

User Feedback in User/Domain Modelling and Adaptive Evaluation

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User and domain models are essential components of adaptive web-based systems, as well as the evaluation of such systems. In our research, we focus on user feedback used as a source for user and domain modelling, specifically on the tabbed browsing (also called parallel browsing). We also work on adaptive evaluation of adaptive web-based systems.

The tabbing is currently established as a more accurate representation of user browsing activities than the previous linear model [1]. We model the user tabbing behaviour from events sourced from a browser agent (extension) or scripts included in a page, recognizing sequences of events (e.g., pageload of a page P with referrer R, not preceded by page unload of R, and followed by blur of R, focus of P) as user actions (e.g., the user has opened the link in a new tab, then switched to it) [2]. From these actions, we discover *tabbing scenarios* (e.g., keeping a tab opened as a reminder) modelled after *reasons for using tabs* [3]. Various tabbing scenarios in which the tab participates are tracked per each tab during its life, effectively putting opened tabs into groups with various current or future levels of user's interest and various user tasks and goals. These data serve as basis for stereotype-based user model of tab scenarios usage and overlay user model of interests, as well source of relations for domain model augmentation.

Another area of our research is the user-centred evaluation of adaptive web-based systems. We ask evaluation questions (EQs) during the user's typical work in the system. The questions are adapted for the user and their actions and are asked at appropriate moments using the evaluation engine. In this way, evaluation feedback is collected even from users who otherwise would not actively seek to provide the feedback, e.g., in post-session questionnaire, and moreover the data is more accurate as the users are asked and they answer right when they are working with relevant parts of the system.

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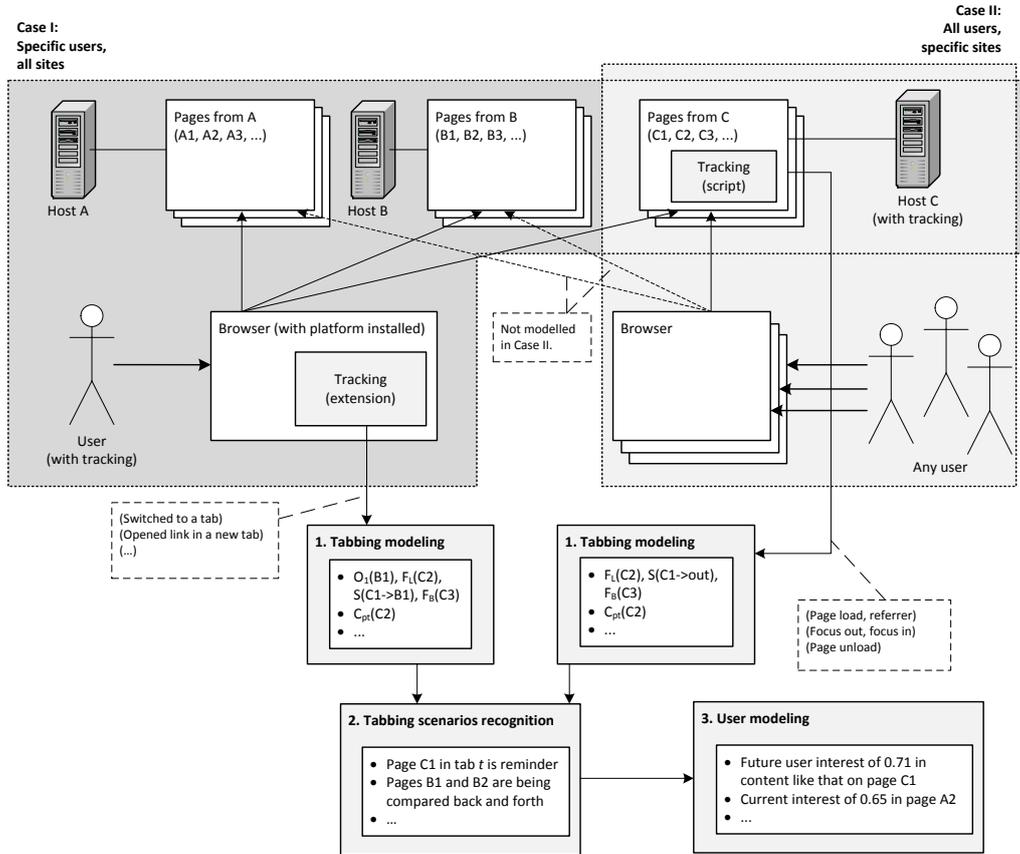


Figure 1. Overview of our user modelling method based on tabbing behaviour of the users.

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References

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