**Ethical and Legal Issues concerning Predictive Analytics**

Predictive Analytics is used by companies and governments to interpret and analyse data and make predictions about future events. It has a wide array of uses in multiple industries. Every year adoption is growing, and new applications of the technology appear. There are however many ethical and legal issues such as how to handle user’s private information. Government legislation is another hurdle that the industry is facing. For Example, The General Data Protection Regulation (GDPR) in Europe has brought in sweeping rules relating the protection of personal data. This heavily limits what can be done with a user’s personal data.

**General Data Protection Regulation (GDPR)**

Predictive Analytics requires a large amount of data to be gathered. All laws regarding the use of personal data must be followed. GDPR was adopted by the EU in 2018, the regulation brought in sweeping new rules to “enhance the data protection rights of individuals” (European Council 2015a). GDPR governs how data is collected, how it can be used and how it must be protected. As a controller or processor of personal data, companies must put in place “appropriate technical and organisational measures” to meet all requirements of GDPR (European Council 2015b). There are even more restrictions on what can be done with sensitive data such as race, religious beliefs, health-related data. With sensitive data conditions must be met such as: The explicit consent of each user along with what the data will be used for, must be obtained to use their data (European Council 2015c).

GDPR heavily limits the harvesting and processing of user data. From a user’s perspective it is very positive as it gives the user new basic rights for the digital age. From a data analytics perspective it brings many challenges. With users having to consent to each use of their data along with consent specifically for marketing purposes, the pool of data for analytics will decrease (DATACONOMY 2018). One way of avoiding the restrictions on user data is to anonymise the data, according the GDPR “The principles of data protection should therefore not apply to anonymous information” (European Council 2015d). While anonymous data may provide less useful information it can be harvested and processed with significantly less restrictions allowing much larger amounts of data to be gathered. Data analysts must adapt and find new ways to gather enough user data while following all rules and regulations.

**Healthcare**

Machine learning in healthcare is growing rapidly. It can be used to improve patient care, chronic disease management, hospital administration and supply chain efficiencies (Health Catalyst 2019).

Big data analytics has the ability to go beyond improving profits and cutting down on waste, to be able to predict epidemics, cure diseases, improve the quality of life and reduce preventable deaths (Atreyi Kankanhalli 2016)

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