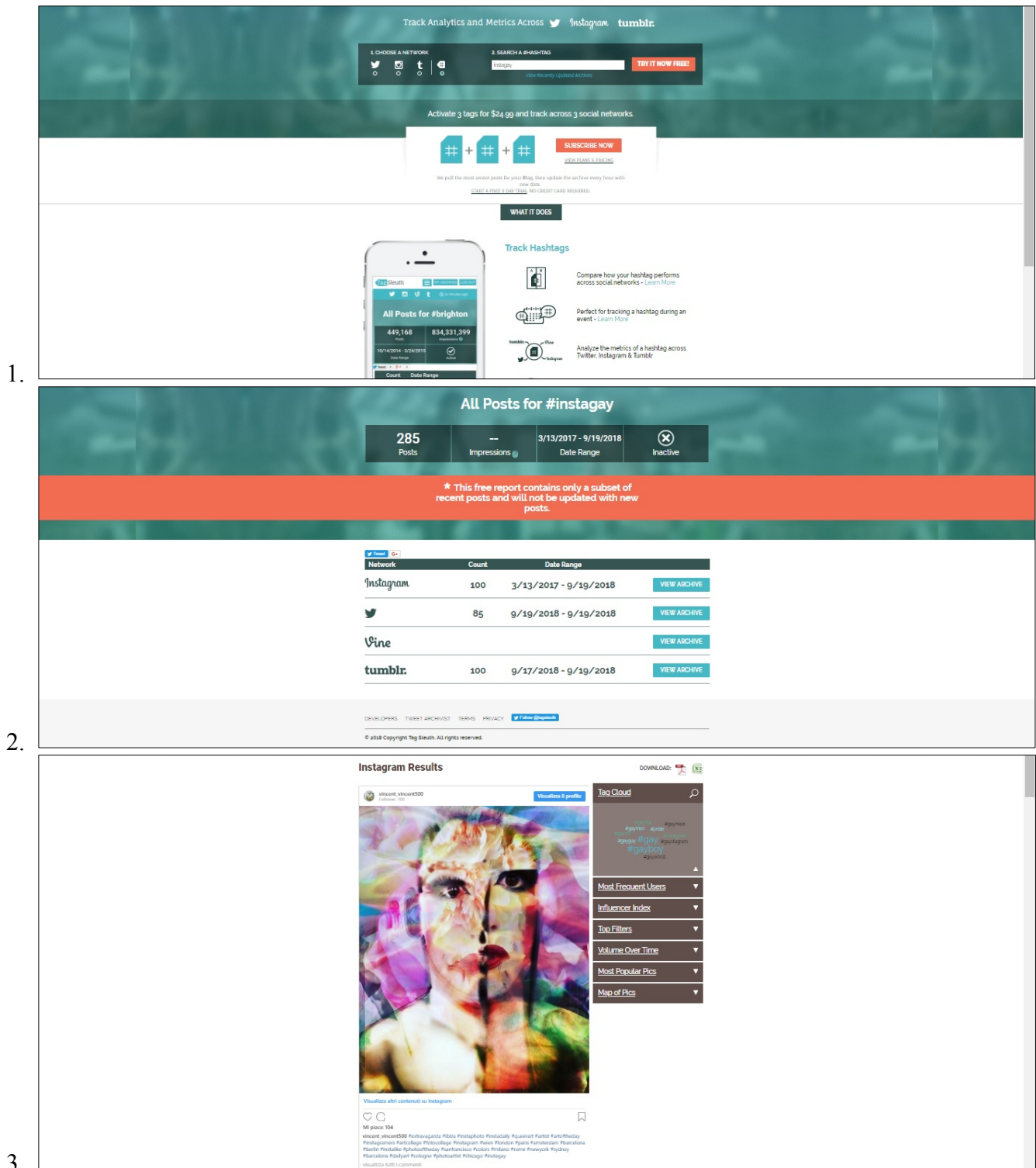[6] https://www.tagsleuth.com/

1.

2.

3.

Fig. 1 - Tagsleuth Webpages

In this basic example we have looked for the list of the posts containing the hashtag *#instagay* on Instagram. A set of the last post containing this hashtag have been downloaded and put in an Excel table, as shown below:

TABLE 2.
LIST OF THE FIRST 7 POST CONTAINING THE EXAMPLE HASHTAG #INSTAGAY, PRODUCED BY THE SOFTWARE TAGSLEUTH

ID	User Name	Universal Time Stamp	Caption	Location	Hashtags
187070	vincent_vincen	9/17/2018 10:59:01 PM	#extravagan:		extravaganza rome cologne milanc
187193	bllckpiik	9/19/2018 3:38:12 PM	....#gay		moda friends likeback like4like ga
187193	yupitsscottie	9/19/2018 3:38:07 PM	Daily remind		igdaily wewillgetthere vegas insta:
187191	florianderoulle	9/19/2018 3:04:26 PM	#Mangez équ		fitmotivation fitnessmotivation gyi
187180	rob.ler	9/19/2018 11:32:41 AM	"Aladdin" #d		disney cartoon like4like queer gay
187178	lukazschett	9/19/2018 10:58:02 AM	Can't wait to	52.9492,-1.145	gayboy swimsuit gayitaly instagay
184160	sbstien_	8/8/2018 7:21:37 PM	#picoftheday		followgay gaylike now gayboy veg:

As already said, it's quite easy to understand how using software which are able to automatically download posts, containing a certain hashtag, can lead to a considerable number of users to contact and to consequently interview in an easy, quick and cheap way.

QUESTIONNAIRE CONSULTATION

Once obtained a list of Instagram user to contact, a questionnaire will be sent.
Drafting a questionnaire about sexual orientation and about LGBTQ people's experiences -such as public perceptions and responses to homophobia, discrimination, the social context of being an LGBTQ person- is not trivial.
The technical reports of the LGBTQ surveys carried out till now, mainly the one planned and conducted in 2012 by the European Union Agency for Fundamental Rights (FRA, 2012), showed that writing a questionnaire can be a really scrupulous job and that's the reason why, in our case, qualitative interview on LGBTQ people will be carried out before designing effectively the questionnaire. This will allow both to identify the most important aspects to study, and how to implement it considering the sensitivity of the questions and the difficulty of defining the concepts characteristic of the gender studies.
In this way a part of the target population can directly participate to the lengthy consultation and to the meticulous examination of the questionnaire, with the aim of finalizing it in the form that will be submitted to users, listed by Tagsleuth, through Instagram.
This consultation process will pay attention on the terminology, the significance, the layout and the sequence of the question, with the aim of draft a set of questions to ask in the most proper way.

SNOWBALLING TO GIVE REPRESENTATIVENESS TO THE SAMPLE

The third aspect on which the survey design has to focus is the sampling bias.
The sample of LGBTQ individuals to include in the survey, and to select for answering the questionnaire, is definitively a non-probabilistic one. Because there is not a frame of the target population to select a sample from. As it's not possible to calculate the inclusion probability of every sampling unit, and hence the sampling weights, it's not possible to make inference on it. So we cannot extend the sampling results to the whole population in a statistical way, but in methodological literature several *purposive sampling methods* are presented as the solution to solve this statistical problem.
Snowballing, is a type of purposive sample, useful for the researchers who are trying to recruit people who are difficult to identify or, rare and elusive, as we defined LGBTQ population(s) above.

Snowballing can be used to ease data collection: find one person who qualifies to participate, ask him or her to recommend several other people who have the traits we are looking for. From there participant list can grow (Abdul Quader et al., 2006).

In the case of the LGBTQ planned survey, we could ask, at the end of the questionnaire to suggest some (from 2 to 5) Instagram users with the same sexual orientation of the interviewed, and interview them in turn. This suggestion can lead to interview also people who don't come out on Instagram because they don't use the hashtags analyzed in the tagline. Using snowball method entails two main benefits. Firstly, it obviously increases the selection frame for the survey, because we are not interviewing anymore just people using coming-out hashtags. Secondly, snowball can approximate a random sample and so it gives more robust and reliable results (Abdul Quader et al., 2006).

DATA COLLECTION THROUGH INSTAGRAM

In 2016 Coffman wrote that "the size of the LGBT population and the magnitude of anti-gay sentiment are substantially underestimated" because people were not ready to answer truthfully to an official statistical questionnaire about their sexuality. Moreover, the standard research approach used on most social surveys was not suitable for studying phenomena of the LGBTQ population.

People involved in a survey about sensitive arguments want to be reassured about privacy conditions, anonymity, aim of the research and credibility of the institution which is conducting the research. That's the reason why an Instagram page to contact the users selected for the survey has been created. The instagram page is called "*Over The Rainbow Project*" because the aim of the research is to observe, from an impartial but discrete point of view, the LGBTQ world, represented by the colors of the rainbow, that reflect the diversity of this community. In this page will be posted, with pictures and text, the aim of the research and other information about it. The most common LGBTQ hashtags, analyzed above, will be used, and following request will be send to all those people involved in the survey and to the most important LGBTQ Instagram pages

This procedure is aimed to convince people to collaborate with the project, because of the good research aim, responding to the survey and to reduce the total number of non-response that could be really high in this type of social survey.

FURTHER STEPS

This planning paper has described as accurately as possible the steps that we are planning to implement to design and conduct a survey on LGBTQ population(s).

The characteristics of the studied population entail undeniable analytic difficulties, but using innovative data sources, can lead to a better knowledge about social phenomena. In fact, the rule of thumb of this research is to use Instagram for recruiting people to interview, bypassing the associations and to get information about a wider population. Obviously, using data coming from a social network entails important considerations. From a sociological point of view it is important to take into account the role of the web in our life and how we represent ourselves on it; that's the reason why our theoretical framework cannot help but include Digital Sociology, in addition to gender studies, that are of course needed when investigating sex, gender and sexual orientation.

In this research project the methodology becomes as important as the studied field and the attention paid to conduct, interviews before, and a survey after on a large number of individuals, can lead to an acquaintance with the characteristics of the LGBTQ population(s), which are difficult to define

and to detect. The hope is that getting a deeper knowledge of the phenomenon could explain help to promote valid social policies for gay, lesbian, bisexual, transgender and queer people.

REFERENCES

Abdul Quader, Abu S., Douglas D. Heckathorn, Courtney McKnight, Heidi Bramson, Chris Nemeth, Keith Sabin, Kathleen, Gallagher, and Don C., Des Jarlais. 2006. "Effectiveness of Respondent-Driven Sampling for Recruiting Drug Users in New York City: Findings from a Pilot Study." *Journal of Urban Health : Bulletin of the New York Academy of Medicine* 83(3):459–476.

Antonelli, Francesco, and Elisabetta Ruspini. 2016. "Il futuro della ricerca su generi e orientamenti sessuali". Pp. : 247-275 in *Sociologia del futuro Studiare la società del ventunesimo secolo*, edited by Fabio, Corbisiero and Ruspini, Elisabetta. Padova: CEDAM.

Arcigay. 2005. "MODIDI - Sesso e salute di lesbiche gay e bisessuali oggi in Italia". *Summary document of main sociologic and health results*. Retrieved October 1st, 2018 (https://www.arcigay.it/wp-content/uploads/modidi_opuscolo.pdf)

Barad, Karen. 2003. "Posthumanist performativity: Toward an understanding of how matter comes to matter." *Journal of women in culture and society* 28(3):801-831.

Barad, Karen. 2007. *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.

Barbagli, Marzio, and Asher Colombo. 2007. *Omosessuali moderni. Gay e lesbiche in Italia*. Bologna: Il Mulino.

Butler, Judith. 1990. *Gender trouble and the subversion of identity*. New York and London: Routledge.

Carey-Mahoney, Ryan. 2016. "*LGBT-who? Decoding the ever-changing acronym.*" The Washington Post, June 10, 2016. Retrieved October 1st, 2018 (https://www.washingtonpost.com/news/soloish/wp/2016/06/10/lgbt-who-decoding-the-ever-changing-acronym/?noredirect=on&utm_term=.f1f1f598f73b).

Ceron, Andrea, Luigi Curini, and Stefano M. Iacus. 2013. *Social Media e Sentiment Analysis: L'evoluzione dei fenomeni sociali attraverso la Rete. Vol. 9.* Milano: Springer Science & Business Media.

Chung, Chia-Fang, Elena Agapie, Jessica Schroeder, Sonali Mishra, James Fogarty, and Sean A. Munson. 2017. *When Personal Tracking Becomes Social: Examining the Use of Instagram for Healthy Eating*. Proceedings of the SIGCHI conference on human factors in computing systems . CHI 2017 Conference. Retrieved October 1st, 2018 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5432132/)

Coffman, Katherine B., Lucas C. Coffman, and Keith M. Marzilli Ericson. 2013. "The Size of the LGBT Population and the Magnitude of Anti-Gay Sentiment are Substantially Underestimated". *NBER Working Paper* No. 19508. Retrieved September 17th, 2017 (https://www.nber.org/papers/w19508)

Creswell, John W., and Vicki L. Plano Clark. 2011. *Designing and conducting mixed methods research*. Los Angeles: Sage.

Daas, Piet, and Marco Puts. 2014. "Social Media Sentiment and Consumer Confidence*." Statistics Paper Series*, No. 5:1-26 September 2014. Retrieved February 14th , 2018 (https://www.ecb.europa.eu/pub/pdf/scpsps/ecbsp5.en.pdf)

Daniels, Jessie, and Karen Gregory.2016. *Digital sociologies*. Bristol: Policy Press,.

De Rosa, Eugenia, and Francesca Inglese. 2018. "Diseguaglianze e discriminazioni nei confronti delle persone LGBT: quale contributo dalla statistica ufficiale?" *Rivista Italiana di Economia Demografia e Statistica* 72(4):77-88.

FRA. 2012. *EU LGBT survey Technical report Methodology, online survey, questionnaire and sample*. Retrieved August 18th, 2018, (https://fra.europa.eu/sites/default/files/eu-lgbt-survey-technical-report_en.pdf)

Haraway, Donna J. 1991. *Simians, cyborgs and women: The reinvention of nature*. New York: Routledge.

Haraway, Donna J. 1997. *Modest−Witness@Second−Millennium.FemaleMan−Meets− OncoMouse: Feminism and Technoscience*. New York: Routledge.

ISTAT. 2011. *La popolazione omosessuale nella società italiana*, Statistiche report. Retrieved August 13th, 2018, (https://www.istat.it/it/archivio/62168)

Johnson, R. Burke, Anthony J. Onwuegbuzie, and Lisa A. Turner. 2016. "Toward a definition of mixed

methods research." *Journal of mixed methods research* 1(2): 112-133.

Lupton, Daniel. 2013. *Introducing digital sociology*. Sydney: University of Sydney.

Lupton, Daniel. 2015. *Digital sociology*. New York and London: Routledge.

Marres, Noortje. 2012. "The redistribution of methods: on intervention in digital social research, broadly conceived." *The sociological review* 60: 139-165.

Munk, Kristian, Mette Simonsen Abildgaard, Andreas Birkbak, and Morten Krogh Petersen. 2016. "*Re-Appropriating Instagram for Social Research: Three Methods for Studying Obesogenic Environments*." Conference paper. *Retrieved August 27th, 2018,* (https://www.researchgate.net/publication/304918866_Re-Appropriating_Instagram_for_Social_Research_Three_Methods_for_Studying_Obesogenic_Environments)

Nebeker, Camille, and Araceli López-Arenas. 2015. *Building Research Integrity and Capacity (BRIC): An Interactive Guide for Promotores/Community Health Workers*. San Diego: BRIC Academy.

Rizzo, Amelia. 2018. "Management dell'identità sui Social Network*." PSYCOMEDIA Telematic Review. Retrieved October 15th , 2018, (*http://www.psychomedia.it/pm/telecomm/massmedia/rizzo.htm*)*

Ruppert, Evelyn, John Law, and Mike Savage. 2013. "Reassembling social science methods: the challenge of digital devices." *Theory, Culture & Society* 30(4): 22-46

Ruspini, Elisabetta. 2014. *Le differenze di genere. Sociologia. Problemi, teorie e intrecci storici.* Roma: Carocci.

Saraceno, Chiara. 2003. *Diversi da chi? Gay, lesbiche e transessuali in un'area metropolitana.* Milano: Guerini e Associati.

Snee, Helene, Christine Hine, Yvette Morey, Steven Roberts, and Hayley Watson. 2016. *Digital Methods for Social Science - An Interdisciplinary Guide to Research Innovation*. New York and London: Palgrave Macmillan ed.

Techopedia. 2018. *Digital Revolution.* Retrieved September 2nd, 2018, (https://www.techopedia.com/definition/23371/digital-revolution)

Zevallos, Zuleyka. 2014. "*Sociology of Gender.*" *The Other Sociologist.* Retrieved July 10th, 2018 (*https://othersociologist.com/sociology-of-gender/*)