Analysis of product feedback from platforms such as Reddit and GitHub

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Platforms such as Reddit and GitHub provide us with the opportunity to better understand user experiences of a variety of products. Through Application Programme Interfaces (APIs), we can extract information such as comments from these platforms, which in turn enable us to apply modern Machine Learning and Artificial Intelligence techniques. For example, allowing us to categorise information under themes such as how difficult, easy, and enjoyable a product is to use, and if users would recommend it or not.

This project offers the opportunity to agree with the supervisor on a specific set of products and what platforms we can study. Our research questions could be:

- 1. Is the platform we have chosen a useful source of information?
- 2. What can we recommend as improvements to a particular product?
- 3. What is working well for the product?

Python can be used for much of the analysis, using natural language packages such as nltk[1] and machine learning packages such as sklearn[2]. Other options are possible if the student prefers. This is an active area of research, with studies in similar fields available for reference [3,4].

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Agent-based Models of the Media Landscape

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Agent-based modelling (ABM) approaches are used to model how information within the media landscape is communicated in society. For example, we can consider the likes of "Echo Chambers" and "Filter Bubbles" [1,2,3,4]. Modelling the media landscape is achieved by analysing the various actors and interactions that define it. In these modelling scenarios, the likes of journalists and consumers are considered agents or actors. Further, their various interactions include the transfer of information between one another.

To model the media scenarios, we will work primarily with the NetLogo software program [5,6]. We will discuss what we would like to simulate, including some clearly defined research questions. The goal is to design a system of agents and relationships, defined with environmental parameters to simulate different media and information transfer scenarios. This will include defining a probabilistic network of connections between various agents, including how people will align into different groups [7].

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