ETHICAL CHALLENGES IN DIGITAL RESEARCH

A guide to discuss ethical issues in digital research

Second edition
Ethical challenges in digital research
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Authors
Line Lisberg Christensen, Research Assistant
Malene Charlotte Larsen, Associate Professor

Layout
Steffen Madsen, DIGHUMLAB
I. Introduction to document

The ever-changing development of digital technologies and digital infrastructure makes it necessary for us as researchers to change approaches to digital research within the humanities. In terms of research ethics, we can no longer use traditional laws and guidelines that only match the non-digital world. In a time where it is necessary to change and re-think our ways of doing research, we bring to you this second version of Ethical Challenges in Digital Research to initiate discussions about ethical research and to help guide you in your digital research. The compound may serve you as a guideline to ethical research, a helpful tool to those in need of inspiration or merely as a list of literature that is relevant to your field, whether that is: big data, surveillance, privacy, games and gamification, ethics in studies with children and adolescents, health research, journalism, ethnographic studies, visual methods, vulnerable groups, web archives, economy, risky business for researchers or one of the many other categories in this collection of ethical digital research.

We initially created this document with the intention of helping scholars reflect and discuss the ethical dimensions of their digital research, whilst providing guidance and insight about how to deal with these issues. We have compiled a list of articles, papers, books, book chapters, guidelines and journals, which we believe can aid researchers and students alike. In this second version, we have added more than 100 new literature results that have been spread across the categories. In addition, we have developed new categories that we believe are reflections of relevant and current fields in the academic world: Economy, Games/Gamification and Criminal/forensic case studies.

We have attempted to remain respectful and vigilant of the intention of each piece of literature, and great effort has been made to understand the intention and direction of the individual researchers. We gladly accept additional literature and proposals and we hope that our extensive work will provide you with ideas, insight and guidance to discuss ethical issues in digital research. Since developing this document, we have also decided to create a search-engine for your convenience. This you can find on DIGHUMLAB’s website, under the tab Learning Resources, or by clicking here.
II. Relevant academic journals and scholars

We have also chosen to provide the readers of this document with a list of journals of relevance when searching for literature within the field of digital ethics. We especially wish to emphasize the newest addition to the Association of Internet Researcher (AoIR) website, namely their Ethical Guidelines 3.0, which you can access here.

- Association of Internet Researchers (AoIR)
- Ethics and Information Technology
- First Monday
- Research Ethics Review
- Information Ethics
- Information, Communication & Ethics in Society
- International Journal of Internet Research Ethics

In addition, we believe that the following authors can be considered central researchers within the field of digital ethics:

- Amanda Lagerkvist
- Anja Bechmann
- Annette Markham
- Charles Ess
- Christian Fuchs
- Elaine Doyle
- Elizabeth A. Buchanan
- Helen Nissenbaum
- Joseph Migga Kizza
- Katharina E. Kinder-Kurlanda
- Katrin Weller
- Michael Zimmer
- Pål Aarsand
- Stine Lomborg

Naturally, other journals may also be relevant, whilst other researchers and authors are relevant as well. These lists only represent a small number of interesting and inspiring authors, researchers and journals.
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WHAT IS “DIGITAL ETHICS”?
1. What is “digital ethics”?

Digital ethics has become a field of its own. When dealing with digital data we often find ourselves dealing with ethics from a distance: our connection with participants/subjects is often none-existent, because the participants are on the other side of the computer. To act “ethically” will become inherently more challenging, because we need to rethink how to treat our participants when they are no longer in front of us. In the development of this second version of Ethical Challenges in Digital Research, we have revisited the category and added even more relevant literature in which digital ethics is practiced or researched. While literature from authors such as Charles Ess (2014), Annette Markham (2015) and Christian Fuchs (2017) still reside in the category, we also welcome Eoghan Casey (2018) and Jeffrey T. Hancock (2019) to the category “What is Digital Ethics?”


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BIG DATA
2. Big data

The stream of data available online indeed qualifies as “BIG”: social media alone can provide us with countless amounts of both qualitative and quantitative data of movement, likes, shares, comments, posts and much more. Authors such as Michael Zimmer (2018), Annette Markham (2017), Dirk Helbing (2018), Christian Fuchs (2017), Katrin Weller (2015) and many other researchers have researched what it means to collect and process Big Data from online platforms and digital technologies.


CASE STUDIES
3. Case studies

This category contains research with focus on specific topics, such as countries and their developments (Fayoyin, 2017; Assay, 2017), Foucault’s “Governmentality” (Elichirigoity, 2019), sexual cultures (Allen, 2009), fandom (Bennett, et al., 2016), piracy (Carey, 2012), branding feminism (Bandonis & Booth, 2016), youth suicide (Eskisabel-Azpiazu, et. al. 2017) and much more. Dive into the literature in this category to learn more about previous case studies on digital research.


Ethical challenges in digital research


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CHALLENGES
4. Challenges

Specific ethical challenges that researchers have encountered in their digital research is of focus in this category. These challenges include the methodological challenges of collecting Twitter data (Ahmed, et. al., 2017), challenges in developing transdisciplinary strategies (Casey et. al., 2018), children’s “digital” rights (Third, et. al., 2019), overcoming the legal challenges of news reporting (Bishop, 2017), and much more. Use our online search engine to search across the categories and find the connections you need, by clicking here.


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CRIMINAL/FORENSIC CASE STUDIES
5. Criminal/forensic case studies

The past year has offered new possibilities in the terms of criminal prosecution and crime tracking, mostly thanks to social media and the users who post online or criminals who leave traces online. This category, formerly called Criminal case studies, now embraces research with focus on forensics and the use of social media to prosecute criminals. Researchers specifically focus on the complex question of whether it is ethically correct to collect data from online sources – and if criminals are subject to other rules than non-criminals. At the same time the category still focuses on criminal cases, such as what the implications are of posting mug shots online (Grabowski & Yeng, 2012) and sharing intimate content (Oravec, 2012).


CONSENT
6. Consent

One of the most debated questions in the masses of academic literature is whether the ethical guidelines available to researchers is outdated or not, and if we can indeed transfer the guidelines onto digital data collections as well. Informed consent often turns out to be one of the big questions when collecting data online, especially how and when to collect informed consent from users of social media, e.g. Twitter, Tinder or Facebook. Casey Fiesler and Nicholas Profores (2018) investigated Twitter-users’ perception of their tweets being used in research, and a majority of the participants in the research felt that researchers should not be able to use tweets without having gained consent from the “tweeter”. Another example of researchers focusing on consent is Elisabeth Staksrud, who has provided us with the article Top ten types of informed consent your supervisor never told you about (2019). In this article, she shares her recollections of collecting informed consent in various scenarios by categorizing them in types, such as: “No. 10 – the “we are too cool for this” consent” and “No. 2 – the “unicorn” consent”.


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7. Economy

One of the newest additions to the categories in this collection of ethical research is Economy. Past years have proven that we are becoming even more digitalized than ever, which can also be said for our economy. As our economy becomes digitalized, we need to ask ourselves what ethical challenges may arise, not only in a research perspective but also in our societies. Authors Guryanova, Korotaeva and Chedzhemov (2018) argue, that our society will undergo a massive change if we allow everything to become digitalized, but especially the economy can have ethical challenges: a reduction of jobs, moral norms may change, our boundaries of confidentiality may be altered, rising inequality in wages and much more (Guryanova, et. al., 2018). Learn more in this category about authors that have investigated the ethical complications that may arise from the digitalization of our society.


8. Educational studies

Virtual classrooms are becoming increasingly popular and sought after, due to their accessibility and versatile nature, which also makes it an interesting field of research. Researchers in this category have found that digital realms make it possible to develop simulations to help teach (Falconer, 2015) and survey the educator and educated (Anthony & Thomas, 2016). Other researchers have focused on teaching in higher education (Gachago & Sykes, 2017) and what ethical implications occur in digital based learning (Kergel, 2017).


ETHICS IN JOURNALISM
9. Ethics in Journalism

Many traditional fields of employment are suffering because of the explosion of social media and the digital technologies now available. Journalism is no exception: now we can all become authors, or investigative journalists, simply by adding a text on Wikipedia. Though there is a humongous difference between gaining your journalism-diploma and being a Wikipedia-editor or fulltime blogger, these differences may not be visible to the public. The literature in this category focuses on journalism, its development over the past decade, how the trade has adapted to technological changes and what it means to share the title “journalist” with the public.


ETHICS IN POLITICS AND LEGISLATION
10. Ethics in politics and legislation

How do we protect others and ourselves in a world where the digital realm is much vaster than our physical world? Can we simply “transfer” our law-system onto the digital world? How do we protect our data and participants? These are but some of the questions asked by the researchers in this category. Anne Lauber-Rönsberg (2017) investigates the fundamental principles of data protection laws in social sciences, whereas Jonathon Hutchinson (2017) has researched responsible social media research when chasing ISIS, while others investigate the ethical challenges of election reporting in Nigeria (Popoola, 2017).


ETHICS IN RELATION TO BUSINESSES AND COMPANIES
11. Ethics in relation to businesses and companies

Cybercrimes are becoming an increasing threat to companies and as a result, companies and organizations now need to rethink how to operate digitally and how to prepare themselves for (almost) inevitable cyberattacks. Nickson menza Karie and Simon Maina Karume (2017) have investigated the digital forensic readiness that organizations develop to ensure “readiness” for potential cyberattacks, and what ethical implications and challenges that may arise when developing such strategies. Other researchers in this category, such as Omer Tene and Jules Polonetsky (2013), have investigated the “creepy” that goes hand in hand with surveillance, social listening, personalized analytics, data-driven marketing and new product launches. This article also gives you an idea of “how to avoid the creep” (Tene & Polonetsky, 2013, pp.82-99).


ETHICS IN RELATION TO CHILDREN AND ADOLESCENTS
12. Ethics in relation to children and adolescents

Researchers in this category have researched a multitude of ways to obtain data using children and adolescents. Some investigate the ethical implications of collecting data from children and how to ensure their collaboration (Barker & Weller, 2003) while others focus on which challenges researchers can encounter (Aarsand, 2016). Amaia Eskisabel-Azpiazu and her co-authors investigate a specific case in which an 18-year-old student committed suicide after live-tweeting for six hours about the abuse she had been suffering (Eskisabel-Azpiazu et. al., 2017). The good, the bad, the exciting and the sad: this category contains all forms of literature about how to use data derived from children and adolescents, how they are affected by social media, their use of social media and technology, and much more. Pål Aarsand (2010/2016), Charles Ess (2014), Jette Kofoed & Dorthe Staunæs (2015), and Louise Yung Nielsen and Malene Charlotte Larsen (2018) are examples of researchers who have studied how to ethically research with children and adolescents.


ETHICS IN SOCIAL RELATIONS
13. Ethics in social relations

Being social can mean many things – online communities now enable us to make new relationships across borders and social media keeps us in touch with friends, relatives, colleagues and potential employers. We can portray ourselves how we see fit and our relationships can be whatever we want them to be. Researchers in this category have researched what it means to be social in a digital age and what ethical implications may arise when collecting data digitally. The areas include digital classroom surveillance (Anthony & Thomas, 2016), location-aware social networks (Condie, et. al., (2017), being tagged on social media (Frosh, 2018), virtual strangers (Introna, 2019), and many more interesting fields.


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14. Ethnographic studies

When researching social phenomena online, researchers have resorted to anthropological methods for data collection, such as observation (Puurveen et al., 2016), participatory studies (Nansen, et al., 2016), visual anthropology (Aarsand & Forsberg, 2010) and field research (Lohmeier, 2014), also known as ethnography. Ethnography has proven to be effective when investigating groups, cultures and societies because of its ability to focus in depth on specific groups of people. Ethnographers often use the method of field observation, to gain an in-depth perception of the group in focus, though the literature within this category enlightens several aspects of ethnography. As an example, researchers such as Natalia Grincheva (2017) have sought out ethnographic methods to investigate the behavior of online museum visitors. An increasing number of museums have entered the digital world with new and exciting means of giving their visitor an extraordinary experience with historical artifacts through interactive digital galleries, virtual three-dimensional museum simulators, blogs, etc. (Grincheva, 2017). Researchers in this category both discuss and use ethnography as a method for data collection.


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FABRICATION
15. Fabrication

“You don’t look like your profile picture”. Fabrication comes in many shapes and sizes: we can portray ourselves however we desire through social media, researchers can “adapt” their data to better fit their ideas, hackers can make it look like we did misdeeds online, we can even make it look like the president of the United States is a democrat, using Deep Fake face-swaps. When Gerardo Ramirez and Lyssa Palu-ay (2015) state, that “You don’t look like your profile picture”, they draw on the idea that universities tend to brand themselves in a certain way, to look desirable to the rest of the world, much like social media users do when constructing their online personas. Other researchers, such as Annette Markham (2012) believe that researchers tend to “transfigure” data, which can expose our participants. Literature in this category is focused on fabrication – in whatever shape or size it may occur.


16 GAMES/GAMIFICATION
16. Games/Gamification

The latest addition to this collection of literature is Games and Gamification. This category is relevant and important because of the explosion of e-sports and new opportunities that have arisen within the fields of Virtual Reality and Augmented Reality, while media from around the world has started to focus more on the world championships of major games such as Counterstrike. Authors such as José Zarandona, Adam Chapman and Darshana Jayemanne (2018) have chosen to focus on how videogame developers often use historical and cultural sites, such as the National and University Library in Sarajevo, as fields for videogames. The authors investigate the ethical implications of using locations that have historical meaning and the national heritage in games. Dig into the category to learn more about the ethical implications of games and gamification.


GUIDELINES
17. Guidelines

Understanding how to navigate in the extensive landscape of data-collection methods and digital ethics can be troublesome and almost incomprehensible. A list of researchers seeks to unveil how to, ethically, go about researching in the digital world by demonstrating how their own research proceeded. Literature in this category, such as the newest Ethical Guidelines by the Association of Internet Researchers (AoIR), can function as a how-to guide in doing digital research.


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18. Health research

Digital health gives us new opportunities as well as new challenges. Latest digital health aids such as sport watches, pulse watches, smartwatches and other forms of watches that enable you to view and track yourself may provide us with unique insight into our bodies and ourselves, but it comes at a cost. Our personal, bodily data becomes digitalized and thereby vulnerable to cyberattacks or other privacy issues, such as companies collecting our data without us knowing. Researcher Nathan Cortez (2018) argues that despite the development of new technologies in digital health, we still only awkwardly adapt current laws and regulations to fit the current stage of digital health. If our laws are not updated to protect our state and federal consumers and data privacy and security, we could potentially be facing major ethical issues.


MIXED, NICE STUFF
19. Mixed, nice stuff

Though we believe that our categorization of the literature can provide you with a sufficient overview and potentially guide you in your literature quest, we have also encountered literature that exceeds the categories we have developed. The category is no less relevant to digital ethics, and nor is the literature. This category represents all the “mixed, nice stuff” that we were unable to categorize.


Markham, A. N. (2018). *Taking the methods classroom to the streets: Using reflexive qualitative methods to find the better questions for building data literacy*. Qualitative Inquiry.


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ORIGINAL, INNOVATIVE AND CHANGING METHODS
20. Original, innovative and changing of methods

The original, innovative and changing of methods-category contains literature that focuses on new ways of using methodologies, new theories or new philosophical considerations. This also means that research that focuses on new and/or uprising technologies, cultural phenomena, social developments, etc., reside within this category. In this category, you will find researchers such as Justin Clemens and Adam Nash (2018), Jérôme Béranger (2018) and Charles Ess (2015), and many others.


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Markham, A. N. (2018). *Taking the methods classroom to the streets: Using reflexive qualitative methods to find the better questions for building data literacy*. Qualitative Inquiry.


PARTICIPATORY METHODS
21. Participatory methods

Participatory surveillance, participatory methods, participant-produced archives, participating children, online participation, participant anonymity and observation: we can use our participants for many things, and as a result, there are many challenges to consider. The researchers in this category all focus on how to collect data using participatory methods and how meet the ethical challenges that they encounter. Like many of the other categories, this too is many faceted. Since participatory methods involves the collection of data using human beings, we need to be vigilant of our behavior and our data treatment.


Bolt, B. (2016). Whither the aesthetic alibi: ethics and the challenge of art as research in the academy. In Warr, D., Guillemin, M., Cox, S. & Waycott, J. (Eds.) (2016). Ethics and


Jung, H. (2016). *Fuzzy boundaries when using “mental mapping” methods to trade the experiences of immigrant women in South Korea*. In Warr, D., Guillemin, M., Cox, S. &


PRIVACY
22. Privacy

More than ever, we need to be vigilant when ensuring the privacy of our research participants. However, this is becoming increasingly difficult, which researchers like Christian Fuchs (2018) experienced when doing qualitative online research, and collecting data from White supremacists. The question of whether or not to collect informed consent is risen and discussed, with several considerations in mind – to ensure the privacy of the white supremacist if necessary and simultaneously ensuring the safety of himself. Privacy is many-faceted, which you can learn much more about in this category.


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RISKY BUSINESS FOR RESEARCHERS
23. Risky business for researchers

Not only do we need to consider our participants when collecting data, we also need to be aware of the ethical implications that we as researchers may encounter when going into the field. When we go about collecting data, we essentially represent our institutions as well as ourselves: our own integrity can become vulnerable and our institutions can receive large fines if we do not follow the law such as General Data Protection Regulation (GDPR). We consider the literature in this category as examples of how research can be risky business for researchers as well as for participants.


SOFTWARE AND ALGORITHMS
24. Software and algorithms

Research in this category focus on the (non-eatable) cookies that follows us everywhere, the algorithms on social media which we may not truly understand, the hackers that know more about us than we would like them to and the ever evolving distrust and questioning of social media and digital technology. However, cookies can help us understand how users “move” across platforms and algorithms are recipes for problem solving. Researchers in this category focus on software and algorithms that are becoming increasingly a part of our lives.


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SURVEILLANCE
25. Surveillance

Surveillance can be both good and bad – we can feel uneasy when surveyed by cameras or even by cookies online, and we can feel safer with the presence of them, knowing that if any harm was to come to us, it would be caught on camera. Researcher Anders Albrechtslund (2018) argue, that understandings of surveillance is often focused on disempowerment and control, whereas social media is a practice based on surveillance, and therefore more empowering than not. Other researchers, such as Sebastian van Baalen (2018), discuss the importance of assessing the risks of digital data collection when our location is no longer private. How researchers have experienced and researched surveillance as an asset, an interruption, and a positive and negative aspect is demonstrated in this category.


THIRD-PARTY TRACKING
26. Third-party tracking

This category highlights the perspectives of freedom and security in a surveillance-society. With the rising of digital forensics, we, and criminals in particular, may need to be even more vigilant of our online travels. Since our google searches and social media likes are no longer private, we may need to consider the positive- and negative effects of our digital use. Research focusing on the challenges and ethical implications of third-party tracking is listed in this category.


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VISUAL METHODS
27. Visual methods

“Visual” can mean many things. In this context, we refer to video- or photo data, such as ethnographic video, snapchat images, virtual simulations, virtual worlds, participant photographs, photovoice, Instagram hashtags using photos, visual communication, YouTube and many other forms of visual methods. Researchers who use visual methods as data collection may encounter problems with anonymization and informed consent, which as an example is discussed by Nicolas Legewie and Anne Nassauer (2018) in their article about video research in the 21st century.


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Digital Methods for Social Science: an interdisciplinary guide to research innovation, pp.105-121. New York: Palgrave Macmillan.


VULNERABLE GROUPS
28. Vulnerable groups

Suicide, homosexuality, secrecy, children, sexting, power exertion, bullies and the bullied, grief, transgender. The internet knows no boundaries: we can share everything online and we can google our way to any answer. Yet, some groups are more vulnerable than others online which means that the researchers need to act accordingly in their data collection endeavor. Researchers Ben Light, Peta Mitchell and Patrik Wikström (2018) reflect on their collection of data generated via an app specifically developed to facilitate public sex among men who have sex with men. In their study they argue, that ethical considerations are especially important in their field of research, where harassment, imprisonment, physical harm and death may occur. This category is dedicated to all those vulnerable groups that we may encounter when collecting data on digital platforms.


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WEB ARCHIVES
29. Web archives

The past few years have given us new means of storing information online, which can be beneficial in many ways. History can be preserved digitally, texts and literature is being increasingly uploaded to online databases and our data can be stored online, without taking up space in our offices. Authors such as Stine Lomborg (2018) asks, what the nature of our data is: leaving texts online, whether it is a Facebook post, a tweet on Twitter or an edited Wikipedia text, can be “a communicative trace or extension of the person” (Lomborg, 2018, p.101). According to Lomborg, this means that we should keep in mind that we are dealing with human beings and not simply texts. Another researcher in this field is Niels Brügger, who has researched what it means when national libraries create web archives in a world where the “web” is messy and unstructured, and often only maintained by individuals or organizations who may knowingly or unknowingly delete elements that we hoped would ‘always be there, online, for us to find’. This category provides you with examples of research made in the field of webarchives.


