

An analysis of Internet ratings data

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Internet ratings data are everywhere and increasing rapidly. They are usually ordinal measurements from 1 to 5 or 1 to 10 rated by Internet users on the quality of all kinds of items; for example, movies, books, etc. The graphical displays of the ratings data have little change over the past years, and the traditional displays does not account for the inter-rater difference. To address this problem, Ho and Quinn (2008) proposed a model-based graphical display. However, in order to identify the model, certain parameters are constrained to be positive. In the present work we first show that such a restriction may have a great impact on the rankings of items. Then we addressed some issues concerning the estimation of model parameters. Two real data sets are used for illustration.

Key Words: Ordinal item response; posterior distribution; ranking.