



CPN project

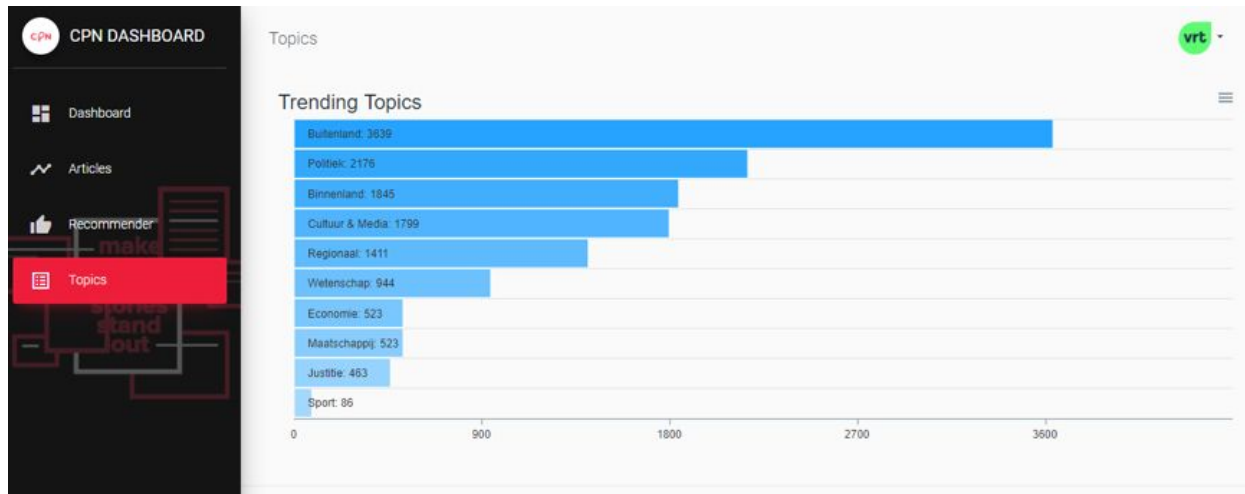
The Content Personalisation Network (CPN) is working on building a new, trustworthy approach to personalise digital content. The CPN project takes up the challenge of developing a new approach to personalise the daily news offer, allowing both large and small media companies to better target their content to media consumers. Our aim is to innovate how content creators are able to structure content production, distribution and in-depth interaction with audiences. Therefore, we developed a virtual open platform (with reference architecture) where on the one hand, media professionals are able to receive faster and more targeted cross-channel news and information distribution solutions, and on the other hand, users are able to experience more attractive and engaging news and information.

Throughout the duration of the project, we will iteratively test and validate the solution in real-life environments in different countries (Belgium, Germany, Cyprus and Italy) by setting up large scale pilots. Thanks to the feedback from our testers, end users and professional users, CPN will be able to improve and update the app and its recommendation software.

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Producer's app

The Producer's Dashboard UI provides analytics on the data collected, and allows for an easy integration into the producer's workflow. The prototype allows you to set an article as "breaking news". It also provides contract templates to allow freelancers to easily work together and with editors, to define and track the scope of individual contributions and to determine the expected revenues.



Screenshot of the CPN producers' dashboard UI

Recommender

The **CPN recommender system** is a core module that computes the most suitable news recommendations for CPN users. It analyses the users' profiles and collects news to find the most "interesting" news items to be proposed by the app.

This module is built with a hybrid approach that uses variable proportions of content-based and collaborative filtering techniques for learning from explicit and implicit feedback given by the users themselves: clicks, ratings, sharing, etc. The system is customizable for including content-delivery strategies' optimization: multichannel and date/time optimization (predicting the probability of interests at a given time on a given channel) and includes mechanisms for fostering "serendipitous" discoveries.

We provide an overview of the **input data** that the CPN software uses to personalise news content below:

- **Collaborative filtering:** a method of making predictions (filtering) about the interests of a user by collecting preferences or taste information from many users (collaborating) i.e., click and usage data (who reads which article and when).
- **Content-based filtering:** recommends the items based on a comparison between the content of the items and a user profile. The content of each item is represented as a set of descriptors or terms, typically the words that occur in a document, or higher-level representations. The user profile is represented with the same terms and built up by analyzing the content of items which have been seen by the user.

Project partners

