

Week VI: Ethics in innovation

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Starting Questions

- What is ethics?
- Example of ethical/unethical behaviour of yours in your personal life?
- When is it difficult to determine the choice of behaviour?
- Is ethics about others or is it about me?
- Behaving ethically in a largely unscrupulous society?
- What about ethics in academic responsibilities?
- What about ethics in projects?
- How may of you feel you marked yourself ethically on individual contribution of formative assessment?
- Ethics as an internal dialogue.
- Ethics do not suddenly become important in life when you are 30 years, it starts from very beginning.

Discussion

- pesticides kill parasites but also pollute the water supply.
- Application of new surveillance technologies to increase workplace productivity and safety.
- Think of nuclear weapons.
- Cambridge Analytica. Facebook.
- Autonomous Driving Cars.
- Ethics and Advertisement.

Introduction

- Innovation is very much an ethical matter because ethics is fundamentally concerned with anything that can promote or hinder human wellbeing.
- Innovation is not just technological or economical, but also ethical and social.
- The extension and enriching of human lives are good goals, which in turn makes innovation generally a good thing.
- Innovation isn't just a 'good,' but a downright moral obligation.
- Hence the recent interest not just in innovation, but in managing innovation.
- Is this platform/product actually providing a social good?
- Am I harming the user in creation of this solution?

Best Practices in Innovation

- **Impact** : How much difference will the innovation make in the field it is suggested?
- **Appropriateness**: Will it be socially, culturally, politically acceptable?
- **Burden**: Will it address the most pressing needs in the area?
- **Feasibility**: Can it be realistically developed and deployed in a time-frame of 5-10 years?
- **Knowledge Gap**: Does it create new knowledge?
- **Indirect benefits**: Does it address issues such as environmental improvement and income generation?

- Diffusing a new innovation requires **understanding the local environment**. Social, economic, and cultural environments vary greatly across and even within countries, and deploying new programs requires an understanding of these environments. Innovators must consider the **need for expertise in sociology, anthropology, public policy, and economics**, and establish coherent criteria for selecting countries to target based on social, economic, and cultural realities.(2) An invention **always engages closely with cultural practice and systems**, and it must already have a close relation to the contingencies that surround it and that will influence its fate.
- **Ethical Frameworks for Innovation**
 - Utilitarianism: The greatest good for the greatest number
 - Rights: An Individual's rights should not be violated
- Moral motivation leads to moral imagination, which is why great innovative social companies have come about from thinking of how to make the world a better place, in finding a solution to world poverty or creating employment for disabled.

User data and ethics

- Today the Big Four (Amazon, Google, Apple, and Facebook) hold the majority of user data (an estimate of 1,200 petabytes – that's a staggering 1.2 million terabytes).
- Ethics are not just important, but crucial to turning these powerful algorithms in favour of humans.
- Machines learn ethics through code that it is programmed for.
- The Internet is only 37 years old. So, you can imagine the pace of innovations in the world of AI.
- Without ethics, a field that is so fast paced would mean disaster if put into the wrong hands.
- It is not that the technologists are neglecting their responsibility to society, but that they are not aware of methods to properly evaluate the impacts of their technologies.

Recommended Readings

- When Innovation and Ethics Collide
- America Needs to Align Technology With a Public Purpose
- Cell-Phone Addiction: A Review
- Apple's Unethical Innovation
- Unethical Innovation: On the Technocracy and Uneducated Engineers via Medium
- Organizations Appear More Unethical than Individuals

Along with the ability to make great change came great responsibility