Portfolio assignment 1 - Liam van Vliet - Ethics MADS

1 & 2

Aspect	Deontological Ethics	Virtue Ethics
Core principle	Morality is about following universal duties, rules, and rights.	Morality is about cultivating good character traits (virtues) and acting as a responsible professional.
In data science focus	Compliance with principles, regulations, and codes (e.g., fairness, accountability, transparency, privacy).	Development of ethical culture and responsible practitioners who embody virtues like honesty, humility, and care.
Strengths	- Provides clear rules and safeguards (D'Alessandro, 2024) Protects individuals by emphasizing harm avoidance (D'Alessandro, 2024) It aligns well with legal / regulatory norms (e.g. rights-based rules, safety requirements) (Ozone, 2019).	- Grounds ethics in character (virtues) and in human well-being (capabilities) rather than merely rule compliance (Bezuidenhout & Ratti, 2020) Useful in education / training: embedding moral attention into curricula and practice (Bezuidenhout & Ratti, 2020).
Weaknesses	- Duties can conflict. For instance: Duty to protect privacy vs duty to ensure public safety (Ozone, 2019) Can become rigid, ignoring context or unintended harms. Deontology in its strict form forbids violations of certain duties regardless of overall consequences. But this can lead to very large harms if applied rigidly (D'Alessandro, 2024).	- While ideals like truthfulness, accountability, integrity are important, they can't simply justify deployment of detection methods without scrutiny of the costs (Ratti & Graves, 2021) Training and measuring virtues (like humility, responsibility, fairness) is much harder than enforcing rules or compliance checks (Hagendorff, 2022).
Practical example	A data science team ensures an algorithm complies with GDPR's right to explanation and does not use sensitive data in violation of anti-discrimination laws.	A data scientist chooses to go beyond legal requirements by proactively investigating bias in data, motivated by integrity and care for affected users.

Deontology and Virtue Ethics are both non-consequentialist approaches that reject judging actions purely by their outcomes, but they differ in focus: Deontology emphasizes universal duties and rights (for example privacy, fairness, accountability), while Virtue Ethics stresses the moral character of the practitioner (for example honesty, responsibility, care) and asks "What kind of person should I be?". Deontology provides clear rules that can be codified into frameworks (such as not using sensitive data or ensuring the right to explanation), whereas virtue ethics guides people to cultivate integrity and responsibility, preventing ethics from becoming a checkbox.

4

While both deontological ethics and virtue ethics provide valuable perspectives for data science, deontology offers a stronger foundation because it sets out clear and enforceable duties such as fairness, transparency, and privacy, which can be translated into regulation and organizational practice. This clarity is crucial in high-stakes contexts where ethical ambiguity can cause significant harm.

5

For data ethics, deontology seems the most suited framework because it provides clear, enforceable rules—such as fairness, transparency, and respect for privacy—that can be translated into laws, policies, and technical safeguards. As Hagendorff (2022) argues, rules alone are not enough without moral integrity. Therefore, while deontology serves best as the anchor, but is most vital.

Sources:

- Bezuidenhout, L., & Ratti, E. (2020). What does it mean to embed ethics in data science? An integrative approach based on microethics and virtues. *AI & Society*, *36*(3), 939–953. https://doi.org/10.1007/s00146-020-01112-w
- D'Alessandro, W. (2024). Deontology and safe artificial intelligence. *Philosophical Studies*. https://doi.org/10.1007/s11098-024-02174-y
- Hagendorff, T. (2022). A Virtue-Based Framework to Support Putting AI Ethics into Practice. *Philosophy & Technology*, *35*(3). https://doi.org/10.1007/s13347-022-00553-z
- Ozone, T. (2019, May 8). *Deontological AI Ethics*. Medium. https://medium.com/@tim_ozone/deontological-ai-ethics-c8de98211497
- Ratti, E., & Graves, M. (2021). Cultivating Moral Attention: a Virtue-Oriented Approach to Responsible Data Science in Healthcare. *Philosophy & Technology*, *34*(4), 1819–1846. https://doi.org/10.1007/s13347-021-00490-3