Library Resource Promotion
via Browser Extension
(Technical Report)

Use of Decision-Aid Technologies in Soccer
(STS Research Paper)

An Undergraduate Thesis Portfolio
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Table of Contents

Sociotechnical Synthesis

The University of Virginia (UVA) Library has an extensive list of resources and services, which many people are not aware of. A lot of books and videos that people buy off amazon and eBay is available for free at the library. According to the University of Virginia Library Statistics Report of 2017, the total number of people using the library has reduced from 104,280 in 2010/11 to 72,938 in 2016/17. Lack of knowledge about university resources and ease of online shopping is one of the main reasons for the decline of the use of the library. So, our capstone team built a chrome browser extension that suggests UVA library's books and resources to patrons (who have installed the extension) while shopping on other sites. The expansion will look over the webpages and search for keywords like ISBN, product name, and suggests the relevant resources that are available in the UVA library in a clickable popup bar at the top of the browser. Moreover, the extension provides functionality to quickly search for resources through different search modes for a variety of content. Upon clicking on the suggested resources, the user will be redirected to the particular resource page containing information like availability, location of the library, and even online access to selected resources. Overall, it aims to increase the use of the library resources by subtly pointing users toward freely available resources while they are browsing on various e-commerce sites.

My technical topic was about building a technology to influence more people to use library resources, whereas my STS topic is about understanding how the use of decision-aid technology has impacted various groups and individuals associated with soccer. It also discusses the role of stakeholders such as national and international soccer organizations in defining the uses of the technology. Since soccer is the most popular sport in the world, significantly changing the rules of the game without taking public opinions and comprehensive testing is very risky. It can lead to a decrease in the popularity of the sport, so it is crucial to consider the impact of these technologies on various individuals and groups. Technological momentum is used to analyze this problem. Multiple phases of the decision-aid technologies system are analyzed to understand its influence in the soccer community of players, fans, and other stakeholders. Moreover, this framework is also used to know how the magnitude and the direction of influence change over periods between the technology and the community. A lot of published statistics, fan surveys, and newspaper articles are used to support the arguments in the research paper. All this information is also used to understand the perspective of various stakeholders on the technology and analyze the impacts the technologies are having on them. Based on the findings from surveys and case studies, positive and negative aspects of the current implementation of the decision-aid technology are identified, and potential improvements are suggested.