Ethical challenges in digital research
- a guide to discuss ethical issues in digital research

Developed by Digetik at Aalborg University as part of DigHumLab Denmark

Line Lisberg Christensen, Research Assistant
Malene Charlotte Larsen, Associate Professor
Sanne Tarp Wind, Student Assistant

Aalborg University, October 2018.
Introduction to document
Whether we research tweets, posts and pictures from social media (Highfield & Leaver, 2015; Stroud, 2016; Stirling, 2016), consider the context when conducting research with children (Aarsand, 2016; Ess, 2014; Khoja, 2016; Staunæs & Kofoed, 2015), ask existentialist questions about programs vs. people (Lunceford, 2016) or carry out research with the aid of ecofeminist methodology (Romberger, 2017), questions of research ethics occur. Research ethics should be at the center of attention for researchers dealing with human beings, their communication, interactivity, interactions, or the like. When dealing with digital research, we often experience ethical challenges differently than when we conduct research solely connected to the “offline” world. With the ability to obtain big data (Zimmer, 2016; Zimmer & Proferes, 2014) and using web archives as data sources (Brügger, 2017; Comstock, 2015), questions of consent, privacy, public, harm, and so on, no longer offer clear answers. This calls for adaptability and adoption of new means of collecting and processing data.

This document is created 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.

When creating this document, 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.

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.

- Ethics and Information Technology.
- First Monday.
- Information Ethics.
- Research Ethics Review.
- Information, Communication & Ethics in Society.
- International Journal of Internet Research Ethics.
- Research Ethics.

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

- Aarsand, Pål - https://www.ntnu.edu/employees/pal.aarsand
- Ess, Charles - https://www.hf.uio.no/imk/english/people/aca/charlees/index.html
- Fuchs, Christian - http://fuchs.uti.at/papers/
- Markham, Annette - https://annettemarkham.com/research/
- Nissenbaum, Helen - https://nissenbaum.tech.cornell.edu/main_cv.html#pub
- Weller, Katrin - https://katrinweller.net/publications/
- Zimmer, Michael - https://www.michaelzimmer.org/category/academic/publications/

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.
## Content

- What is “digital ethics”? ................................................... 5
- Ethnographic studies ..................................................... 8
- Webarchives .................................................................. 13
- Visual methods ............................................................... 15
- Ethics in relation to businesses and companies .................. 23
- Ethics in relation to children and adolescents ..................... 24
- Privacy ........................................................................... 29
- Consent ........................................................................... 40
- Fabrication ..................................................................... 49
- Challenges ..................................................................... 51
- Big data .......................................................................... 67
- Guidelines ....................................................................... 73
- Ethics in social relations .................................................... 80
- Ethics in Journalism ........................................................ 88
- Ethics in politics and legislation ......................................... 90
- Original, innovative and changing of methods ................... 92
- Participatory methods .................................................... 98
- Vulnerable groups .......................................................... 104
- Case studies .................................................................. 109
- Criminal case studies ...................................................... 121
- Health research ............................................................. 122
- Educational studies ........................................................ 124
- Surveillance .................................................................... 125
- Third-party tracking ........................................................ 126
- Software & algorithms .................................................... 127
- Risky business for researchers ......................................... 129
- Mixed, nice stuff ............................................................ 131
What is “digital ethics”?

Digital data collection often entails a distance between researcher and participant/subject, which naturally complicates the relationship between the two. Whether the digital consists of devices, social media platforms or other forms of digital remedies, ethics are relevant to consider – not only for the protection of the participants, but for the protection of researchers and institutions as well. In this first category in the constellation of literature regarding Ethical considerations in digital research, researchers such as Charles Ess (2014), Annette Markham (2015) and Christian Fuchs (2017) define, describe or outline what constitutes as digital ethics.


**Ethnographic studies**

With the explosion and ever-expanding social media, new means of connecting socially have risen. 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 all aspects of ethnography. This category thereby exemplifies how researchers have dealt with the ethical challenges that arise when utilizing digital ethnography.


The digital age offers many new tools and means of obtaining data and one such tool is webarchives. Data can be archived or collected through archives, which also means that personal data can be stored and reused through a period of time- or indefinitely. This is beneficial to researchers and students who seek data already obtained, but the data originates from people who may not have intended to let their data be used without restriction. Yet, webarchives can also function as a means of collecting and protecting history: as an example, Mark Turin researched how anthropologists and linguists attempt to preserve and protect their data with technological archiving (Turin, 2011). Another example is Niels Brügger who researches the importance of preserving and collecting our cultural heritage for future generations to study and view (Brügger, 2014). If you are interested in webarchives and the digital ethics that you may encounter, this category provides you with insight into how other researchers have dealt with challenges of an ethical nature.


Visual methods

Visual methods let you “fix” observations and situations otherwise illusive to researchers, which has great value. Being able to return to actual events with the aid of photography, video recordings, photovoice, videogames and images makes it possible to research in depth, what has occurred. One example is Pål Aarsand and Lucas Forsberg (2010) who investigated the challenges of children’s privacy when video recording them. However, visual methods also have its potential challenges. Seeing “too much” of a participant’s life through video recorded data can be challenging and even unnerving to researchers, which Mok et al. experienced in their study about wearable cameras (Mok, et al., 2015). This category is relevant to you, who is interested in learning about digital, visual methods and the ethical challenges one may encounter.


Ethics in relation to businesses and companies

This category only holds a small amount of literature, but perhaps this can cause an enlarged interest in the field of ethics in relation to businesses/companies by asking questions such as: How do companies use marked-data? What are the challenges that arise when working with customer data? Is it ethically responsible to use private data in corporate contexts?


Ethics in relation to children and adolescents

Including children as participants in studies can be problematic, if they are unaware of what they are participating in. It can also be difficult to communicate what the intention of the study is, which causes questions of consent: if the children are unaware, how can we gain consent? Pål Aarsand (2010/2016), Charles Ess (2014), Jette Kofoed & Dorthe Staunæs (2015) and Malene Charlotte Larsen and Louise Glud (2013) are examples of researchers who have studied how to ethically research with children and adolescents and are but four examples of research-studies in this category.


Privacy

Covering our phones while checking Snapchat, going through our private photo albums, reading confidential emails or playing a game of Candy Crush: privacy can be many things, but we all have something we wish to keep private. The line between what is private and what is public is becoming increasingly blurred, and not all that used to be private, is anymore. Snapchat can save your photos, while private photo albums are uploaded to the “cloud” and thereby your album becomes hackable, just like email accounts, and Candy Crush has your payment information stored. We also see issues of privacy when researchers use personal data: an example is, participating in research with video recording as a means of obtaining data can create undesired insights into our personal lives, if not cautious. This is evident in the study my Mok, et al. (2015), who experienced that “More data is recorded than required and faces and places can be easily identified” (Mok, et al., 2015 pp.3). Another example is that of Michael Zimmer who, in 2010, researched the ethics of public data being shared and potentially harming those whose data is shared. He exemplifies with a situation from 2008, in which a list of US college attendants’ Facebook-profile data was released, and, despite attempts to hide their identities, had their anonymity compromised (Zimmer, 2012). Thereby, this category contains many different forms of literature in which privacy is discussed or researched.


Carpenter, K. J. & Dittrich, D. (2012). Bridging the distance: Removing the technology buffer and seeking consistent ethical analysis in computer security research. In Heider,


Consent

Ensuring that participants accept the use of their data is an important element when collecting data. Not only can researchers experience prosecution if participants feel misused, but the integrity of researcher and institution are at line as well. Most of all, is the protection of the participant important, because their private and personal data can be used in unwanted ways. When using data from participants, we enter an agreement with them - an agreement sometimes unspoken, but nevertheless important - if we are allowed to use their data, we will, in exchange, ensure the safety of that data. But, in the digital world we may need to rethink how we ensure informed consent as well as collect consent from our participants. Anja Bechmann gives an example of, how we are moving into an era of non-informed consent, affected deeply by the “social incentives and group dynamics” (Bechmann, 2014). Researchers in this category provide their encounters with ethical questions regarding consent in different variations.


Fabrication

On social media, we have the opportunity to enhance, or fabricate, the “better” version of ourselves, whether this is presented with flawless skin, perfect hair or body. Some even create fake accounts of their favorite actors or authors, thus developing fabricated insights into the lives of whom their fandom focuses on. Yet, fabrication can occur on several levels, whether it is dealing with data which is misused or misinterpreted: dealing with data can cause ethical questions about the representation of the participant’s data and person, as well as the integrity of the researcher. Researchers, such as Annette Markham, use the term fabrication as a means of protecting those participating in studies: altering or “transfiguration of original data” (Markham, 2012) is a key element in the article Fabrication as ethical practice (2012). The following category enlightens how other researchers have dealt with problems of fabrication.


Challenges

Challenges of an ethical manner can occur in many variations. This category contains examples of how researchers have dealt with challenges of privacy, consent and data collection in all forms. Thereby, this category can give you an extensive overview of other studies and their endeavours when conducting case-studies, culture-studies, participatory studies, etc. To exemplify literature within this category seems almost redundant, because almost all literature in this document is relevant to the category of challenges.


Big data

Big Data. Massive streams of information about users of platforms, communities, cultures, sexual orientations, Google searches, clicks, likes, and much more. Big data can provide us with insight into societal tendencies, and has been researched by Michael Zimmer, Annette Markham, Christian Fuchs, Katrin Weller, and a long list of other researchers, who offer their insights into what it means to deal with big data.


Light, B., Mitchell, P. & Wikström, P. (2018). *Big data, method and the ethics of location: a case study of a hookup app for men who have sex with men.* In Markham, A. N.,


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.


Ethics in social relations

Social media provide us with new means of “being social”: we can communicate with relatives that reside in different states or countries, while our online games create a means for communicating with people we do not know. We have the opportunity to portray ourselves in whatever way we desire, and we can use our profiles to do so. Twitter, Facebook, online games and communities are the focus of this category, in which we are provided with perspectives of how to ethically go about collecting, analyzing and interpreting data form online sources.


Ethics in Journalism

Accompanying the explosion of social media is the opportunity to become a self-proclaimed journalist, which is evident not only in the case of blogging and article-writing, but also through Wikipedia. Now, we can all identify ourselves as journalists, experts and health-gurus, and, without credibility, present ourselves as “valid”: not all opinions and statements are, however, valid or based on facts. Researchers have, as a result, asked what effect citizen journalism has on society, and if it is ethically responsible for citizens to function as journalists.


Ethics in politics and legislation

In his campaign against Trump and Clinton, politician Bernie Sanders was supported financially by companies such as Apple, Microsoft and Amazon. The United States’ president, Donald Trump, financed his own campaign with massive non-financial support from the National Rifle Association (NRA), due to Trump’s desire to preserve the rights to carry firearms. But how do residents in the States react online to the statements provided by Trump during his campaign? Though the literature in this category presents issues from different countries, such as Nigeria, Uganda and Namibia, ethical considerations in politics are of great focus to scholars around the world. In addition, the category also contains literature regarding the hacktivist group known as Anonymous, who often interfere with politics, elections and the corruption and censor of online information (Gekker, 2012).


Original, innovative and changing of methods

Alongside of the digital world and the changes we experience in our social, interactive, communicative and societal contexts, there is an eminent need to change the way we investigate these phenomena. Methods from the 90s may no longer be sufficient when researching social behavior, because we have moved further into the digital world. Researchers have, as a result, attempted to develop or change existing methodologies and approaches to research social contexts. Studies about the original, innovative and changing of methods are represented in this category, to provide researchers and students alike with insights into how others have conducted studies that may be considered new, innovative or original. To exemplify, Annette Markham recently published an article focusing on an “ongoing effort to train citizens to become social researchers themselves” (Markham, 2018), in which citizens “explore and develop their own data literacy” (Markham, 2018). This we consider original because of Markham’s investigation of The Museum of Random Memory - a performative arts-based public intervention, which is intended to open a reflection about digital media use.


Media and Activism, pp.385-394. Abingdon: Routledge. Retrieved from:


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

Participatory methods of collecting data can offer intimate insight into the lives of our participants dealing with particular topics, whether it being sexual cultures, online behavior, feminism, art, storytelling or pedagogy. However, when dealing with participants, ethical questions may arise. This category contains participatory studies to guide and inspire researchers looking to research with the aid of participants.


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


Vulnerable groups

When dealing with vulnerable groups of participants, we need to ask ourselves case-specific questions about ethics which may not be relevant in other contexts. How we collect data regarding coma-patients, children, people suffering from mental illness, trauma or dementia needs attention because these can be characterized as vulnerable participants that may, or may not, be able to express their own desires and wishes. When dealing with vulnerable participants we often rely on next-of-kin or whoever has custody of the participant, which causes questions of consent, privacy and participant integrity. This category consists of literature in which researchers attempt to, and research with vulnerable participants.


Case studies

Looking for specific case-studies to understand how to design a study can be helpful if you are overwhelmed or simply in need of ideas and inspiration. This category contains literature regarding all forms of case studies: sexual cultures (Allen, 2009), Africa’s traditional knowledge (Assay, 2017), branding feminism (Bandonis & Booth, 2016), fandom (Bennett, et al., 2016), piracy (Carey, 2012), the harm of video games (Rogers, 2016) and gamification (Sicart, 2012).


Edmonds, F., Evans, M., McQuire, S. & Chenhall, R. (2016). **Ethical considerations when using visual methods in digital storytelling with aboriginal young people in Southeast Australia.** In Warr, D., Guillemin, M., Cox, S. & Waycott, J. (Eds.) (2016). Ethics and


Light, B., Mitchell, P. & Wikström, P. (2018). **Big data, method and the ethics of location: a case study of a hookup app for men who have sex with men.** In Markham, A. N.,


Criminal case studies

Is it ethical to disseminate mug shots on social media or to track transgender people, though some might physically harm them? Are private photos ever private? When is it permissible to mentally harm others? Researchers have been asking themselves difficult questions such as these in studies about crime in literature such as: To post or not to post: philosophical and ethical considerations for mug shot websites (Grabowski, M. & Yeng, S., 2012), The ethics of sexting: issues involving consent and the production of intimate content (Oravec, J. A., 2012) and Permissible piracy? (Carey, B., 2012).


Health research

This category holds literature in which the researchers encountered ethical issues and/or challenges in health-related contexts. When using the term health, we refer to sports-studies such as that of Culver & Mirer (2016), public health research by Gubrium, et al. (2014) and nursing research studies by Hammer (2017). Health data is of increasing interest not only to businesses developing sports gear and tracking-devices such as FitBit and apps like Endomondo, but also for researchers who question the use of private health data. Devices like FitBit may hold the opportunity to track when and where participants reside daily, which is considered surveillance. Surveillance offer both positive and negative affect: in case of emergency, it is relevant to know exactly where a person is located, but in the case of, e.g., adultery, some may find it less positive for their partners to know their whereabouts.


Educational studies

Teaching and collecting data in educational settings will inevitably hold ethical questions: if dealing with visual recording of children in education as Caroline Lodge (2009), questions of power relations and consent may affect the children participating in the study. Yet, not only children in educational settings require ethical consideration. Paul Prinsloo and Sharon Slade (2017) present their study about collecting and utilizing student data in higher education, and how to appropriately, and effectively, use the data to increase the efficacy of education and learning. This category thereby presents literature about educational- and learning research.


Surveillance

With social media and self-tracking devices, an increasing number of researchers have begun researching within the field of surveillance and the ethical implications therein. Surveillance, as with third-party tracking, offer both positive and negative aspects for users and researchers to consider. Anders Albrechtslund (2008) uses the term participatory surveillance in which he states, that surveillance should not only be considered disempowering but rather empowering to those choosing to be surveyed as participants. This example describes an interesting and new way of perceiving the term surveillance.


Third-party tracking

Much like the category of health in which literature about how one’s private whereabouts can be tracked via devices such as FitBit and Endomondo-apps, the category of third-party tracking can offer both positive and negative affect to those being tracked. The whereabouts and interests of those being tracked may not be favorable for others to know, which is evident in the study by Andre Oboler et al. (2012), in which the dangers of big data are discussed. This category enlightens the challenges of third-party tracking in the perspectives of security, freedom, privacy and surveillance.


Software & algorithms

Collecting data online using software causes a threat to the owners of the data: are the users of social media aware that their data is being collected and used in research? Automated data extraction using software is questioned in literature such as that of Sophia Alim (2014) and Anja Bechmann & Peter Bjerregaard Vahlstrup (2015). This category also contains literature regarding the hacktivism group known as Anonymous who, since 2003, have attempted to regain the public’s freedom of speech, by highlighting the misuse and, according to them, unnecessary censure of online materials.


Risky business for researchers
Ethical challenges and issues not only affect participants or stakeholders when doing digital research, but researchers as well. In some cases, when dealing with particularly vulnerable or dangerous research areas, one may even encounter safety-issues that can affect more than reputation and institution. This category holds literature that considers the risks of conducting digital research (Sparks, et al. 2016), collaborative research in interdisciplinary fields (Burnett, et al. 2017), citation analysis (Reilly & Eyman, 2007) and other issues that may be relevant to the researcher.


Mixed, nice stuff

The last category consists of literature that exceeds the categories we have developed. The literature is no less important or interesting and some of the literature you may find in other categories as well. Mixed, nice stuff thereby represents the literature which cannot be defined with one category - though, one might argue that much of the literature above cannot either. However, the literature within this category has, to us, proven to need further categorization.


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.


