
Learn how Serial Metrics built the Atypon article recommendation engine

## WHEN 2 MILLION ARTICLES ARE TOO MANY

Atypon, an enterprise technology company, based in Silicon Valley, delivers libraries and academic institutions an electronic publishing platform.

Atypon hosts more than 17 million journal articles, 100,000 eBooks, and many other types of scientific and scholarly content for leading publishers worldwide.

The company was in search of a reliable way to improve audience engagement by allowing readers to discover new, relevant, content.

# PERSONALIZE CONTENT DISCOVERY

Imagine visiting a site and being offered the exact product you want, without having to search for it.  Imagine simply discovering content.

A recommendation engine can filter content for users by predicting how a user might rate the content. It solves the problem of connecting individual users with the right content when there is a large inventory from which to choose.

Atypon used Serial Metrics to build a recommendation system for surfacing the most individually relevant content to users.

This system was able to take 2 million articles and 100,000 users and curate a set of 25 articles for each of the 100,000 users.

## START WITH A LIST OF ARTICLES, AND THEIR CONTENTS

Serial Metrics ingested 2 million articles, including their contents, and stored the data in our database. The data were then cleaned, normalized and readied for subsequent analysis phase.


## ASSIGN TOPICS TO EACH ARTICLE

Serial Metrics created a topic modeling framework to 'read' and infer the theme of each document, just as a human would, then labeled documents according to their respective topics.


## BUILD A RECOMMENDATION SYSTEM

The next step was to cluster articles by topic. Then, using a fraction of the users' reading history, we estimated the likelihood users would 'like' respective article topics. High-scoring articles we surfaced as 'recommendations'.


## PRODUCTION CODE

The final result: a server-side application that ingests new articles, assigns topics, makes recommendations, and learns about changes in users behavior. To ensure speed and scalability, the system we built was written in C++.

## BOTTOM LINE

Serial Metrics created significant lift in user engagement rate (85%) by surfacing personalized, curated articles to users on the Atypon platform.

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