Epistemology and Ethics of Business Analytics
Ethics – Week 2

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Overview

1. *understand* the core aspects of ethical arguments, based on an understanding of validity in propositional logic.
2. *apply* core arguments for objectivity in ethics to the management of technology.
3. *analyse* core questions concerning the ethics of data gathering and the ethics of influence in the management of technology.

- Lecture 1: Objectivity in Ethics
  - Is ought fallacy
  - Arguments against relativism/subjectivism
- Lecture 2: Data ethics I: Gathering data legitimately
- Lecture 3: Data ethics II: Using data legitimately

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Recap of previous lecture

1. People believe that [x is ethical]
2. If people believe that x is ethical, then x is ethical.
3. Therefore, x is ethical.

- Is-ought fallacy
- Limited relevance of law, experiments, opinion.

- Arguments with normative or evaluative conclusions must contain evaluative or normative premises.

Recap of previous lecture II

- Ethical (evaluative, normative) claims are objective
- Downsides of relativism & subjectivism:
  - Allows that things that seem extremely bad can be good
- Rejected bad arguments for relativism & subjectivism
- Objectivity of ethical claims: true or false independently of people‘s opinion

Business analytics

- := Analysis of past business performance to gain insight and drive business planning. (Wikipedia)
- := process of using quantitative methods to derive meaning from data to make informed business decisions (HBS)
- Focus on customer data

Why business analytics?

- Political and economic reasons
  - Generate value for shareholders
  - Generate value for stakeholders (wider set than shareholders)
- Competition
- Increase value through better preference satisfaction
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- Whose alternatives would customers chose over others?
  - Prices
  - Products incl services
  - Terms & conditions
  - ….

Descriptive analysis of sales data

Predictive analysis of customer behaviour

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Data ethics

- Ethical questions about the *generation*, *gathering*, *analysis, protection,* and *use* of personal data.
- Key questions concern *bias*, *privacy*, *security*, and *autonomy*.

- Focus today on *gathering* data

Further issues

- Data quality (not covered)
  - Fairness and bias
- Security and privacy (not covered)
  - Storing data
- Data use (final lecture)
  - Manipulation
  - Coercion

Data gathering: Issues with consent and privacy

Consent

- The principle of informed consent
  - A consents to B doing x to A.
- Example
  - A consents that B gathers data about A and uses that data to offer targeted advertising.
- Has Target obtained consent for their advertising?

Historic roots of informed consent

- 1947 Nuremberg code on human experimentation
- 1964 Declaration of Helsinki by doctors' council
- Switch from 'doctor knows all' to 'autonomy of the individual'

Requirements of informed consent

- Informed
  - No lies and deception
  - No partial disclosure
- Voluntary
  - No coercion
  - No ‚undue inducemenet‘ e.g. cash reward
  - Alternative options are reasonable
- Decisionally-capacitated

Why informed consent?

- Informed consent preserves autonomy
- Shows respect for subject
- Autonomy is intrinsic and instrumentally valuable
- Difficulty when violating informed consent can increase autonomy

Privacy

- Constitutional privacy := freedom to make your own decisions

- Informational privacy := exercising control over access to information about yourself

Why is privacy valuable?

- Prevention of harm (e.g. access to bank account)
- Informational inequality
- Informational injustice (fitness tracker data and health insurance)
- Autonomy risk

Implications for business analytics

- Require some form of consent
- Protect privacy

Break, 15min

A mechanism for gathering *data about individuals*

Data markets

- Offering service in exchange for data
- Data as a commodity traded on a market
- Should we have a data market? Should businesses participate in such markets to obtain data?

Satz on noxious markets

- Markets are good because
  - Optimal distribution of resources
  - Promote freedom and autonomy

- Markets are noxious when
  - they lead to harmful outcomes
  - they undermine cognitive agency and exploit vulnerabilities

Castro & Pham on noxious data markets

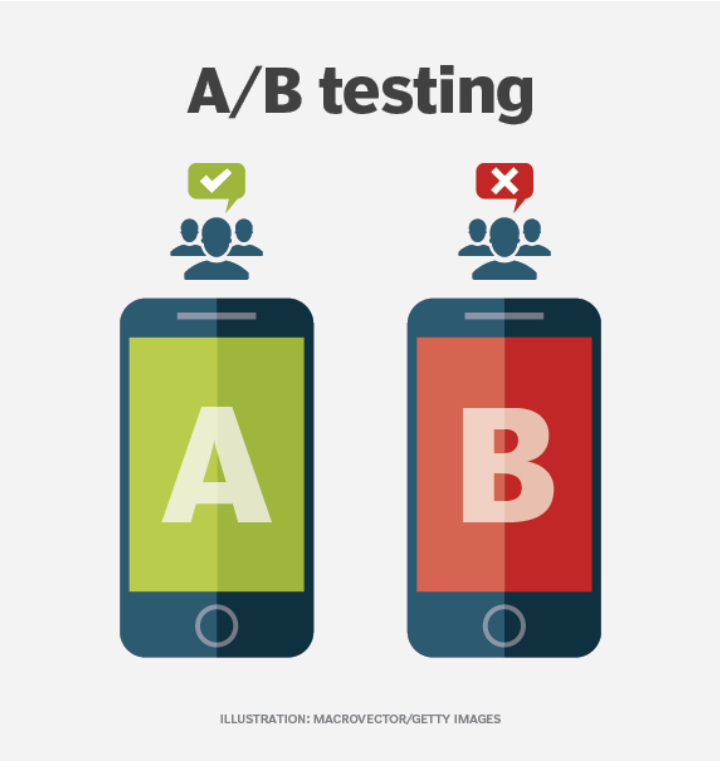
- They criticise the attempt to gather data by designing attention-grabbing prodcuts
- Such data markets harm individuals
  - Correlation between social media use and negative health outcomes
- They harm society
  - Radicalisation and echo chambers

Castro & Pham on noxious data markets (2)

- Impairment of cognitive agency
  - Designed for addiction (Hooked model)
  - Bypass rational capacities

- Exploitating vulnerabilities
  - No opt out option

A method for gathering *data about products*



A/B testing

- Random exposure of users to treatment and control condition(s), measure of results (e.g. conversion rate in online shop).

- Increasingly common, even automation possible online

The fundamental issue

- Experiments in academic contexts require ethical oversight (Institutional review boards)
- But no checks and barriers apply to A/B testing
- What could be problems?

Ethical principles for A/B testing

- Autonomy
- Fairness
- Non-maleficience (avoid harm)
- Beneficience (promote good)

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A method for protecting individual *data through ownership*

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Data ownership

- Owning data – possessing certain rights about your data to alleviate concerns
- Gathering data without consent may amount to ‚stealing‘
- Conceives of data as commodity
- Does not necessarily allow markets – not everything you own can be for sale

Hummel et al on data ownership

- Owning data vs rights concerning data
- Proprietary rights (alienable) vs personal rights (non-alienable)

Hummel et al on data ownership

- Lockean justification for property: labour
- Labour missing in data (if not provided by business) – subjects are co-owners at best
- Property includes alienability. Stresses the need to *negotiate* about access, penalise undue access, and allow for *refusal* to share data.
- (Quasi-)Property rights to balance power, but may simply legitimise current practice

Wrap-up

- Business analytics ~ use data to better satisfy preferences
- Gathering, storing, using data
- Consent
- Key ethical aspects of *how* to gather data about individuals and a possible remedy

Backup