

# New IT tool predicts book sales prior to publication

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In Granada, researchers have developed a new IT system that predicts the volume of sales a book will have if it is finally published. This information will be of great value to publishers, who could use it to decide on the print run. The new tool, called PreTEL, is based on artificial neural networks and it can make statistical simulations of book launches and print runs that could help decide whether a book should be published or not.

The project has been developed by researchers Pedro Ángel Castillo-Valdivieso, Juan Julián Merelo-Guervós and Antonio Miguel Mora-García—who belong to GeNeura, a University of Granada research group—in collaboration with a local company—PRM Consultores S.C.A.—which will undertake to exploit the project's results.

As lecturer Pedro Castillo-Valdivieso explains, "this system first learns, considering data on thousands of already published books and thus obtaining a [mathematical model](#) capable of making estimates with a specific probability". It starts from a knowledge base of publication print runs that is constantly being updated and extended. PreTEL works by generating a data estimation model that can, after the learning phase, interpret the values of a new book so as to offer data on the estimated print run and sales.

## Artificial intelligence

These models can be generated in different ways. Currently, the most common methods use artificial neural networks, [logistic regression](#), decision tree models and ARIMA type models. "All these methods based on [artificial intelligence](#) can learn and adapt so if in the future new data become available, they can be re-trained to correct themselves and improve the results of predictions", says Dr Castillo-Valdivieso.

Thus, the greater the knowledge base in terms of the number of books it holds, the better we can expect the prediction-making model to be, and the better the quality of its estimates.

Finally, given that there are other external variables, which are not usually stored or measured during the sales process (things like the economic situation, literary fashions, the interest in non-fictional themes, the author's reputation, etc.) and do not form part of the knowledge base, they are used to weight the results of the predictive model's estimates as if they were user evaluations.

Provided by University of Granada

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