Data science approaches to support the design of crowdfunding campaigns

Rosa Porro

Department of Computer Science, University of Bari Aldo Moro, Bari, Italy

Crowdfunding is financing a business project or social cause through small contributions from many individuals. It is increasingly popular and a viable alternative to bank loans, venture capital firms, or angel investors [1]. Crowdfunding attracts individuals (the crowd) who fund projects with even tiny amounts, offering equity shares, interest payments, future products/services, or non-monetary rewards. Entrepreneurs connect with the crowd through dedicated online fundraising platforms. They present their projects, allowing potential funders to read business ideas, get information, and make investment decisions. Successful campaigns depend on factors like identity/community, communication quality, social capital, and trust in the entrepreneur. Existing research focuses on predicting campaign success by analyzing project characteristics, investor sentiment analysis, and language (e.g., [2]). However, the dynamics of crowdfunding platforms remain understudied. This project aims to explore ways to help creators choose the right platform, given the exponential growth of options. Computational solutions that analyze and suggest platforms based on project characteristics can save time, money and enhance success. Such computational tools have two key roles. Firstly, creators can easily distinguish among platforms, making informed choices. Secondly, platform administrators can identify weaknesses and improve services. To this end, data science and machine learning solutions can help, offering a greater chance of success. In conclusion, crowdfunding is an increasingly popular method of financing, relying on small contributions. Online platforms facilitate connections between entrepreneurs and funders, with various factors influencing campaign success. This research addresses the challenge of platform selection by proposing computational solutions.

References

[1] L. B. Junge, I. C. Laursen, K. R. Nielsen, Choosing crowdfunding: Why do entrepreneurs choose to engage in crowdfunding?, Technovation 111 (2022) 102385.
[2] S. J. Blanchard, T. J. Noseworthy, E. Pancer, M. Poole, Extracting Image Characteristics to Predict Crowdfunding Success, arXiv (2022). URL: https://arxiv.org/abs/2203.14806. doi:10.48550/ARXIV.2203.14806.