Abstract: Multi-domain News Recommender Systems at Globo: Challenges, Approaches and Evaluation Metrics⋆

Joel Pinho Lucas*1,†*, Leticia Freire de Figueiredo*1,†* and Felipe Alves Ferreira*1,†*

1Globo, Rio de Janeiro, RJ, Brazil

Abstract

Grupo Globo is the largest Latin American mass media group, its vertical information portals reach 100 million unique daily users. Such portals publish thousands of news articles and videos every day. Each portal within Globo is subjected to a specific stakeholder responsible for a domain subject (i.e. sports, entertainment, news, etc.). In this context, recommender systems play an essential role in achieving a good user experience and offering personalized content. One of the challenges associated with a large and diverse content catalog is to show relevant content to its users, who are also diverse in terms of engagement and the type of content they consume. In addition, the scenario and observed metrics might change depending on the portal domain. We will share the drawbacks addressed by recommendation strategies (both item and user-based) built by combining different algorithm families, which are determined according to the challenges related to the domain scenario, discussing how such strategies are evaluated within a development environment supported by an experimentation culture. In our context, recommendation metrics and quality are highly impacted by the short lifetime of new items. In this way, we adopted a Near-Real time based ingest solution, enabling our models to run in minutes. In this sense, we will share how and which metrics have been tracked along with stakeholders in order to platform enhancements with business key results.

Keywords
News Recommender Systems, Cold-Start, Near Real-Time Ingestion, Evaluation Metrics, Multi-Stakeholder,