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## Section 1

### Digital Social Research: Challenges and Opportunities

*This section collects epistemological and theoretical contributions aimed at introducing challenges, opportunities, characteristics, peculiarities, and future scenarios of digital social research.*

#### Chapter 1

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*Biagio Aragona, University of Naples Federico II, Italy*

The debate on the consequences that big data and computational techniques have generated in social sciences has developed from two opposite extremes. A consistent group of scholars today supports an active commitment of sociologists in dealing with the technological dimension of social investigation. The works developed by these “digital sociologists” focus on the definition of a method of social research that adopts a critical posture on the role that digital technology must have in scientific research but, at the same time, creative on the possibilities offered by technology to research. This posture requires great attention to the epistemology of the digital.

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*Emiliana Mangone, University of Salerno, Italy*

Many approaches to the study of the social sciences rely on the interpretation of reality itself, giving rise to the quantitative/qualitative dispute. These methods cannot exist one without the other – nor can they necessarily find themselves on opposite poles. To follow one does not mean to forsake the other; on the contrary, both offer the opportunity to observe from different angles aspects of the phenomenon investigated, granting more effective readings of its complexity. While sociology has reproduced its various stances in its scholarly analyses, the most recent debate has relinquished this debate to focus on two alternative features. Both pertain to sociology and the role of social science researchers: the conjugation between theory and empirics and the crisis of sociology in providing answers to societal changes. This contribution aims to address the issues related to the conjugation between theory and empirical research

considering digital research methods. The author outlines their strengths and weaknesses without forgetting the original status of sociology as a science.

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*Felice Addeo, University of Salerno, Italy*  
*Valentina D'Auria, University of Salerno, Italy*

The digital society is a research object that still lacks a clear and shared definition, as it is always in progressive and whirling transformation. From a methodological point of view, digital society is then a fruitful ground for experimentation and innovation. However, the unceasing flourishing of online social practices and the innovative ways to frame into data the online activities of individuals make the knowledge drawn from the web always uncertain, revisable, and at high risk of obsolescence. Social research tried to face the challenges posed by the digital society first by adapting the established social research methods to the new digital environments and then creating new ones. Neither approach has been able to define which are the most valid and reliable methodological tools to study the digital society, nor to draw a shared vision that would allow social research to advance. This chapter discusses the challenges and opportunities that the digital society poses to social research methodology and reflects on the need for new epistemological and methodological positions.

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*Costantino Cipolla, University of Bologna, Italy*

Sociology is a discipline inevitably based on interpretative categories of social reality derived from a specific historical phase. In a period that is increasingly defined as a new era or digital society, can sociological knowledge not be upset by this overload of changes of every kind and nature? And can these changes not involve all identity components of sociology, namely theory, research, and the usability of its knowledge? Given this, it seems rather evident that this volume is the sign of the times and testify the variety and flexibility of digital methods. The author limits to dealing schematically with two methodological components that are constitutive of the digital revolution: the shift from the traditional and glorious ethnography to the new and emerging netnography, especially as regards the qualitative side, and, on the more properly quantitative side, the overwhelming and boundless spread of big data. A brief and selective description of these “transitions” will be complemented by a thoughtful evaluation of their potential for the future in the peculiar field of inquiry.

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The formulation of Charts for research ethics and Codes of conduct has been growing in the last few decades, on the one hand due to a renewed awareness of the ethical dimensions of research governance and the relationship between regulators and researchers, and on the other hand for the expansion of possibilities achieved by innovation in information and communication technologies. The voluntary involvement of research participants, risk management and prevention, data protection, community engagement, reflexivity of researchers are some of the centres of gravity of a debate that involves

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*Francesco Marrazzo, University of Naples Federico II, Italy*

The post-API age in digital research has brought immediate consequences in research activities based on (big) data owned by online platforms. Even some initiatives made by online platforms themselves, mainly based on funding specific research projects, have not found a warm reception in the research community and have been considered not enough to do research on the most relevant phenomena of the digital public sphere. Therefore, since the access-to-data has become a relevant issue even for civil society organizations and public actors dealing with digital ecosystem, a specific brand-new issue network among public institutions, NGOs, and researches has been established. The technical expertise, the shared interests, and the fulfilment of similar goals in shaping public values in the online platforms activities seem to be crucial to the permanence and even to the institutionalization of such an issue network.

### **Section 2**

#### **Digital Data Collection and Capture**

*This section will discuss issues related to data collection and capture by opening the discussion to elements such as primary and secondary data, scraping or APIs, data access, sampling biases, ethics, sociotechnical mediation, post demography, and representativeness.*

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*Maria Paola Faggiano, Sapienza University of Rome, Italy*  
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The authors reconstruct the system of advantages and limits of e-mail data collection and web survey technique in social research; for this purpose, they examine in detail a set of studies that stimulate multiple reflections, both with reference to the overall value of survey research and on the role of the web for social sciences. The subject of all selected research designs is a complex social problem that involves the internet, both focus for observation and tool for research: voting intentions, social effects of the pandemic, the quality of university life, technology addiction. In each research experience, for different reasons—above all due to the lack of a single, self-sufficient data collection mode—, the authors favor the integration of research strategies: 1) mixed-modes of data collection, 2) follow-up panel web survey, 3) mixed methods research, 4) introduction of a preliminary pilot study, 5) multilevel survey.

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*Lucia Velotti, City University of New York (CUNY), USA*

The chapter will focus on using a web survey administered using social networks as a gathering point to

collect data on people’s risk perception and their undertaking of protective behaviors during the Italian COVID-19 crisis. This was an unprecedented moment in the digital age when there was no possibility of physical contact due to the limitations imposed on coexistence by the health emergency to stem the spread of the virus. This is when digital connections are the only link among people, and the only tool that can be used for doing social research is trying to satisfy the desire for knowledge without limiting the potential for knowledge production even in times of profound uncertainty and several limitations. Analyzing the participants’ feedback on web surveys during times of deep uncertainty allows the authors to show what is clearly happening to social research currently. The discussions will be supported by an auto-ethnography conducted on comments left by the respondents to the survey.

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In today’s world, which has been administered by computers and artificial intelligence in many areas, online data gathering has become an inevitable way of collecting data. Many researchers have preferred online surveying, considering the advantages of this method over the classical ones. Hence, the factors that may affect the response rate of online surveying have become a prominent research topic. In line with the popularity of this issue, the purpose of this chapter was to clarify the concept of online surveys; give information about their types, advantages, and usage; and investigate the factors that affect the participants’ response behaviors. Besides the discussions on the theoretical framework of online surveying, an online survey aiming to determine the factors affecting the participation in online surveying was administered to a group of people to investigate the response behaviors thoroughly. The findings revealed that rs might affect ants’ response behaviors to online surveys in various ways radically.

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*Suania Acampa, University of Naples Federico II, Italy*

*Giuseppe Michele Padricelli, University of Naples Federico II, Italy*

*Rosa Sorrentino, University of Naples Federico II, Italy*

Digital methods allow social researchers and IT professionals to work together to produce instruments to comprehend current social phenomena. To develop these tools, they felt the need to “follow the medium” by reorganizing their data collection and analysis strategies on what they learned from the medium. For many years, digital research has been based on application programming interfaces (APIs) querying, an approach based on the extraction of records of data made available by the platforms through their programming interfaces. But what happens when the way to “follow the medium” changes? This contribution addresses the methodological challenges and the potential alternatives in research activities that affect the researchers’ role due to recent restrictions. Two examples of research experience conducted before the APIs’ closure are proposed in order to lead towards an initial reflection on its critical effects.

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*Jessica Camargo Molano, International Telematic University Uninettuno, Rome, Italy*

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In recent years, artificial intelligence, through the rapid development of machine learning and deep learning, has started to be used in different sectors, even in academic research. The objective of this study is a reflection on the possible errors that can occur when the analysis of human behavior and the development of academic research rely on artificial intelligence. To understand what errors artificial intelligence can make more easily, three cases have been analyzed: the use of the IMPACT system for the evaluation of school system in the District of Columbia Public Schools (DCPS) in Washington, the face detection system, and the “writing” of the first scientific text by artificial intelligence. In particular, this work takes into consideration the systematic errors due to the polarization of data with which the machine learning models are trained, the absence of feedback and the problem of minorities who cannot be represented through the use of big data.

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Learning Algorithms of Sentiment Analysis: A Comparative Approach to Improve Data Goodness 176

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*Ciro Clemente De Falco, University of Naples Federico II, Italy*

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The uncritical application of automatic analysis techniques can be insidious. For this reason, the scientific community is very interested in the supervised approach. Can this be enough? This chapter aims to these issues by comparing three machine learning approaches to measuring the sentiment. The case study is the analysis of the sentiment expressed by the Italians on Twitter during the first post-lockdown day. To start the supervised model, it has been necessary to build a stratified sample of tweets by daily and classifying them manually. The model to be test provides for further analysis at the end of the process useful for comparing the three models: index will be built on the tweets processed with the aim of detecting the goodness of the results produced. The comparison of the three algorithms helps the authors to understand not only which is the best approach for the Italian language but tries to understand which strategy is to verify the quality of the data obtained.

### **Section 3**

#### **Digital Ethnography**

*Ethnography has been one of the methods that has been most traversed by change with the advent of digital showing the two sides of the coin between benefits and new challenges. The chapters of this section try to trace a path of methodological and applicative reflection aimed at amplifying the contemplation in social research in the coming years.*

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*Angela Delli Paoli, University of Salerno, Italy*

The term ethnography comes from the Greek ethnos (folk, the people, cultures) and gráphein (to write, to describe), and therefore, its literal meaning refers to the description of cultures. The current perspectives of ethnographic research are widening to digital contexts for several interrelated motivations: decolonization, globalization, information and communication technologies (ICTs). The classical loci of digital ethnography is represented by online communities, delimited digital spaces of social aggregation around a given domain of interest. However, in the last years, these privileged sites are complemented or sometimes substituted by social media sites and metadata in digital ethnographic research. As a result,

new sites for ethnographic fieldwork are emerging fostering new types of ethnographic practice. The difference in digital ethnographic fields imply an internally diverse array of approaches. The chapter starts from the origins of ethnographic research to investigate its digital developments, methodological challenges, and variety of approach.

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Contemporary society changes its social perspective from an anthropocentric environment to a space in which intelligent algorithms, present in every digital device, are increasingly acquiring a status of subject and less of object. Existential practices change at every moment, at every access to these intelligent agents who, in addition to supporting the user's requests, become anticipatory and prescient, demonstrating how it is essential, today, to sociologically analyse society through the image it gives the car. The intent of the contribution, mainly of a theoretical nature, will be to dialogue on the centrality of artificial intelligence as a leading actress of the multiple manifestations of digital cultures and practices, with the aim of renewing the debate on reflection on contemporary complexity starting from the event.

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This chapter contributes to the current methodological debate on digital, internet-based studies in social research. Based upon an introductive analysis of the research's perspectives, trajectories, and stages that have brought the online social spaces into social research, the chapter focuses on the advantages of combining quanti-quali approaches for approaching online complexity. In particular, the authors offer a deep discussion concerning the value, the methodological, and ethical challenges of nethnography and social network analysis (SNA) methods for inquiring online social research by proposing a possible emerging methodological framework guiding further empirical studies.

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<i>Gabriella Punziano, University of Naples Federico II, Italy</i>	
<i>Barbara Saracino, University of Bologna, Italy</i>	

In this chapter, the goal is to formalize the main differences between the applications of ethnographic techniques when they are framed in virtual or digital methods. To be more systematic in presenting these differences, a synoptic table will be offered. This table will examine the main breaking points between the methods and will be used to organize a marked comparison between studies chosen from the most cited articles of the last 20 years. In addition to testing the effectiveness of the proposed classification scheme, the purpose of the comparison conducted between the most cited articles will be to highlight where the changes that have occurred can lead to advances in the method and where these changes have become new limits on which it is necessary to continue to reflect in order to develop the methods involved and place them clearly in line with the evolution of the digital scenario.

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*Riccardo Pronzato, IULM University of Milan, Italy*

The role of digital platforms in everyday life is a concern within different research fields; therefore, several authors have supported the need to investigate them and their underlying meshing of human and computational logic. In this chapter, the authors present a methodological proposal according to which auto-ethnographic diaries can be fruitfully employed to examine the relationship between individuals and algorithmic platforms. By drawing on a critical pedagogy approach, they consider auto-ethnography both as a practice of access to algorithmic logics through rich first-hand data regarding everyday usage practices as a response to datafication. The core idea behind this narrative method is to use inductive self-reflexive methodological tools to help individuals critically reflect on their daily activities, thereby making their consumption of algorithmic contents more aware and allowing researchers to collect in-depth reports about their use of digital platforms and the following processes of subjectification.

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This chapter discusses the usefulness of netnography as a research method in the digital banking context. Netnography has become a relative attractive data collection and data analysis method in some social science research areas but is still relatively unknown in financial research. Compared with other research methods, netnography seems to have some advantages in the digital banking world, such as real-time customer feedback. Moreover, virtual observations can be used not only by researchers but also by bank representatives to, for example, find out how bank customers can contribute to value co-creation.

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*Carlos Rodríguez-Hoyos, University of Cantabria, Spain*

*Adelina Calvo-Salvador, University of Cantabria, Spain*

*Aquilina Fueyo Gutiérrez, University of Oviedo, Spain*

This chapter describes three research techniques used within the field of digital ethnography aimed at understanding the digital culture of adolescents from qualitative and participatory perspectives. The authors carry out a theoretical review of some of the underlying principles of digital ethnography and creative and participatory research techniques. The authors then describe three research techniques based on the following methodological approaches: the mirror method, participant field notes, and digital visual cartographies. The mirror method technique analyses how adolescents construct their subjectivity through the images they use in social networks. Participant field notes are designed to facilitate the involvement of the young people in the field notes taken by the researchers, thus breaking with their private nature and providing opportunities for enhanced reflexivity. Digital visual cartographies aim to help understand, among other issues, the spatial dimension associated with the use of digital devices by young people.

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*Claudia Cantale, University of Catania, Italy*

The main argument of the chapter is the analysis of the reading and writing behaviour on Wattpad during the phases of lockdown in Italy for the COVID-19 pandemic. The COVID-19 pandemic represents the first great event of ‘data society’ reactions making several authors reflect on various aspects and thoughts about social impact of tech ecosystems. Nowadays, it becomes essential to understand the role that digital technologies and media have had to soothe feelings related to social isolation and physical distancing measures. Thus, as widely acknowledged, besides providing data for social research in many aspects of life, the digital context also suggests above all innovated methods enforced by the physical distancing. This research has explored about 600 stories edited on Wattpad that have been selected through the query “Covid.” The aim of the analysis is to map collective imaginary of users about the COVID-19 pandemic within a digital medium for fanfiction, combining three fundamental approaches of digital methods.

### Section 4

#### Digital Methods: Among Transposed and Mixed Approaches

*The digital methods that have exploded in recent years in social research have slowly taken on extremely peculiar forms, definitions, and characterizations, and this combined set of reflections is systematized in the chapters collected for this section by providing the reader with defining elements and application procedures that recall transposed methods—such as content analysis, social network analysis, or visual sociology—and connoted approaches, such as mixed methods.*

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*Gabriella Punziano, University of Naples Federico II, Italy*

The explosion of platform social data as digital secondary data, collectible through sophisticated and automatized query systems or algorithms, makes it possible to accumulate huge amounts of dense and miscellaneous data. The challenge for social researchers becomes how to extract meaning and not only trends in a quantitative as well as in a qualitative manner. Through the application of a digital mixed content analysis perspective to data analysis, in this contribution, the author will present the potentiality of a hybrid digitalized approach to social content. This perspective should be seen as an applied example of organizing a framework to guide the application of integrated methods of content analysis (quantitative and qualitative) but also integrated objects of analysis (individuals, relationships, and digital actions) on digital platform social data and to address their varied nature.

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Social media and social networks are pervasive in the daily use as well as in a number of applications. Social media and social networks are also intertwined, as the social medial platforms also offer the opportunity to develop and analyze social networks. Over the past two decades, there has been an explosion of interest in network research through social network analysis. Network research is “warm” today, with the number of articles on the topic of social media and social networks nearly tripling in the



past decade. This interweaving has been a further breakthrough within field research yielding explanations for social phenomena in a wide variety of new ways. Social network analysis (SNA) has been recognized as a powerful tool for representing social network structures and information dissemination on the web. Here, the authors review the kinds of things that sociologists have tried to explain using social network analysis and provide a nutshell description of the basic assumptions, goals, and explanatory mechanisms prevalent in the field, with emphasis on SNA research methodology.

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*Veronica Moretti, University of Bologna, Italy*

This chapter investigates how individuals interpreted and considered the audio-diary technique, understanding the interaction between the subject and the medium and the potential of new technological tools (e.g., smartphone, social network) in producing data. The research is based on a previous study conducted during the COVID-19 lockdown in Italy, more specifically, the transition from phase 1 to phase 2. Each participant—11 female and 6 male, between 28 and 45 years old, and living in the northern part of Italy—was asked to register one audio per day for a week (7-13 May). After this period, the author undertook a final follow-up semi-structured interview to evaluate how much the audio-diary had an impact both on people’s daily lives and on their way of expressing information. The data collected suggest a number of advantages and disadvantages to the use of audio-diary to collect individuals’ experience. The author will briefly describe the steps of AD technique by using the collected material (interviews) and what has emerged from the analysis of qualitative data.

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*Antonio Tintori, National Research Council, Italy*

*Giulia Ciancimino, National Research Council, Italy*

In the era of digital society, social research must devise innovative and adaptive methodologies in relation to new forms of communication and social interaction. The social distancing measures aimed at containing the spread of COVID-19 have produced the need for social sciences to face new research challenges by making the best possible use of information technology and tools. The researchers’ aim is to present an innovative method of remote participatory social research, which can be framed in the context of future studies. This method, called Delphi MIX, has been developed by CNR-Irpps researchers since 2003, and its last adjustment has been designed as a consequence of the coronavirus crisis. Delphi MIX is a method for participatory strategic planning. It can be understood as a political agenda that aims to a desirable and achievable future.

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*Eugenio Bagnini, Università di Bologna, Italy*

*Giovanna Russo, Università di Bologna, Italy*

The chapter proposes a methodological consideration on the use of mixed methods and the social opportunities of digital technologies in sports and wellness practices. The research carried out tries to answer the following question: What are the social repercussions and body care practices allowed by digital

technologies in the field of sports and physical activities for well-being? The contribution investigates the relationship that is established between practitioners of individual fitness and wellness sports activities, mainly in gyms, and the changes attributable to HTI (human technology interactions) with digital devices (apps and participation in online groups). Through a qualitative-quantitative methodology approach, the multifunctionality of the aforementioned digital tools (on a mediatic, playful, and technological level) were observed in order to verify whether the convergence between digital and sports social worlds is an instrument of only subjective well-being or may indeed prove as a new collective way of sharing, participating in, and adopting healthy practices.

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The Relevance of Relational Ontologies in Driving New Methodological Approaches in Virtual and Digital Contexts ..... 427

*Monica C. Scarano, FGES Université Catholique de Lille, France*

Qualitative methods are traditionally roots in the anthropological person-centered field. In a virtual and digitalized society, the presence and the agency of technology and devices need to be considered as well. The purpose of this chapter is to contribute conceptually to the reflection of a different ontological perspective in qualitative research. After presenting some qualitative methods centered on humanist ontology and its limits in a virtual and digital society, the author explains the interest to adopt relational ontologies to adapt some qualitative methods in order to overcome the previous limits. This chapter deals with emerging qualitative methods linked to relational ontologies that move away from the individualistic vision of the consumer and also focus on the technological object.

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Using Video Diaries in Social Science Research: Reflections on Past, Current, and Future Ethical Trends..... 442

*Amanda Vettini, University of Edinburgh, UK*  
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The focus of this chapter is the use of video-diaries in social research. The aim is to examine and reflect upon the particular ethical terrain and situated ethics of using visual diary method in social science research with different participant groups who arguably present specific ethical concerns, including children and older people, people with disabilities (either physical, cognitive, or psychiatric), and older people. The authors present a discussion of the specific ethical considerations arising from the use of this method due to the particular type of data it generates, namely audio and moving visual data. As such, the process of creating a video diary and the procedures involved in collecting and analysing video diary data are fundamentally different from a paper-based (non-digital) diary. For these reasons, it is important to step back and reflect on the situated ethics, including the digital ethics encountered when using this method.

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The Walkthrough Method: State of the Art, Innovative Aspects, and Application Fields ..... 461

*Michela Cavagnuolo, Sapienza University, Italy*  
*Viviana Capozza, Sapienza University, Italy*  
*Alfredo Matrella, Sapienza University, Italy*

Nowadays the social scientists are called to integrate within their studies new tools that modify and innovate the scientist’s typical toolbox. Digital platforms, media, and especially apps pose further

challenges to social scientists today, as they are an important place of significant socio-cultural, economic, health, relationships, and entertainment transformations. When studying digital technologies, in fact, it's important to pay attention to both their socio-cultural representations and technological aspects – since even design and data outputs have social and cultural influences. In this context, new research questions arise; among all the possible tools in the digital method toolbox, the walkthrough method is a noteworthy way to answer them. Starting from these considerations, this chapter aims to analyze, through a review of the literature, the birth and development of the walkthrough method in its various meanings to identify the innovative aspects and fields of application.

## **Section 5 Social Media Analysis**

*The object of analysis that receives more attention in social research in the digital era is certainly social media, and the techniques to extract, analyze, and systematize the contents proliferate in the operational field giving sight to very particular disciplinary, methodological, and ontological mixes. In this section, the authors offer an overview.*

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The Spatial Dimension in Social Media Analysis: Theoretical and Methodological Characteristics 488

*Ciro Clemente De Falco, University of Naples Federico II, Italy*

*Noemi Crescentini, University of Naples Federico II, Italy*

*Marco Ferracci, University of Naples Federico II, Italy*

In the data revolution era, the availability of “voluntary” and “derived from social media” geographic information allowed the spatial dimension to gain attention in digital and web studies. The purpose of this work is to recognize the impact of this research stream on some methodological and theoretical issues. The first regards “critical algorithm studies” in order to understand what algorithms are used. The second concerns how these works conceive the space. The last two issues concern the disciplinary areas in which these researches take place and which are the ecological units taken into account. The authors answer these questions by analyzing, through a content analysis, the researches extracted with the PRISMA methodology that have used Twitter as a data source. The application of this procedure allows the authors to classify the analysis material, moving simultaneously on the four defined dimensions.

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Personnel Discussing Educational Technology on Twitter..... 510

*Mete Akcaoglu, Georgia Southern University, USA*

*Charles B. Hodges, Georgia Southern University, USA*

*Lucas John Jensen, Georgia Southern University, USA*

Social media has become an important tool for informal teacher professional development. Although there is a growing body of research investigating issues across the US, there is a lack of research on teacher professional development taking place on Twitter in Georgia, USA. In this research, the authors applied digital methods to analyze 5,425 entries from educators participating in a state-level, weekly, synchronous chat about educational technology (#TECHTalkGA) on the social media platform Twitter. Findings include that participants utilized the chat for organization, planning, and classroom technologies, with a predilection toward specific hardware and software topics. Limitations and implications for future

research are discussed.

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Mapping the Mappers: Exploring the Communities of VGI Users Through OpenStreetMap Data... 526

*Francesca De Chiara, Bruno Kessler Foundation, Italy*

*Maurizio Napolitano, Bruno Kessler Foundation, Italy*

Volunteered geographic information (VGI) platforms generate crowdsourced layers where a vast amount of shared and shareable geo-information is available. Monitoring the informative reliability of these sources is an important task, and the main VGI project, OpenStreetMap is a good testing ground to investigate how the collective intelligence made of users' networks creates public knowledge. OpenStreetMap (OSM) can be defined as a language of representation of real geographical entities shared as web maps. Mappers often work in solitude, but they stick to and strictly respect the rules given by their community. The aim is to create a geographical database used by anyone for any purpose. The chapter explores the following questions: How many contributors are there? Where are they and what do they collect? What are the interactions between them? The chapter illustrates what can be read from the OSM data, the available tools, and what could help researchers to understand this community.

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Social Semiotics for Social Media Visuals: A Framework for Analysis and Interpretation..... 548

*Hossam Elhamy, Zayed University, UAE*

The social semiotics approach examines the meaning-making process in order to demonstrate how meaning is constructed in social actions and contexts. The rising interest of researchers in social media and its widespread use in society have both highlighted new challenges for data analysis. Social semiotics can provide a deep understanding of the visual grammar of the social media meaning-making process by assuming that this process is considered a social practice. The main objective of this chapter is to guide researchers and enable them to use the social semiotic approach as a research tool for the analysis of visuals in the social media environment. The chapter introduces the key elements, principles, assumptions, and rules of using the social semiotics approach in the analysis, understanding, and interpretations of social media visuals and how to explore the role played by visual elements in the meaning-making process in a social media within a specific social context.

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*Ilaria Primerano, University of Salerno, Italy*

*Giuseppe Giordano, University of Salerno, Italy*

The present study focuses on the usefulness of social network analysis in unveiling network patterns in social media. Specifically, the propagation and consumption of information on Twitter through network analysis tools are investigated to discover the presence of specific conversational patterns in the derived online data. The choosing of Twitter is motivated by the fact that it induces the definition of relationships between users by following communication flows on specific topics of interest and identifying key profiles who influence debates in the digital space. Further lines of research are discussed regarding the tools for discovering the spread of fake news. Considerable disinformation can be generated on social networks,

offering a complex picture of informational disorientation in the digital society.

### **Chapter 34**

Fostering Imagined Economies on Twitter: The Case of the Food Startup Economy in Italy ..... 589

*Vincenzo Luise, University of Milan, Italy*

*Patrizio Lodetti, University of Florence, Italy*

Startups are entrepreneurial organisations that aim to develop a scalable and disruptive business. However, these small ventures operate in an environment of extreme uncertainty. The startup economy takes place in the present but is directed towards the future. This chapter critically investigates in online and offline realms the circulation of imagined futures that create causal links to bridge the gap between the present economic scenario and potential futures in the Italian startup food economy. This work adopted a mixed-method approach framed in a qualitative exploratory strategy which was designed to integrate qualitative techniques and digital methods. This work concludes by highlighting the co-evolutionary process between online and offline realms. On the one hand, online narratives allow economic actors to perform in radical uncertain economic contexts, while, on the other hand, the offline practices give legitimacy and credibility to these potential future scenarios.

### **Chapter 35**

To Be #Celts Today: Features of a Neopagan Cult in the Social Media..... 615

*Francesco Amatruda, University of Salerno, Italy*

The aim of this chapter is to define the characters of the online neo-Celtic Italian society, especially their religious beliefs, through the observation of their activities on blogs and social media such as Facebook and Twitter. Social media became, in fact, the main diffusion channel for these religions, replacing forums and other kinds of online communities as virtual places where people are allowed to interact with others who share their own spirituality. Within neo-paganism, some groups belonging to this religion started, during the last decade, identifying themselves with a more specific name, that is neo-Celtic instead of neo-pagan, that clearly defines the group as a part of pre-Christian cultural heritage. In this chapter, the author will attempt to define the characteristics of these neo-pagan groups focussing on their self-constructed identity and their relationship with the larger society.

### **Chapter 36**

Methodological Directions for the Study of Memes..... 627

*Giulia Giorgi, University of Milan, Italy & University of Turin, Italy*

The chapter proposes an empirically oriented analysis of the memetic production on Instagram. Defined as multimodal cultural artifacts, combining visual and textual material to convey humorous messages, internet memes proliferate across the web, spawning new popular formats and layouts. However, many scholars still rely on outdated conceptualisations or limited samples for their studies. To anchor investigation on memes to the actual production, the research answers the questions: (1) Which meme formats are currently circulating online? (2) How do popular meme formats convey their message? To this end, a dataset of static images collected on Instagram was examined with qualitative visual and discourse analysis. Findings point at the possibility to adopt a bottom-up approach to recognize and classify memes, exploiting shared features of content and form. Furthermore, this categorization offers insights on the most productive mechanisms of meme production: contextually, results show a tendency towards formats that trigger identification, leveraging on relatable life situations.

### **Chapter 37**

The “Blue Check” Communication on the Pandemia Vaccine Campaign: Analysis of Tweets  
From Verified Accounts ..... 664

*Domenico Trezza, University of Naples Federico II, Italy*

*Miriam Di Lisio, University of Naples Federico II, Italy*

This chapter has the exploratory goal of understanding the attitudes and perceptions of ‘verified’ Twitter (VA) accounts about the COVID-19 vaccine campaign. Identifying their sentiment and opinion about it could therefore be crucial to the success of vaccination. A content analysis of tweets from the period December 24, 2020 to March 23, 2021 about the vaccine campaign in Italy was conducted to understand the semantic strategies used by VAs based on their orientation toward the vaccine, whether pro, anti, or neutral, and their possible motivations. Topic modeling allowed the authors to detect five prevalent themes and their associated words. A sentiment analysis and opinion analysis were performed on a smaller sample of tweets. The results suggest that ‘authoritative’ opinion about the vaccine has been very fragmented and not entirely positive, as expected. This could prove to be a critical issue in getting the vaccine positively accepted by the public.

### **Chapter 38**

Mining Flickr to Better Understand Tourist Behavior ..... 686

*Maria Giovanna Brandano, Gran Sasso Science Institute, Italy*

*Ludovico Iovino, Gran Sasso Science Institute, Italy*

*Daniele Mantegazzi, University of Groningen, The Netherlands*

The aim of this chapter is to present an automated instrument collecting the enormous amount of information available online allowing urban planners, public administrations, tourism services suppliers, and researchers to easily understand the spatial and temporal distribution of tourist behaviors towards tourist attractions in a specific area. Geo-located photos provided by Flickr are used to identify points of interest (POIs). The developed application has been tested with data automatically retrieved and collected in L’Aquila province (Italy) during the years 2005-2018. Given the richness of information, these data are able to show how POIs changed over time and how tourists reacted to the 2009 earthquake. Results demonstrate the importance of using analytics and big data in tourism research. Moreover, by using the province of L’Aquila as pilot study, it emerges that tourist behaviors change over time and space, varying among different typologies of tourists: residents, domestic, and international visitors.

### **Chapter 39**

I Correct or Canceling You: Political Correctness and Cancel Culture on Social Media – The Case  
of Twitter Communication in Italy ..... 708

*Cristiano Felaco, University of Naples Federico II, Italy*

*Jacopo Nocerino, University of Naples Federico II, Italy*

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This contribution studies the debated terms “politically correct” and “cancel culture” on Twitter and in particular investigates the meaning that people give when they label something or someone as politically correct or indicate a case of cancel culture in the Italian context, where they are not yet widespread as they are in the USA and Britain. A textual analysis of a corpus of tweets selected through a set of hashtags was carried out to identify thematic clusters to understand features and meanings given to these expressions,

along with their ways of using in the various situations and contexts. The main results show different meanings of the term, in the negative sense as a limitation of freedom of speech, and in a positive sense as the exclusion of some terms that may offend some people or groups. In this case, the meaning of a word is relative and depends on the situation and context in which it is used. Furthermore, the recourse in the discourses of cancel culture is only rhetorical; there are no actions of cancellation or boycott of someone or something.

## **Section 6** **Digital Research Practices**

*The practices of social research are extremely diverse. Disciplines, topics, and focus can change radically between one scholar and another although the field of inquiry remains digitally bound. In this section, the authors present approaches, case studies, and applications aimed at exploring the vastness of a field of study that is certainly not circumscribable.*

### **Chapter 40**

Between Moral and Climate Crisis: Interpreting Climate Change Through the Lens of Moral

Panic..... 727

*Maria Laura Ruiu, Northumbria University, UK*

*Massimo Ragnedda, Northumbria University, UK*

This chapter identifies four main themes in the literature on media communication of climate change, which represent an interesting object of analysis for scholars who focus on moral panics' application. The combination of both the processual model and the attributional model to interpret the results of this literature review shows that during its emergence, climate change was polarised between “advocates” and “deniers” of both its existence and anthropogenic causes. This division has progressively shifted towards the consequences of climate change and need for action against it. Two distinct moral panics are identified. One is rooted in sceptical arguments and seems to work “in reverse” by emphasising the “uncertainty” around the phenomenon and its impacts. A second one is triggered by climate change supporters, who emphasise that climate change threatens life on the planet and that the current social practices need regulation and control.

### **Chapter 41**

Digital Methodologies for the Historiography of the History of Europe: Testing Omeka Software

on the “AsE”..... 746

*Alessandro Laruffa, Sapienza University of Rome, Italy*

Within the historiography of history of Europe in the 20th century, it can be observed that the methodologies are mostly structured on archival research and comparative methods. Currently, the digital revolution has enabled the management of large amounts of data, information, and statistics. The history of historiography could consider the innovative methodologies for historical research like the digital humanities. This chapter reports the test of Omeka-S, an open-source content management system (CMS) specifically designed for humanities studies, on the history of European historiography. Omeka has been applied for the functions of digitisation, metadatation, and geolocation in accordance with international standards. The case study is the Association of European Historians (AsE), a network of historians from several European and non-European countries founded in 1983. The use of Omeka-S, in combination with traditional methodologies and network analysis, allows a more in-depth examination

of the AsE's network and its historiographical paradigm.

#### **Chapter 42**

Gender Democratization: A Content Analysis of the Social Media of Two Social Promotion Associations ..... 764  
*Giuseppe Masullo, University of Salerno, Italy*  
*Angela Delli Paoli, University of Salerno, Italy*  
*Sara Tomasiello, University of Salerno, Italy*

Misogyny and gender violence are the result of social and cultural predetermination of gender roles. Indeed, eradicating role prescriptions is a real revolutionary action which implies escaping from male and masculinity hegemony and rethinking male identities. It is therefore crucial to create pathways of democratization of gender that aim to create real paths of equality between genders abandoning the social predetermination of gender roles. This challenge has become the goal of some social promotion associations which try to break down gender-based violence and the stigma attached to it. The chapter aims to investigate how these associations operate to democratize gender through a content analysis of messages posted on their respective Facebook pages. The unit of analysis of the study is constituted by the last 200 posts produced in these two Facebook pages for a total of 400 posts analyzed. Findings identify renewed spaces of masculinity (for example fatherhood) not adhering to the main stereotypes.

#### **Chapter 43**

National Differences and Gender Stereotypes in Days of Empire ..... 788  
*Giuseppe Maiello, University of Finance and Administration, Czech Republic*

Days of Empire is a freemium mobile strategy video game developed and published by the company ONEMT, whose actual headquarters is in Fuzhou Fujian, China. The company specializes in fantasy video games mostly set in the Middle East and full of references to the history and mythology of the Arab and Turkish peoples. The objective is to provide a description of the game and to perform a qualitative analysis of the attitudes of selected players towards the game, their emotional drivers, and the financial commitment many of them undertake to achieve greater success in the game. As many discussions take place in the chat function of the game, the author is interested in stereotypes referencing the players' country of origin, gender stereotypes, and even the sexual harassment to which female players are subjected. Using the emic approach, an insider's perspective will be shown of the ways in which the players of Days of Empire look at the issues of nationalism and gender stereotypes, and the emotional connection between single individuals and a freemium game of this type.

#### **Chapter 44**

Social Identity Seeking and Sharing as a Creative Activity of Art Consumers..... 800  
*Jitka Cirklová, University of Finance and Administration, Czech Republic*

The chapter offers an overview of dynamic processes changing the role and place of museums and art galleries in our societies. After many decades of being static displays of things, they are now changing into places of interaction and communication on a variety of levels. The text is presenting some current patterns of developing a sense of collective belonging and also it is looking at the communication processes between institutions and visitors with a focus on the role of digital technologies and social media in the process of preserving, narrating, and sharing the object of art and beauty. The purpose of this chapter is to provide a framework for further research on digital practice linked with contemporary



social identities and art institutions that are a significant social institution with public value and the ability to link the local cultural heritage global context.

#### **Chapter 45**

Processes of Socialization to Sexuality and Discrimination in the Web Society: An Exploratory Research on Transgender People ..... 820  
*Marianna Coppola, University of Salerno, Italy*

The diffusion of new media, of online communication, and the increasingly evident overlap between online and offline environments generates a specific question for scientific research on how these contents can represent an opportunity for “emancipation” and at the same time new areas in which can experience processes of exclusion, in particular for the LGBT community. In this sense, social media offers transgender people a wide range of tools and applications to create new knowledge, interact with other people, create new meeting opportunities, or trace new relationships and/or new emotional and sexual experiences. This research work aims to investigate the psychological, relational, and social aspects of transgender people who use social media and dating apps as communication spaces and relational environments in order to outline the peculiar aspects of media consumption, regulatory access and processes of stigmatization, and social discriminations by the web.

#### **Chapter 46**

Social Research Methods in Cybersecurity: From Criminology to Industrial Cybersecurity ..... 840  
*Felix Antonio Barrio, University Isabel I de Castilla, Spain*  
*Raquel Poy, University of Leon, Spain*

The application of social research methods in cybersecurity requires a multidisciplinary combination since the security of technologies and communication networks is made up of a set of uses, techniques, and results directly conditioned by the parameters of confidentiality, data availability, integrity, and privacy. However, each of these technological concepts is prepared and subject to conditions of use that involve ethical, sociological, economic, and legal aspects. Firstly, social engineering techniques in cybercrime tend to combine social investigation techniques with computational engineering and telecommunications elements. Secondly, research on cybersecurity phenomena in industrial environments implies the adaptation to the organizational specificity of each sector. In this chapter, the social research topics commonly addressed by leading companies and researchers in cybersecurity at a global level are analyzed from a comparative point of view, extracting a taxonomy of social research on cybersecurity.

#### **Chapter 47**

Composed Cognitive Maps: How Little Things Became Big in Crime Analysis..... 867  
*Daniel Castro Aniyar, Universidad Laica Eloy Alfaro de Manabí, Ecuador*

Composed cognitive maps are a tool based on grounded theory and on Lynch’s urban model of cognitive maps, which allow the transfer of information from ethnographic situations to general patterns, and to the so-called spatial dynamics. In criminological matters, they have been applied in the context of environmental and criminology of place to identify criminal situations, criminal patterns, and spatial dynamics of crime. The latter concept has allowed reliable diagnoses for the design of criminal policies. Their advantages are compared with traditional criminometric methods. It introduces a brief compilation of the existing literature on the subject. In a special way, this chapter shows how composed cognitive maps allowed the measurement of drug trafficking networks, police intelligence, and, above all, crime

reduction.

**Chapter 48**

Gender and Sexual Minority Research in the Digital Society ..... 885  
*Salvatore Monaco, Free University of Bozen, Italy*

The chapter aims to deepen the theme of the participation of gender and sexual minorities in social research, with a specific focus on the new possibilities offered by the digital society. After defining the concept of “hidden populations” or “hard-to-reach populations,” the contribution focuses on the factors of greatest vulnerability of the LGBT population. Subsequently, the chapter aims to review the literature regarding the barriers to the sampling, recruitment, participation, and involvement of sexual and gender minorities, highlighting some strategies to overcome some of the main barriers, through a plurality of innovative procedures made possible by the so-called digital society.

**Chapter 49**

Secondary Analysis for Digitized Data: Its Utility in Finding and Selecting Indicators of Social Well-Being ..... 898  
*Gennaro Iorio, University of Salerno, Italy*  
*Marco Palmieri, Sapienza University of Rome, Italy*  
*Geraldina Roberti, University of L'Aquila, Italy*

Secondary analysis for quantitative data is a social research method traditionally employed for statistical analysis of administrative data. In the new digital society, this old research method that pre-existed the emergence of the new digital environment has been digitized to carry out its valuable activity in doing science. In this chapter, the secondary analysis for digitized data is illustrated. Thanks to the growing availability of datasets digitized on the web, the scholars of social well-being use the secondary analysis to inquiry this phenomenon through a cross-national perspective. The authors present the empirical study of World Love Index, in which the utility of the secondary analysis in finding and selecting valid indicators of social well-being is experienced.

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