Portfolio Assignment 1
Comparing Ethical Models - Virtue Ethics and Contextual Integrity

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Introduction
Ethical models help us reflect on how to act responsibly in data science. In this essay, I compare Virtue Ethics (Aristotle) and Contextual Integrity (Nissenbaum, 2004, 2010). These models differ strongly: Virtue Ethics focuses on the character and values of people and society, while Contextual Integrity provides a practical framework to evaluate whether data flows are ethically acceptable. I argue that Contextual Integrity is best understood and applied through the lens of Virtue Ethics.

Virtue Ethics (Aristotle)
Virtue Ethics is one of the oldest ethical theories. Aristotle argued that ethical behavior comes not from strict rules or from calculating outcomes, but from developing good character traits, i.e. the virtues. Examples include honesty, fairness, courage, and wisdom. A virtuous person learns to act in ways that express these qualities and to find the "golden mean" between extremes (e.g., courage as the mean between cowardice and recklessness). The strength of Virtue Ethics is that it emphasizes moral growth and the social context of values. A weakness is that it gives little concrete guidance for specific cases, since what counts as virtuous may differ across cultures.

Contextual Integrity (Nissenbaum, 2004, 2010)
Contextual Integrity defines privacy as the appropriate flow of information within a social context. Each data flow can be described using three parameters:
- Actors (sender, subject, recipient),
- Attributes (what type of information),
- Transmission principles (the rules under which data is shared).

A flow is ethical if it fits the established norms of that context. For example, sharing health data with a doctor may be appropriate, but sharing it with an employer may not. Contextual Integrity is therefore a pragmatic process model that can be applied directly to data practices. Its strength is practical clarity, but it mainly covers privacy and does not fully address wider concerns such as fairness or autonomy.

Similarities
Both models recognize the importance of context. Virtue Ethics considers how moral character is shaped by society and its values, while Contextual Integrity considers whether information flows match the social norms of a situation. Both also reject a purely rule-based view of ethics, stressing that judgment depends on circumstances.

Differences

- Level of analysis: Virtue Ethics is about the person and their moral character; Contextual Integrity is about the practice of data handling.
- Scope: Virtue Ethics is broad and touches all areas of life; Contextual Integrity is narrower, focusing mainly on privacy.
- Practicality: Virtue Ethics provides a moral compass but little step-by-step guidance. Contextual Integrity gives concrete tests, but without deeper reflection on values.

Preference and Suitability

In my view, Virtue Ethics should guide how we use Contextual Integrity. Contextual Integrity is useful for checking whether a data practice is contextually appropriate, but this alone is not enough. Virtue Ethics reminds us to ask whether those practices also align with the kind of virtues and values we want to uphold, such as honesty, fairness, and respect for others. Put differently, Contextual Integrity is a tool for analysis, but Virtue Ethics is the moral lens through which we evaluate its outcomes. For data ethics, this combination ensures that data flows are not only contextually fitting but also contribute to the cultivation of responsible and virtuous data science.

Conclusion

Virtue Ethics and Contextual Integrity approach ethics from different angles: one focused on moral character, the other on information practices. On its own, Contextual Integrity offers practical guidance but risks being too narrow. When evaluated through Virtue Ethics, however, Contextual Integrity gains depth, linking concrete privacy decisions to broader human values. For applied data ethics, this integrated approach is most suitable: Contextual Integrity for practical evaluation, and Virtue Ethics for ensuring that these evaluations reflect the kind of professionals and society we strive to be.

References

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