



Modeling the navigation on enrolment web information area of a university using machine learning techniques*

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Abstract—This work analyses the navigation in the enrolment web information area of the University of the Basque Country. A complete data mining process shows that successful and failure navigation behaviors can be modeled using machine learning techniques. Unsupervised learning algorithms have been applied on two different domains: URLs visited by the users in each session (navigation sequence) and some interaction parameters extracted from the recorded click-stream (navigation style). Both domains have been used satisfactorily to model the behavior of success and failure navigation sessions achieving more than 78 % of accuracy predicting success or failure sessions. Furthermore, the clustering based on the navigation style was able to identify the main characteristics of each type of session and to build a subsystem that enables to detect failure type sessions with high precision.

Index Terms—Web Usage Mining, Navigation Models, Web Interaction Characterization