

PhD Literature Review

Jonathan Carlton

School of Computer Science
University of Manchester

`jonathan.carlton@postgrad.manchester.ac.uk`

1 Introduction

2 Interaction

In [Atterer et al., 2006] a monitoring system for web-based interactions is defined – called UsaProxy. By requesting the users of the system to re-route all of their connections through a proxy server, HTML pages are modified with JavaScript tracking code before they are delivered to the user. The code collects data on mouse movements, keyboard input, along with other, fine-grained interaction metrics.

The capture solution presented above, in [Atterer et al., 2006] is modified in [Apaolaza et al., 2015] to allow deployment by adding JavaScript code to the web pages rather than requiring users to set their browser to re-route all connections through a proxy server. Data; low-level mouse movements, clicks, and keystrokes, in this experiment are recorded from a high-traffic website continuously for two years. They find that users, rather than interacting with the website quicker as they become more familiar, have increased periods of mouse inactivity. Continually, the users also spend more time on the website as they become more familiar. And finally, they find that there is no need to collect specific information about users, such as any disabilities they may have, as their problems can be identified through emerging behaviours in the experiments [Apaolaza et al., 2013].

3 Engagement

4 Sequential Data Mining (plus others(?))

References

- Apaolaza et al., 2013. Apaolaza, A., Harper, S., and Jay, C. (2013). Understanding users in the wild. In *Proceedings of the 10th International Cross-Disciplinary Conference on Web Accessibility*, page 13. ACM.
- Apaolaza et al., 2015. Apaolaza, A., Harper, S., and Jay, C. (2015). Longitudinal analysis of low-level web interaction through micro behaviours. In *Proceedings of the 26th ACM Conference on Hypertext & Social Media*, pages 337–340. ACM.

Atterer et al., 2006. Atterer, R., Wnuk, M., and Schmidt, A. (2006). Knowing the user's every move: user activity tracking for website usability evaluation and implicit interaction. In *Proceedings of the 15th international conference on World Wide Web*, pages 203–212. ACM.