Data driven business development

an AI tool developed from practice





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The why

- Maastricht is a renowned destination for big conferences, exhibitions, and events from organizations worldwide. Our ability to attract and host successful events is crucial to our reputation and business growth.
- However, in this dynamic industry, it is becoming increasingly challenging to identify organizations that align perfectly with our cities DNA and audience preferences.
- That's why we developed and implemented an advanced event database and analysis framework that will enable us to make data-driven decisions, enhance event selection, and provide a personalized experience for our clients.
- Identifying patterns, correlations and connections between host-cities.
- Gain insights and uncover meaningful trends in the data.



The how

- Data collection and analysis process:
 - utilized the ICCA database;
 - focused on conferences won, lost and/or organized in the last 20 years;
 - extracted: conference subjects, cities-countries previously host the same conferences.
- Bid guidelines analysis
- Organization profile analysis





Data collection and analysis process - results





Top Connections between Maastricht and correlated cities



Cities by subject





Bid guidelines analysis

- With the background of our city comparison and by processing the language in bid guidelines, we created predictive models to assess bid success. We use a pretrained model and provide it with examples of confirmed and rejected bids
- Model Selection: We trained and tested different nlp models
- Model Fine-Tuning: We fine-tuned the chosen model to recognize patterns associated with successful or unsuccessful bids.
- Once the model is trained, we can input new bid guidelines, and it predicts whether the bid is likely to be successful or not.



Bid guidelines analysis

• Top Ranked Cities

We identified the most commonly subjects in top-correlated cities with Maastricht.

Potential Organisations

We searched for conferences on these subjects hosted in other cities, excluding Maastricht.

• Bid Guideline Extraction

We extracted bid guidelines from conferences held in these cities for further analysis.

• Predictive Analysis

Based on the trained model, we made predictions on bid success for these extracted guidelines.

Recommendations

Our findings provide valuable insights into bid strategies, enabling more informed decisions for MECC's conference tendering process.



Organization profile analysis

- Build a second model using organization profiles
- Implement the same data
 - Motivation
 - provide additional information about the organizations beyond bid guidelines.
 - offer deeper insights into their potential interest in hosting conferences at MECC.
 - using two different input sources, bid guidelines and organization profiles, aimed to validate the predictions obtained.
- Cross-validation in strengthening the reliability of the results.



Organization profile analysis





The input

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Conference Prediction App

 Upload RFP:

 Επιλογή αρχείου
 International Conferenc... Internet Researchers.txt

 Upload Profile:

 Επιλογή αρχείου
 International Conferenc... Internet Researchers.txt

 City 1:

 Athens

 City 2:

 Paris

 City 3:

The prediction separate RFP/ Profile

Previous Predictions (RFP):

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 1.
 File: Combustion Institute (CI).pdf | Prediction: Confirmed | Percentage: 69.79%

 2.
 File: Company International Association for Computational Mechanics (IACM).txt | Prediction: Rejected | Percentage: 46.8%

 3.
 File: SMB.txt | Prediction: Rejected | Percentage: 43.42%

 4.
 File: ACM-CCS-proposal-guidelines.pdf | Prediction: Rejected | Percentage: 38.85%

 5.
 File: International Conference for Internet Researchers.txt | Prediction: Rejected | Percentage: 28.87%

 6.
 File: Pangborn Sensory Science Symposium.txt | Prediction: Rejected | Percentage: 25.42%

Previous Predictions (Profile):

I. File: Combustion Institute (CI) prof.txt | Prediction: Confirmed | Percentage: 82.9%

File: ACM-CSS.txt | Prediction: Confirmed | Percentage: 75.96%

File: SMB.txt | Prediction: Confirmed | Percentage: 70.39%

4. File: International Conference for Internet Researchers.txt | Prediction: Confirmed |

Percentage: 69.96%

5. File: Pangborn Sensory Science Symposium.txt | Prediction: Confirmed | Percentage: 69.72%

The predication combined

Previous Predictions (Combined):

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 File (RFP): Combustion Institute (CI).pdf | File (Profile): Combustion Institute (CI) prof.txt | RFP Prediction: Confirmed | Profile Prediction: Confirmed | Average Percentage: 76.34%
 File (RFP): ACM-CCS-proposal-guidelines.pdf | File (Profile): ACM-CSS.txt | RFP Prediction: Rejected | Profile Prediction: Confirmed | Average Percentage: 57.41%
 File (RFP): SMP trt | File (Profile): SMP trt | PED Prediction: Print Prediction:

3. File (RFP): SMB.txt | File (Profile): SMB.txt | RFP Prediction: Rejected | Profile Prediction: Confirmed | Average Percentage: 56.91%

 File (RFP): Company International Association for Computational Mechanics (IACM).txt | File (Profile): International Association for Computational Mechanics (IACM).txt | RFP Prediction: Rejected | Profile Prediction: Confirmed | Average Percentage: 53.71%

 File (RFP): International Conference for Internet Researchers.txt | File (Profile): International Conference for Internet Researchers.txt | RFP Prediction: Rejected | Profile Prediction: Confirmed | Average Percentage: 49.41%

 File (RFP): Pangborn Sensory Science Symposium.txt | File (Profile): Pangborn Sensory Science Symposium.txt | RFP Prediction: Rejected | Profile Prediction: Confirmed | Average Percentage: 47.57%

Additional outcome



Potential other implications of the tool...



Muchos Gracias

Questions?