

# **Data Privacy and Security: Ethics Behind Collecting Data, Using Data, Storing Data, Sharing Data, Securing Data, and How To Do These Things Ethically**

## *Ethics in Information Technology: A Comparative Analysis*

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### **I. INTRODUCTION**

Many “of us do not realize how exposed our lives are, or can be, by common data practices” [1]. Lots of things such as “reading and Internet search habits, political and religious views,” [1] and “private conversations at home” [1] may “be stored somewhere unknown to you, often without your knowledge or informed consent” [1] within a “chaotic data ecosystem that gives individuals little to no ability to personally” [1] “delete, correct, or control the release of that information” [1].

What are the ethics behind collecting data, using data, storing data, sharing data, securing data, and how should these things be approached ethically? “Unethical or ethically negligent data privacy practices, from poor data security and data hygiene, to unjustifiably intrusive data collection and data mining, to reckless selling of user data to third parties, can expose others to profound and unnecessary harms” [1]. Therefore, we must find out how to solve them through ethical philosophies. Information privacy is identical to data privacy. The scope and purpose of the paper is to determine the thinking behind many ethical philosophies from a data privacy perspective by analyzing case studies. Data security will be briefly talked about, but not analyzed thoroughly.

### **II. BACKGROUND**

Each ethical philosophy will be defined, and general data privacy and data security backgrounds will be defined.

#### **A. Ethical Philosophies**

*a) Kantianism:* Kantianism is a philosophy where if someone believes in it, they would ask themselves, “what’s the maxim of my action,” [2] or “what’s the general rule that stands behind the particular action” [2] that they’re considering [2]? This means with this philosophy, if someone believed it, they would have to consider general rules behind any action they plan on executing and follow those rules to determine if an action should be executed or not, so for example, lying or stealing should never be done regardless of the circumstance.

*b) Ethical Egoism:* Ethical egoism is a philosophy that “claims that it is always right to do what would benefit you the most,” [3] so “it is morally good to do whatever will give the best outcome for you, not necessarily what you believe will give you the best outcome but will actually give the best outcome for

you” [3]. This means with this philosophy, if someone believed it, they would aim to only care about doing things that would benefit themselves only.

c) *Social Contract*: Social contract, or contractarianism, is a philosophy that is bound by a “shared agreement” [4] promising “not to steal from each other,” [4] to benefit both parties, like how one of the two parties may have “more security and a more interesting diet” [4] after making a “promise to trade, avocados for mangos” [4]. This means with this philosophy, if someone believed it, then another person would have also believed in it to reach compromises to benefit each other in some form.

d) *Act Utilitarianism*: Utilitarianism is a philosophy that “focuses on the results, or consequences, of our actions, and treats intentions as irrelevant” [5]. Act utilitarianism is a philosophy saying “in any given situation, you should choose the action that produces the greatest good for the greatest number” [5]. This means with act utilitarianism, whoever believed in it would choose actions that have overall good results for the most people ignoring intentions.

e) *Critical Cultural Relativism*: Cultural relativism is “a pedagogical and sometimes political medium to challenge ethnocentric western views and cultural practices and to promote an appreciation of cultural diversity” [6]. This means that cultural relativism challenges the cultural practices of cultures to promote cultural diversity appreciation. Critical cultural relativism critiques “cultural practices in terms of human rights” [7] suggesting “that practices should be evaluated in terms of how and why they are adopted” [8]. This means with critical cultural relativism, cultural practices should be checked focusing on only the how and why questions which could also be considered critiquing human rights.

#### B. *Data Privacy Terms and Details*

Some possible key terminologies is how a data privacy book is organized, mentioning these things: “the concept of data privacy, situating its underlying assumptions and challenges within a historical context; we then describe the framework and a systematic guide for the General Data Protection Regulations (GDPR) for individual businesses and organizations,” [9] “the third area focuses on Facebook, its abuses of personal data, corrective actions, and compliance with GDPR,” [9] where Facebook could be modified to target general companies.

#### C. *Data Security Terms and Details*

Some technical details related to data security are “Data science techniques” [10] for “cyber security applications” [10] that “include intrusion detection, insider threat detection, and malware analysis,” [10] though it is possible I would not try to grab the details on everything relating to that and mostly would focus on the “privacy-enhancing data science techniques” [10].

### III. BODY

Privacy and data protection is disregarded by some companies for many reasons such as egoism or act utilitarianism to benefit the companies' profits more than maintain respect with its userbase. It is ethically relevant because it is a common problem dealt with today which if companies consider ethics for, could become less of an issue.

An advantage of egoism is that companies could collaborate between each other to try to protect users data for some incentives, but there would usually only be incentives if the company is going downhill in reputation for data privacy, so one disadvantage of it would be companies disregarding data privacy if their reputation won't take much of a hit just to increase profits a little more. Act utilitarianism has the same exact idea as above in advantages and disadvantages. Social contracts have advantages of making sure that are clear rules on how data should be handled but also have disadvantages of the rules possibly being outdated at some points, especially from a cybersecurity perspective for cybersecurity policies. Kantianism has advantages of moral laws being the reason behind how data privacy can be respected but has disadvantages how those moral laws can forget some basic fundamental privacy rules to consider with no real set-in-stone policies to follow which ultimately can hurt privacy more if it is the only view of philosophy a cybersecurity engineer specializing in data privacy views. Critical cultural relativism is near identical to Kantianism and in terms of data privacy of users, are somewhat identical but instead users can be split up into different cultural beliefs and how's and why's can be questioned regarding those.

For Kantian's principle relating to web platform data privacy, "The Kantian principle of respect for persons dictates that web platforms should be transparent with its users concerning its use of their data, allowing users to make informed choices when using a platform" [11]. Therefore it is possible if "Sony had applied Kantian principles during its 2011 data breach, the impact on its brand and revenues may have been less severe" [11] because users should be able to hide personal information as "passwords, email addresses, home addresses and birthdays" [12] were breached from Sony's servers. Home addresses and birthdays definitely should be options of personal data that is removable, even if there is an argument they can be used for 2FA or something, there are more ways that breaches less personal details besides storing personal information like that. Therefore, Sony should have been transparent to pretty much say what kind of data they collect and store from their users onto their servers for Kantianism.

For ethical egoism in regards to the Asking for Facebook Logins case study, there are three values that conclude ethical egoism which are "that values are necessary for living, that only certain values enable that living, and that those values are good" [13]. If the goal of egoism is just to choose actions that benefit themselves, then personal information can in theory just be collected as soon as it's heard of because "the information is in somebody's mind or stored on their property, that party can by right do what he or she

wants with that information unless the information was gained on expectations that it remain private” [13]. Facebook says that “users must not share their login information with other parties,” [13] but employers are “purposefully ignoring that policy” [13] and thus “trespass on Facebook’s servers,” [13] so it is possible if Facebook decides not to “file these suits to protect their users’ privacy, users may lose trust in Facebook and switch to other social networks” [13]. However, it is also possible that if Facebook does nothing, maybe sharing login information would encourage more of those employers to collect login information. Overall from an ethical egoism standpoint, it is best to focus on the general public more, so the job applicants, for Facebook’s highest benefit instead of doing nothing.

For contractarianism continuing on the Asking for Facebook Logins case study, the shared agreement is supposed to be the terms of service, so not sharing login information with other parties should be the trade result benefiting the users in exchange for data collection to store messages on the platform and be able to communicate with others as one of the main goals of Facebook [13]. If both parties believe in this, so Facebook and it’s users, then the users will be willing to stay on their platform naturally from a data privacy standpoint and Facebook can continue to collect massive amounts of data to allow people to communicate with each other. However, if both parties did not believe in this, especially Facebook, then if employers were collecting login information from other Facebook users and Facebook just brushed it off, then Facebook would most likely lose users as the contract would have been broken.

For act utilitarianism, the “view of privacy might allow certain incursions into privacy if the result is the greater good,” [14] have an “emphasis on avoidance of harm,” [14]. Two themes “of research ethics” [14] regarding the “Facebook experiment” [14] debate are “research as manipulation, and the problem of informed consent” [14] where utilitarianism “sees little or no harm done in such an experiment and no loss of happiness caused by it” [14]. Act utilitarianism would be applicable here too as the greatest good for the greatest number of people would be to not have problems regarding informed consent or research as manipulation to try to give out fake news or to force unrealistic consents [14].

For critical cultural relativism, there are how and why questions regarding cultural practices continuing on the Asking for Facebook Logins case study. Employers “risk establishing a culture of distrust, where employees are seen as liabilities rather than resources and disrespect, dissatisfaction, and unfairness” [13] when they decide to invade privacy of job applicants. How is there a culture of distrust? There is a culture of distrust when the employer wants to collect your login information. Why is there a culture of distrust? There is a culture of distrust because collecting login information invades privacy to the point where the employer could potentially stalk you and track your every move from login information alone,

making the potential work environment more stressful, or could just be used for data collection practices if the company is sketchy.

From these analyses across various ethical philosophies in regards to data privacy ethics in information technology, I argue contractarianism is the number one philosophy companies should consider from a data privacy perspective. This is because having an agreement to basically have any company like Facebook handle a users data should mean they will not do bad things with a users data and that users themselves will not try to share credentials with others that can heavily be used against the users which companies like Facebook should regulate. Setting this up seems very important. Kantianism is the second philosophy I argue companies should consider from a data privacy perspective because disclosing what data is collected of users to give the user options to consent to certain kinds of data collection is hand-and-hand with contractarianism in importance, or else users may question the companys practices.

Act utilitarianism is the third philosophy I argue companies should consider from a data privacy perspective because the aim would be to have great results for the greatest number of people, which in theory could give an idea for companies to look for great results in data privacy and data security of all of their users, a great number of people in general. Ethical egoism is the fourth philosophy I argue companies should consider from a data privacy perspective. This is because ethical egoism focuses solely on Facebook's benefits rather than the users, which could be taken the wrong way, though could still be interpreted in a good way if mixed in with act utilitarianism. I argue that critical cultural relativism is the least important philosophy companies should consider from a data privacy perspective. This is because focusing solely on culture as the basis of what company policies or what the company should do does not make sense as much as trying to benefit themselves, the most number of people, setting up policies in the first place, or considering general rules on actions a company should execute all seem more significant than checking out cultural practices of users especially regarding data privacy.

#### IV. CONCLUSION

Some strengths of my arguments is that there are many companies that do bad things with data and that ethical philosophies could assist them away from doing those bad things. Some weaknesses are that the disadvantages can sometimes be unclear or sometimes not mentioned, that there may have been better points to consider, and that my argument positioning at the end of the body could be moved to give the reader questions on my argument while reading about different philosophy analyses. Some of these issues would be fixable with a slightly larger page limit, particularly the disadvantages sometimes not mentioned as it would make the most sense to have a second perspective for each ethical philosophy, but all the analyses for one

perspective already took up many pages and it seems inconsistent to me to have two for some but one for others.

What are the ethics behind collecting data, using data, storing data, sharing data, securing data, and how should these things be approached ethically? “Unethical or ethically negligent data privacy practices, from poor data security and data hygiene, to unjustifiably intrusive data collection and data mining, to reckless selling of user data to third parties, can expose others to profound and unnecessary harms,” therefore, we must find out how to solve them through ethical philosophies [1]. Some findings included finding out that philosophies like social contract, act utilitarianism, kantianism, egoism, and critical cultural relativism alone are not enough for people in charge of data privacy to consider, and rather it is best for people in charge of data privacy to consider some sort of combination of these. I talked about data privacy, data security, the definitions of the philosophies themselves I chose to analyze, analyzed those philosophies, then argued that contractarianism is the number one philosophy that should be considered from a data privacy perspective and ended my argument saying critical cultural relativism is the last philosophy out of the 5 philosophies mentioned that should be considered from a data privacy perspective.

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