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## A MACHINE LEARNING APPROACH TO IDENTIFY HIGHER EDUCATION INSTITUTIONS' SOCIAL MEDIA PUBLICATION STRATEGIES

In the competitive landscape of higher education, institutions use international rankings to secure funding, attract talent, and enhance their global reputation. At the same time, they leverage social media to boost recognition and engagement. This study examines the relationship between Higher Education Institutions' (HEIs) rankings and their social media posting strategies. Analyzing tweets from 18 HEIs in a consolidated ranking system, we identified four distinct clusters based on posting strategies, aligning with three ranking tiers: high, moderate, or low. Posts were categorized into five topics—engagement, research, image, society, and education—and an LSTM model successfully predicted social media activity, revealing clear patterns. Our findings suggest a connection between social media engagement and HEI prestige.

## **SPEAKER**

## ÁLVARO FIGUEIRA FACULDADE DE CIÊNCIAS DA UNIVERSIDADE DO PORTO



Álvaro Figueira graduated in 1995 with a degree in Applied Mathematics and Computer Science from the Faculty of Sciences, University of Porto. He earned his MSc in Foundations of Advanced Information Technology from Imperial College London in 1997, followed by a Ph.D. in Computer Science from the University of Porto in 2004. Currently, Prof. Figueira is an Assistant Professor with tenure at the Faculty of Sciences, University of Porto. His research focuses on disinformation detection, automatic social media analysis, and data visualization. He is a researcher at the CRACS/INESCTEC research unit, where he has led several international projects. These projects have involved collaboration with institutions such as the University of Texas at Austin, the University of Porto, the University of Coimbra, and the University of Aveiro, focusing on information extraction from social networks and analysis using machine learning and other artificial intelligence techniques.

