

6.1 Introduction

The previous chapters have shown that the digital age creates new opportunities for collecting and analyzing social data. The digital age has also created new ethical challenges. The goal of this chapter is to give you the tools that you need to handle these ethical challenges responsibly.

There is currently uncertainty about the appropriate conduct of some digital-age social research. This uncertainty has led to two related problems, one of which has received much more attention than the other. On the one hand, some researchers have been accused of violating people’s privacy or enrolling participants in unethical experiments. These cases—which I’ll describe in this chapter—have been the subject of extensive debate and discussion. On the other hand, the ethical uncertainty has also had a chilling effect, preventing ethical and important research from happening, a fact that I think is much less appreciated. For example, during the 2014 Ebola outbreak, public health officials wanted information about the mobility of people in the most heavily infected countries in order to help control the outbreak. Mobile phone companies had detailed call records that could have provided some of this information. Yet ethical and legal concerns bogged down researchers’ attempts to analyze the data (Wesolowski et al. 2014; McDonald 2016). If we, as a community, can develop ethical norms and standards that are shared by both researchers and the public—and I think we can do this—then we can harness the capabilities of the digital age in ways that are responsible and beneficial to society.

One barrier to creating these shared standards is that social scientists and data scientists tend to have different approaches to research ethics. For social scientists, thinking about ethics is dominated by Institutional Review Boards (IRBs) and the regulations that they are tasked with enforcing. After all, the only way that most empirical social scientists experience ethical debate is through the bureaucratic process of IRB review. Data scientists, on the other hand, have little systematic experience with research ethics because it is not commonly discussed in computer science and engineering. Neither of these approaches—the *rules-based approach* of social scientists or the *ad hoc approach* of data scientists—is well suited for social research in the digital age. Instead, I believe that we, as a community, will make progress if we adopt a *principles-based approach*. That is, researchers should evaluate their research through existing rules—which I will take as given and assume should be followed—and through more general ethical principles. This principles-based approach helps researchers make reasonable decisions for cases where rules have not yet been written, and it helps researchers communicate their reasoning to each other and the public.

The principles-based approach that I am advocating is not new. It draws on decades of previous thinking, much of which was crystallized in two landmark reports: the Belmont Report and the Menlo Report. As you will see, in some cases the principles-based approach leads to clear, actionable solutions. And, when it does not lead to such solutions, it clarifies the trade-offs involved, which is critical for striking an appropriate balance. Further, the principles-based approach is sufficiently general that it will be helpful no matter where you work (e.g., university, government, NGO, or company).

This chapter has been designed to help a well-meaning individual researcher. How should you think about the ethics of your own work? What can you do to make your own work more ethical? In section 6.2, I’ll describe three digital-age research projects that have generated ethical debate. Then, in section 6.3, I’ll abstract from those specific examples to describe what I think is the fundamental reason for ethical uncertainty: rapidly increasing power for researchers to observe and experiment on people without their consent or even awareness. These capabilities are changing faster than our norms, rules, and laws. Next, in section 6.4, I’ll describe four existing principles that can guide your thinking: Respect for Persons, Beneficence, Justice, and Respect for Law and Public Interest. Then, in section 6.5, I’ll summarize two broad ethical frameworks—consequentialism and deontology—that can help you with one of the deepest challenges that you might face: when is it appropriate for you to use ethically questionable means in order to achieve an ethically appropriate end. These principles and ethical frameworks—summarized in figure 6.1—will enable you to move beyond focusing on what is permitted by existing regulations and increase your ability to communicate your reasoning with other researchers and the public.

With that background, in section 6.6, I will discuss four areas that are particularly challenging for digital age social researchers: informed consent (section 6.6.1), understanding and managing informational risk (section 6.6.2), privacy (section 6.6.3), and making ethical decisions in the face of uncertainty (section 6.6.4). Finally, in section 6.7, I’ll offer three practical tips for working in an area with unsettled ethics. The chapter concludes with a historical appendix, where I briefly summarize the evolution of research ethics oversight in the United States, including discussions of the Tuskegee Syphilis Study, the Belmont Report, the Common Rule, and the Menlo Report.

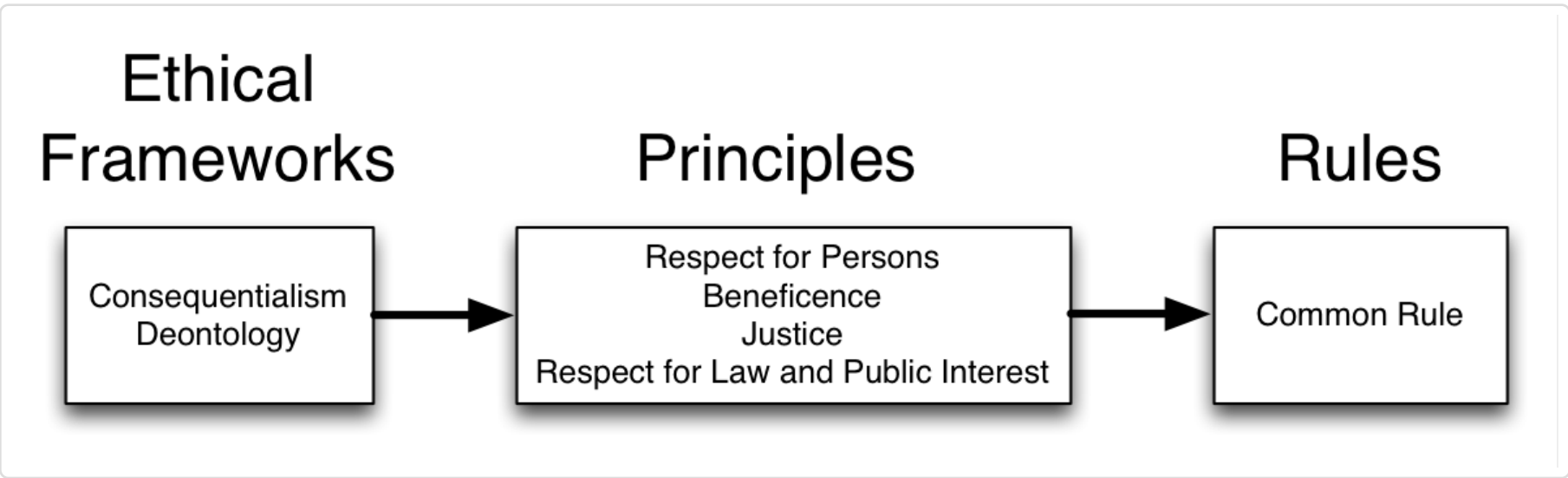


Figure 6.1: The rules governing research are derived from principles that in turn are derived from ethical frameworks. A main argument of this chapter is that researchers should evaluate their research through existing rules—which I will take as given and assume should be followed—and through more general ethical principles. The Common Rule is the set of regulations currently governing most federally funded research in the United States (for more information, see the historical appendix to this chapter). The four principles come from two blue-ribbon panels that were created to provide ethical guidance to researchers: the Belmont Report and the Menlo Report (for more information, see the historical appendix). Finally, consequentialism and deontology are ethical frameworks that have been developed by philosophers for hundreds of years. A quick and crude way to distinguish the two frameworks is that deontologists focus on means and consequentialists focus on ends.

6.2 Three examples

Digital-age social research will involve situations where reasonable, well-meaning people will disagree about ethics.

To keep things concrete, I’ll start with three examples of digital-age studies that have generated ethical controversy. I’ve selected these particular studies for two reasons. First, there are no easy answers about any of them. That is, reasonable, well-meaning people disagree about whether these studies should have happened and what changes might improve them. Second, these studies embody many of the principles, frameworks, and areas of tension that will follow later in the chapter.



6.2.1 Emotional Contagion

700,000 Facebook users were put into an experiment that may have altered their emotions. The participants did not give consent and the study was not subject to meaningful third-party ethical oversight.

For one week in January 2012, approximately 700,000 Facebook users were placed in an experiment to study “emotional contagion,” the extent to which a person’s emotions are impacted by the emotions of the people with whom they interact. I’ve discussed this experiment in chapter 4, but I’ll review it again now. Participants in the emotional contagion experiment were put into four groups: a “negativity-reduced” group, for whom posts with negative words (e.g., sad) were randomly blocked from appearing in the News Feed; a “positivity-reduced” group for whom posts with positive words (e.g., happy) were randomly blocked; and two control groups, one of the positivity-reduced group and one for the negativity-reduced group. The researchers found that people in the positivity-reduced group used slightly fewer positive words and slightly more negative words, relative to the control group. Likewise, they found that people in the negativity-reduced condition used slightly more positive words and slightly fewer negative words. Thus, the researchers found evidence of emotional contagion ([Kramer, Guillory, and Hancock 2014](#)); for a more complete discussion of the design and results of the experiment see chapter 4.

After this paper was published in *Proceedings of the National Academy of Sciences*, there was an enormous outcry from both researchers and the press. Outrage around the paper focused on two main points: (1) participants did not provide any consent beyond the standard Facebook terms of service and (2) the study had not undergone meaningful third-party ethical review ([Grimmelmann 2015](#)). The ethical questions raised in this debate caused the journal to quickly publish a rare “editorial expression of concern” about the ethics and ethical review process for the research ([Verma 2014](#)). In subsequent years, this experiment has continued to be a source of intense debate and disagreement, and the criticism of this experiment may have had the unintended effect of driving this kind of research into the shadows ([Meyer 2014](#)). That is, some have argued that companies have not stopped running these kinds of experiments—they have merely stopped talking about them in public. This debate may have helped spur the creation of an ethical review process for research at Facebook ([Hernandez and Seetharaman 2016](#); [Jackman and Kanerva 2016](#)).

6.2.2 Tastes, Ties, and Time

Researchers scraped students' data from Facebook, merged it with university records, used these merged data for research, and then shared them with other researchers.

Beginning in 2006, each year, a team of professors and research assistants scraped the Facebook profiles of members of the Class of 2009 at a “diverse private college in the Northeastern U.S.” The researchers then merged these data from Facebook, which included information about friendships and cultural tastes, with data from the college, which included information about academic majors and where the students lived on campus. These merged data were a valuable resource, and they were used to create new knowledge about topics such as how social networks form (Wimmer and Lewis 2010) and how social networks and behavior co-evolve (Lewis, Gonzalez, and Kaufman 2012). In addition to using these data for their own work, the Tastes, Ties, and Time researchers made them available to other researchers, after taking some steps to protect the students' privacy (Lewis et al. 2008).

Unfortunately, just days after the data were made available, other researchers deduced that the school in question was Harvard College (Zimmer 2010). The Tastes, Ties, and Time researchers were accused of a “failure to adhere to ethical research standards” (Zimmer 2010) in part because the students had not provided informed consent (all procedures were reviewed and approved by Harvard's IRB and Facebook). In addition to criticism from academics, newspaper articles appeared with headlines such as “Harvard Researchers Accused of Breaching Students' Privacy” (Parry 2011). Ultimately, the dataset was removed from the Internet, and it can no longer be used by other researchers.

6.2.3 Encore

Researchers caused people’s computers to secretly visit websites that were potentially blocked by repressive governments.

In March 2014, Sam Burnett and Nick Feamster launched Encore, a system to provide real-time and global measurements of Internet censorship. To do this, the researchers, who were at Georgia Tech, encouraged website owners to install this small code snippet into the source files of their web pages:

```
<iframe src="//encore.noise.gatech.edu/task.html"
width="0" height="0"
style="display: none"></iframe>
```

If you happen to visit a web page with this code snippet in it, your web browser will try to contact a website that the researchers were monitoring for possible censorship (e.g., the website of a banned political party). Then, your web browser will report back to the researchers about whether it was able to contact the potentially blocked website (figure 6.2). Further, all of this will be invisible unless you check the HTML source file of the web page. Such invisible third-party page requests are actually quite common on the web (Narayanan and Zevenbergen 2015), but they rarely involve explicit attempts to measure censorship.

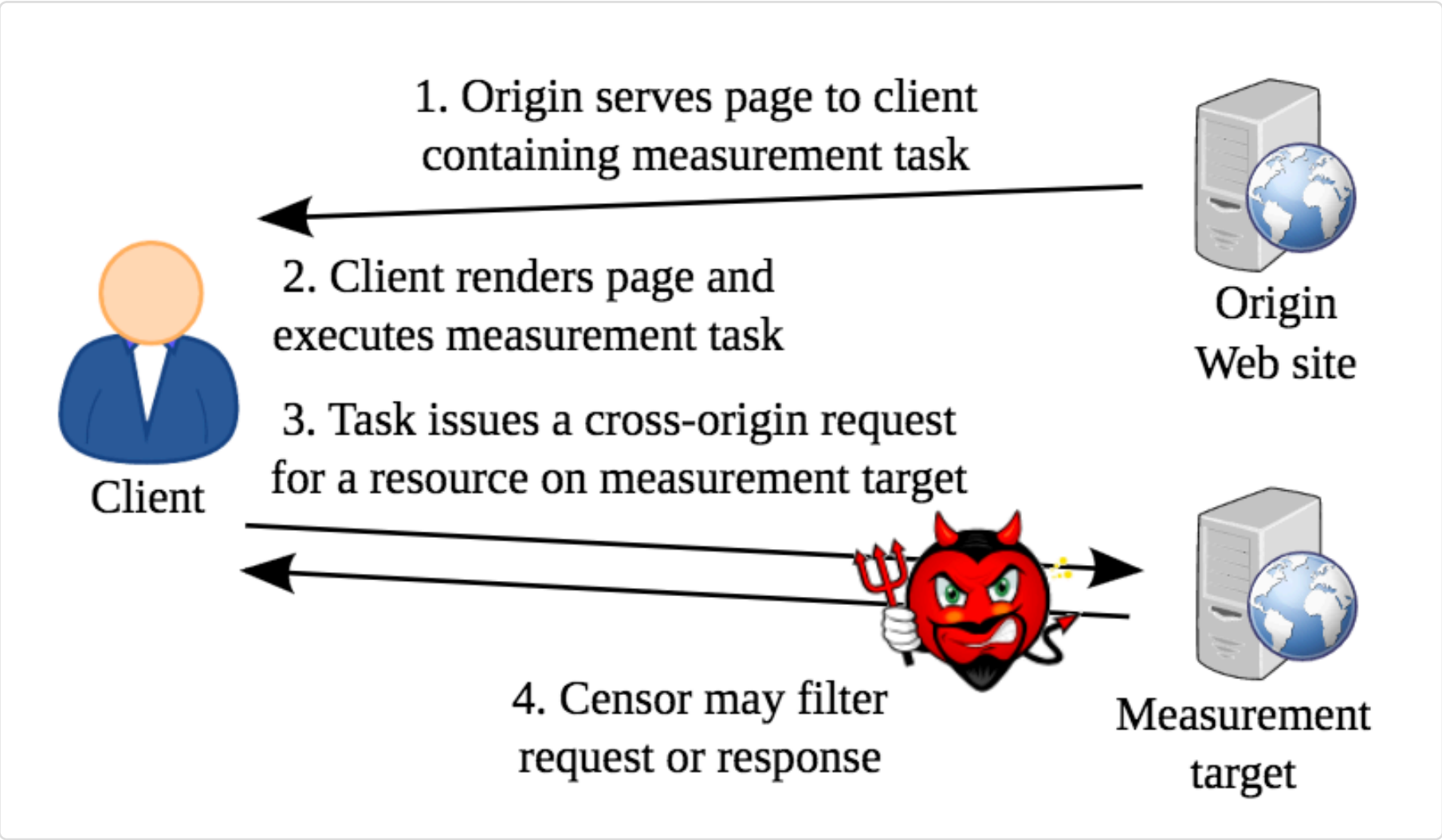


Figure 6.2: Schematic of the research design of Encore (Burnett and Feamster 2015). The origin website has a small code snippet embedded in it (step 1). Your computer renders the web page, which triggers the measurement task (step 2). Your computer attempts to access a measurement target, which could be the website of a banned political group (step 3). A censor, such as a government, may then block your access to the measurement target (step 4). Finally, your computer reports the results of this request to the researchers (not shown in the figure). Reproduced by permission from Burnett and Feamster (2015), figure 1.

This approach to measuring censorship has some very attractive technical properties. If a sufficient number of websites include this simple code snippet, then Encore can provide a real-time, global-scale measure of which websites are censored. Before launching the project, the researchers conferred with their IRB, which declined to review the project because it was not “human subjects research” under the Common Rule (the set of regulations governing most federally funded research in the United States; for more information, see the historical appendix at the end of this chapter).

Soon after Encore was launched, however, Ben Zevenbergen, then a graduate student, contacted to the researchers to raise questions about the ethics of the project. In particular, Zevenbergen was concerned that people in certain countries could be exposed to risk if their computer attempted to visit certain sensitive websites, and these people did not consent to participate in the study. Based on these conversations, the Encore team modified the project to attempt to measure the censorship of only Facebook, Twitter, and YouTube because third-party attempts to access these sites are common during normal web browsing (Narayanan and Zevenbergen 2015).

After collecting data using this modified design, a paper describing the methodology and some results was submitted to SIGCOMM, a prestigious computer science conference. The program committee appreciated the technical contribution of the paper, but expressed concern about the lack of informed consent from participants. Ultimately, the program committee decided to publish the paper, but with a signing statement expressing ethical concerns (Burnett and Feamster 2015). Such a signing statement had never been used before at SIGCOMM, and this case has led to additional debate among computer scientists about the nature of ethics in their research (Narayanan and Zevenbergen 2015; B. Jones and Feamster 2015).

6.4 Four principles

Four principles that can guide researchers facing ethical uncertainty are: Respect for Persons, Beneficence, Justice, and Respect for Law and Public Interest.

The ethical challenges that researchers face in the digital age are somewhat different than those in the past. However, researchers can address these challenges by building on earlier ethical thinking. In particular, I believe that the principles expressed in two reports—the Belmont Report (Belmont Report 1979) and the Menlo Report (Dittrich, Kenneally, and others 2011)—can help researchers reason about the ethical challenges that they face. As I describe in more detail in the historical appendix to this chapter, both of these reports were the results of many years of deliberation by panels of experts with many opportunities for input from a variety of stakeholders.

First, in 1974, in response to ethical failures by researchers—such as the notorious Tuskegee Syphilis Study in which almost 400 hundred African American men were actively deceived by researchers and denied access to safe and effective treatment for almost 40 years (see historical appendix)—the US Congress created a national commission to produce ethical guidelines for research involving human subjects. After four years of meeting at the Belmont Conference Center, the group produced the *Belmont Report*, a slender but powerful document. The Belmont Report is the intellectual basis for the *Common Rule*, the set of regulations governing human subjects research that IRBs are tasked with enforcing (Porter and Koski 2008).

Then, in 2010, in response to the ethical failures of computer security researchers and the difficulty of applying the ideas in the Belmont Report to digital-age research, the US Government—specifically the Department of Homeland Security—created a blue-ribbon commission to produce a guiding ethical framework for research involving information and communication technologies (ICT). The result of this effort was the *Menlo Report* (Dittrich, Kenneally, and others 2011).

Together, the Belmont Report and the Menlo Report offer four principles that can guide ethical deliberations by researchers: *Respect for Persons*, *Beneficence*, *Justice*, and *Respect for Law and Public Interest*. Applying these four principles in practice is not always straightforward, and it can require difficult balancing. The principles, however, help clarify trade-offs, suggest improvements to research designs, and enable researchers to explain their reasoning to each other and the public.

6.4.1 Respect for Persons

Respect for Persons is about treating people as autonomous and honoring their wishes.

The Belmont Report argues that the principle of Respect for Persons consists of two distinct parts: (1) individuals should be treated as autonomous and (2) individuals with diminished autonomy should be entitled to additional protections. Autonomy roughly corresponds to letting people control their own lives. In other words, Respect for Persons suggests that researchers should not do things to people without their consent. Critically, this holds even if the researcher thinks that the thing that is happening is harmless, or even beneficial. Respect for Persons leads to the idea that participants—not researchers—get to decide.

In practice, the principle of Respect for Persons has been interpreted to mean that researchers should, if possible, receive informed consent from participants. The basic idea with informed consent is that participants should be presented with relevant information in a comprehensible format and then should voluntarily agree to participate. Each of these terms has itself been the subject of substantial additional debate and scholarship (Manson and O'Neill 2007), and I'll devote section 6.6.1 to informed consent.

Applying the principle of Respect for Persons to the three examples from the beginning of the chapter highlights areas of concern with each of them. In each case, researchers did things to participants—used their data (Tastes, Ties, or Time), used their computer to perform a measurement task (Encore), or enrolled them in an experiment (Emotional Contagion)—without their consent or awareness. The violation of the principle of Respect for Persons does not automatically make these studies ethically impermissible; Respect for Persons is one of four principles. But thinking about Respect for Persons does suggest some ways in which the studies could be improved ethically. For example, researchers could have obtained some form of consent from participants before the study began or after it ended; I'll return to these options when I discuss informed consent in section 6.6.1.

6.4.2 Beneficence

Beneficence is about understanding and improving the risk/benefit profile of your study, and then deciding if it strikes the right balance.

The Belmont Report argues that the principle of Beneficence is an obligation that researchers have to participants, and that it involves two parts: (1) do not harm and (2) maximize possible benefits and minimize possible harms. The Belmont Report traces the idea of “do not harm” to the Hippocratic tradition in medical ethics, and it can be expressed in a strong form where researchers “should not injure one person regardless of the benefits that might come to others” (Belmont Report 1979). However, the Belmont Report also acknowledges that learning what is beneficial may involve exposing some people to risk. Therefore, the imperative of not doing harm can be in conflict with the imperative to learn, leading researchers to occasionally make difficult decisions about “when it is justifiable to seek certain benefits despite the risks involved, and when the benefits should be foregone because of the risks” (Belmont Report 1979).

In practice, the principle of Beneficence has been interpreted to mean that researchers should undertake two separate processes: a risk/benefit analysis and then a decision about whether the risks and benefits strike an appropriate ethical balance. This first process is largely a technical matter requiring substantive expertise, while the second is largely an ethical matter where substantive expertise may be less valuable, or even detrimental.

A risk/benefit analysis involves both understanding *and* improving the risks and benefits of a study. Analysis of risk should include two elements: the probability of adverse events and the severity of those events. As the result of a risk/benefit analysis, a researcher could adjust the study design to reduce the probability of an adverse event (e.g., screen out participants who are vulnerable) or reduce the severity of an adverse event if it occurs (e.g., make counseling available to participants who request it). Further, during the risk/benefit analysis researchers need to keep in mind the impact of their work not just on participants, but also on nonparticipants and social systems. For example, consider the experiment by Restivo and van de Rijt (2012) on the effect of awards on Wikipedia editors (discussed in chapter 4). In this experiment, the researchers gave awards to a small number of editors whom they considered deserving and then tracked their contributions to Wikipedia compared with a control group of equally deserving editors to whom the researchers did not give an award. Imagine, if, instead of giving a small number of awards, Restivo and van de Rijt flooded Wikipedia with many, many awards. Although this design might not harm any individual participant, it could disrupt the entire award ecosystem in Wikipedia. In other words, when doing a risk/benefit analysis, you should think about the impacts of your work not just on participants but on the world more broadly.

Next, once the risks have been minimized and the benefits maximized, researchers should assess whether the study strikes a favorable balance. Ethicists do not recommend a simple summation of costs and benefits. In particular, some risks render the research impermissible no matter the benefits (e.g., the Tuskegee Syphilis Study described in the historical appendix). Unlike the risk/benefit analysis, which is largely technical, this second step is deeply ethical and may in fact be enriched by people who do not have specific subject-area expertise. In fact, because outsiders often notice different things from insiders, IRBs in the United States are required to include at least one nonresearcher. In my experience serving on an IRB, these outsiders can be helpful for preventing group-think. So if you are having trouble deciding whether your research project strikes an appropriate risk/benefit analysis don't just ask your colleagues, try asking some nonresearchers; their answers might surprise you.

Applying the principle of Beneficence to the three examples that we are considering suggests some changes that might improve their risk/benefit balance. For example, in Emotional Contagion, the researchers could have attempted to screen out people under 18 years old and people who might be especially likely to react badly to the treatment. They could also have tried to minimize the number of participants by using efficient statistical methods (as described in detail in chapter 4). Further, they could have attempted to monitor participants and offered assistance to anyone that appeared to have been harmed. In Tastes, Ties, and Time, the researchers could have put extra safeguards in place when they released the data (although their procedures were approved by Harvard's IRB, which suggests that they were consistent with common practice at that time); I'll offer some more specific suggestions about data release later when I describe informational risk (section 6.6.2). Finally, in Encore, the researchers could have attempted to minimize the number of risky requests that were created in order to achieve the measurement goals of the project, and they could have excluded participants who are most in danger from repressive governments. Each of these possible changes would introduce trade-offs into the design of these projects, and my goal is not to suggest that these researchers should have made these changes. Rather, it is to show the kinds of changes that the principle of Beneficence can suggest.

Finally, although the digital age has generally made the weighing of risks and benefits more complex, it has actually made it easier for researchers to increase the benefits of their work. In particular, the tools of the digital age greatly facilitate open and reproducible research, where researchers make their research data and code available to other researchers and make their papers available through open access publishing. This change to open and reproducible research, while by no means simple, offers a way for researchers to increase the benefits of their research without exposing participants to any additional risk (data sharing is an exception that will be discussed in detail in section 6.6.2 on informational risk).

6.4.3 Justice

Justice is about ensuring that the risks and benefits of research are distributed fairly.

The Belmont Report argues that the principle of Justice addresses the distribution of the burdens and benefits of research. That is, it should not be the case that one group in society bears the costs of research while another group reaps its benefits. For example, in the nineteenth and early twentieth century, the burdens of serving as research subjects in medical trials fell largely on the poor, while the benefits of improved medical care flowed primarily to the rich.

In practice, the principle of Justice was initially interpreted to mean that vulnerable people should be protected from researchers. In other words, researchers should not be allowed to intentionally prey on the powerless. It is a troubling pattern that in the past, a large number of ethically problematic studies involved extremely vulnerable participants, including poorly educated and disenfranchised citizens (Jones 1993); prisoners (Spitz 2005); institutionalized, mentally disabled children (Robinson and Unruh 2008); and old and debilitated hospital patients (Arras 2008).

Around 1990, however, views of Justice began to swing from *protection* to *access* (Mastroianni and Kahn 2001). For example, activists argued that children, women, and ethnic minorities needed to be explicitly included in clinical trials so that these groups could benefit from the knowledge gained from these trials (Epstein 2009).

In addition to questions about protection and access, the principle of Justice is often interpreted to raise questions about appropriate compensation for participants—questions that are subject to intense debate in medical ethics (Dickert and Grady 2008).

Applying the principle of Justice to our three examples offers yet another way to view them. In none of the studies were participants compensated financially. Encore raises the most complex questions about the principle of Justice. While the principle of Beneficence might suggest excluding participants from countries with repressive governments, the principle of Justice could argue for allowing these people to participate in—and benefit from—accurate measurements of Internet censorship. The case of Tastes, Ties, and Time also raises questions because one group of students bore the burdens of the research and only society as a whole benefited. Finally, in Emotional Contagion, the participants who bore the burden of the research were a random sample from the population most likely to benefit from the results (namely, Facebook users). In this sense, the design of Emotional Contagion was well aligned with the principle of Justice.

6.4.4 Respect for Law and Public Interest

Respect for Law and Public Interest extends the principle of Beneficence beyond specific research participants to include all relevant stakeholders.

The fourth and final principle that can guide your thinking is Respect for Law and Public Interest. This principle comes from the Menlo Report, and therefore may be less well known to social researchers. The Menlo Report argues that the principle of Respect for Law and Public Interest is implicit in the principle of Beneficence, but it also argues that the former deserves explicit consideration. In particular, while Beneficence tends to focus on participants, Respect for Law and Public Interest explicitly encourages researchers to take a wider view and to include law in their considerations.

In the Menlo Report, Respect for Law and Public Interest has two distinct components: (1) compliance and (2) transparency-based accountability. *Compliance* means that researchers should attempt to identify and obey relevant laws, contracts, and terms of service. For example, compliance would mean that a researcher considering scraping the content of a website should read and consider the terms-of-service agreement of that website. There may, however, be situations where it is permissible to violate the terms of service; remember, Respect for Law and Public Interest is just one of four principles. For example, at one time, both Verizon and AT&T had terms of service that prevented customers from criticizing them (Vaccaro et al. 2015). I don't think researchers should not be automatically bound by such terms-of-service agreements. Ideally, if researchers violate terms-of-service agreements, they should explain their decision openly (see e.g., Soeller et al. (2016)), as suggested by transparency-based accountability. But this openness may expose researchers to added legal risk; in the United States, for example, the Computer Fraud and Abuse Act may make it illegal to violate terms-of-service agreements (Sandvig and Karahalios 2016; ???). At this brief discussion illustrates, including compliance in ethical deliberations can raise complex questions.

In addition to compliance, Respect for Law and Public Interest also encourages *transparency-based accountability*, which means that researchers should be clear about their goals, methods, and results at all stages of their research and take responsibility for their actions. Another way to think about transparency-based accountability is that it is trying to prevent the research community from doing things in secret. This transparency-based accountability enables a broader role for the public in ethical debates, which is important for both ethical and practical reasons.

Applying the principle of Respect for Law and Public Interest to these three studies considered here illustrates some of the complexity researchers face when it comes to law. For example, Grimmelmann (2015) has argued that Emotional Contagion may have been illegal in the State of Maryland. In particular, Maryland House Bill 917, passed in 2002, extends Common Rule protections to all research conducted in Maryland, independent of funding source (many experts believe that Emotional Contagion was not subject to the Common Rule under Federal Law because it was conducted at Facebook, an institution that does not receive research funds from the US Government). However, some scholars believe that Maryland House Bill 917 is itself unconstitutional (Grimmelmann 2015, 237–38). Practicing social researchers are not judges, and therefore are not equipped to understand and assess the constitutionality of the laws of all 50 US states. These complexities are compounded in international projects. Encore, for example, involved participants from 170 countries, which makes legal compliance incredibly difficult. In response to the ambiguous legal environment, researchers might benefit from third-party ethical review of their work, both as a source of advice about legal requirements and as a personal protection in case their research is unintentionally illegal.

On the other hand, all three studies published their results in academic journals, enabling transparency-based accountability. In fact, Emotional Contagion was published in open access form, so the research community and the broader public were informed—after the fact—about the design and results of the research. One quick and crude way to assess transparency-based accountability is to ask yourself: would I be comfortable if my research procedures were written about on the front page of my home town newspaper? If the answer is no, then that is a sign that your research design may need changes.

In conclusion, the Belmont Report and Menlo Report propose four principles that can be used to assess research: Respect for Persons, Beneficence, Justice, and Respect for Law and Public Interest. Applying these four principles in practice is not always straightforward, and it can require difficult balancing. For example, with regard to the decision whether to debrief participants from Emotional Contagion, it might be considered that Respect for Persons might encourages debriefing, whereas Beneficence discourages it (if the debriefing could itself do harm). There is no automatic way to balance these competing principles, but the four principles help clarify trade-offs, suggest changes to research designs, and enable researchers to explain their reasoning to each other and the public.



6.5 Two ethical frameworks

Most debates about research ethics reduce to disagreements between consequentialism and deontology.

These four ethical principles of Respect for Persons, Beneficence, Justice, and Respect for Law and Public Interest are themselves largely derived from two more abstract ethical frameworks: *consequentialism* and *deontology*. Understanding these frameworks is helpful because it will enable you identify and then reason about one of the most fundamental tensions in research ethics: using potentially unethical means to achieve ethical ends.

Consequentialism, which has roots in the work of Jeremy Bentham and John Stuart Mill, focuses on taking actions that lead to better states in the world (Sinnott-Armstrong 2014). The principle of Beneficence, which focuses on balancing risk and benefits, is deeply rooted in consequentialist thinking. On the other hand, deontology, which has roots in the work of Immanuel Kant, focuses on ethical duties, independent of their consequences (Alexander and Moore 2015). The principle of Respect for Persons, which focuses on the autonomy of participants, is deeply rooted in deontological thinking. A quick and crude way to distinguish the two frameworks is that deontologists focus on *means* and consequentialists focus on *ends*.

To see how these two frameworks operate, consider informed consent. Both frameworks could be used to support informed consent, but for different reasons. A consequentialist argument for informed consent is that it helps to prevent harm to participants by prohibiting research that does not properly balance risk and anticipated benefit. In other words, consequentialist thinking would support informed consent because it helps prevent bad outcomes for participants. However, a deontological argument for informed consent focuses on a researcher’s duty to respect the autonomy of her participants. Given these approaches, a pure consequentialist might be willing to waive the requirement for informed consent in a setting where there was no risk, whereas a pure deontologist might not.

Both consequentialism and deontology offer important ethical insight, but each can be taken to absurd extremes. For consequentialism, one of these extreme cases could be called *Transplant*. Imagine a doctor who has five patients dying of organ failure and one healthy patient whose organs can save all five. Under certain conditions, a consequentialist doctor will be permitted—and even required—to kill the healthy patient to obtain his organs. This complete focus on ends, without regard to means, is flawed.

Likewise, deontology can also be taken to awkward extremes, such as in the case that could be called *Time bomb*. Imagine a police officer who has captured a terrorist who knows the location of a ticking time bomb that will kill millions of people. A deontological police officer would not lie in order to trick a terrorist into revealing the location of the bomb. This complete focus on means, without regards to ends, also is flawed.

In practice, most social researchers implicitly embrace a blend of these two ethical frameworks. Noticing this blending of ethical schools helps clarify why many ethical debates—which tend to be between those who are more consequentialist and those who are more deontological—don’t make much progress. Consequentialists generally offer arguments about ends—arguments that are not convincing to deontologists, who are worried about means. Likewise, deontologists tend to offer arguments about means, which are not convincing to consequentialists, who are focused on ends. Arguments between consequentialists and deontologists are like two ships passing in the night.

One solution to these debates would be for social researchers to develop a consistent, morally solid, and easy-to-apply blend of consequentialism and deontology. Unfortunately, that’s unlikely to happen; philosophers have been struggling with these problems for a long time. However, researchers can use these two ethical frameworks—and the four principles they imply—to reason about ethical challenges, clarify trade-offs, and suggest improvements to research designs.

6.6 Areas of difficulty

The four ethical principles—Respect for Persons, Beneficence, Justice, and Respect for Law and Public Interest—and the two ethical frameworks—consequentialism and deontology—should help you reason about any research ethics problems that you are facing. However, based on the characteristics of digital-age research described earlier in this chapter and based on the ethical debates we have considered so far, I see four areas of particular difficulty: *informed consent*, *understanding and managing informational risk*, *privacy*, and *making decisions in the face of uncertainty*. In the next sections, I will describe these four issues in more detail and offer advice about how to handle them.

