

Ethical issues in Data Mining

Data Mining, COSC2111

Shonil Dabreo, s3835204

Mark Pereira, s3797413

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The process of generating rules through a mining operation becomes an ethical issue when the results are used in decision making processes that affect people; or when mining customer data unwittingly compromises the privacy of those customer.

Privacy threatened by web-data mining

- The ethical objections lies in the possible violation of peoples' (informational) privacy.
- Protecting the privacy of users of the Internet is an important issue.
- The privacy can be violated when information concerning an individual is obtained, used, or disseminated, especially if this occurs without their knowledge or consent.

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Individuality

- Profiling through web-data mining can, however, lead to de-individualization.
- When group profiles are used as a basis for decision-making and formulating policies, or if profiles somehow become public knowledge, the individuality of people is threatened. People will be judged and treated as group members rather than individuals.

Web usage mining

- Web usage mining by looking at user traces without their knowledge is another concern done by companies using cookies and session mainly to pursue advertisement in e-commerce.
- Consumers have to be explicitly informed that data mining techniques are being used by certain businesses, and that data about them is currently being mined in ways, which they probably have not explicitly authorized. Only then will they be able to make informed choices that will best contribute to their overall well-being.

Ethical issues in Data Mining

Content and structure mining

- Web data is publicly available which could be used for different purposes, taking it completely out of context.
- Certain bits of data that are not considered to be privacy violating, can be collected and assembled with other data, leading to information that can be regarded as harmful .

Ethical issues in Data Mining

Ethical issues in private sector

- Customers are classified., receiving different services or different cost structures. Detailed consumer information lets apparel retailers market their products to consumers with more precision.
- Privacy rules impose restrictions and barriers to data collection could increase the prices consumers pay.
- Retailers cannot target their advertising and their only option is to mass advertise, which drives up costs.

Ethical issues in Data Mining

Handling ethical issues in private sector

- We refer to actions an individual can take in order to protect himself/herself against possible harms. For example, users being cautious when they are asked to provide information online, restrict from filling online forms, etc.
- Organizations should demonstrate the guidelines to their consumers so that the consumers are aware about what's happening with their data.
- Government should monitor web mining activities or other legal measures.
- Individuals are limited in their possibilities to protect themselves. They could choose to combine forces, and make sure that personal data is systematically refused by large groups of people. A large-scale refusal of data would, however, also block all the possible advantages of group profiling.

References

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