The bX project: Federating and mining usage logs from linking servers

Johan Bollen (LANL), Oren Beit-Arie (Ex Libris) and Herbert Van de Sompel (LANL)

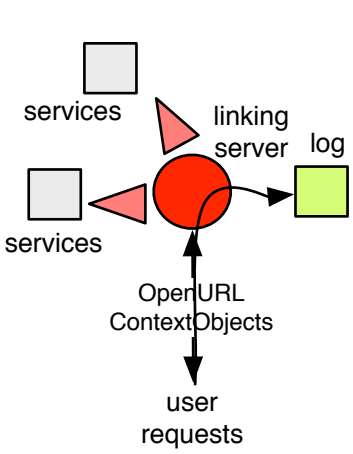

Fig. 2: Linking servers store OpenURL ContextObject logs.

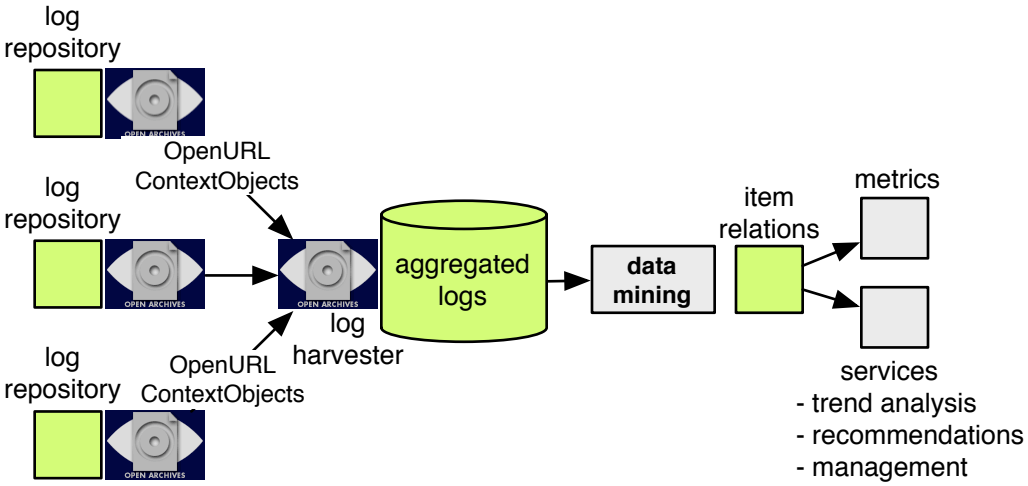

Fig. 3: System architecture for the federating and mining of usage logs.

RESULTS: In collaboration with Ex Libris and CalState, the bX project has recently worked on aggregated usage data collected at over 20 academic institutions using the SFX link resolver. The particular data set, recorded in Nov. 2004 to Aug. 2005, concerns 167,204 individuals and 3,507,484 accesses. The collected usage data was analyzed with two principal objectives in mind. First, we analyzed the aggregated usage data resulting in the generation of quality indicators of scholarly communication items. Second, we prototyped a recommender service aimed at assisting the user in discovering related resources. Fig. 4. shows a mapping of science domains as produced from 2004-2005 LANL usage data. Fig. 5. shows a comparison of usage PageRank at CalState to the 2003 ISI IFs indicating significant overlap but interesting deviations. Our presentation will discuss promising results in both the area of science metrics and recommender systems.

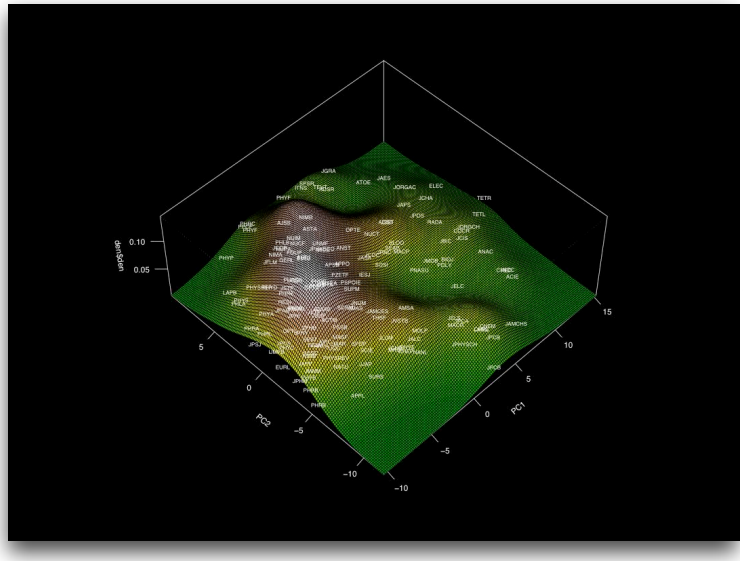

Fig. 4: Usage landscape reveals interdisciplinary clusters of research interests

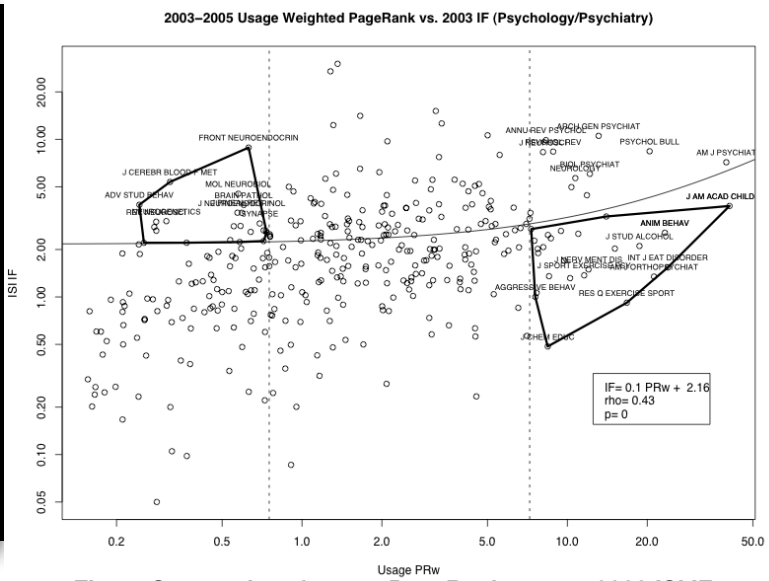

Fig. 5: Scatterplot of usage PageRank versus 2003 ISI IF