

DOCTORAL THESIS

From on-air to online: an integrated framework for television viewership prediction

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ABSTRACT

The unprecedented expansion of online video has dramatically changed patterns of media consumption. More and more viewers are watching serialized drama on television across multiple digital television platforms, leading advertisers to leverage multiple channels for buying and television broadcasters to refine forecasting models for near-term television ratings of program content to provide more accurate and timelier predictions. Using traditional television ratings prediction methods with data from a single source is no longer appropriate. An integrated television ratings model incorporating data from multiple sources is proposed in this study to tackle the complexities of the consumption of television content by today's audiences in a multi-platform television environment. Using 611 episodes from 26 unique local drama serials aired in prime-time slots from December 2014 to August 2016, with viewership data obtained from traditional television and catch-up television platforms and associated online word of mouth (WOM) data from a popular local social media site, I tested five hypotheses derived from the theories of status quo bias, the Zeigarnik effect and the WOM effect. The dataset was subjected to regression analysis, and the results supported four of the five hypotheses with following findings. First, significant relationships were found between the television ratings of a drama serial episode, the ratings of its preceding episode, the volume of WOM and online catch-up viewing. Second, viewership via the online catch-up television platform complemented rather than cannibalized viewership of a subsequent episode of a prime-time television drama broadcast on traditional television, with a positive impact on television ratings.

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