

ERASMUS+: Employability in Programme Development (EPD) Project

Erasmus+ Programme, Key Action 2: Strategic Partnerships (agreement number 2020-1-UK01-KA203-079171)

Intellectual Output: 103

Intellectual Output title: Prototype Employability Dashboard

Document title: evaluation reports setting out a user perspective on the lessons learned from the MVPs

Contributing authors: ^{IJ}Johan Loeckx, ^{II}Corneliu Cofaru

Author affiliation: ^{II}Vrije Universiteit Brussel (VUB)









Evaluation reports setting out a user perspective on the lessons learned from the MVPs

Johan Loeckx, Corneliu Cofaru Artificial Intelligence Laboratory Vrije Universiteit Brussel

Feedback on dashboard #1 - "insight engine"

The first dashboard's target audience was the various stakeholders involved in employability. The feedback collected was hampered due to the difficulties of reaching out to external stakeholders. They found it hard to make time for a project that did not have a direct return. However, we had many informal conversations with potential end-users during the project. The feedback below is a summary of their perspective.

- Academic researchers acknowledged the need to have better coverage of literature, from different perspectives, including grey literature, whitepapers, government and policy reports and datasets. They remarked, however, that a lot of knowledge is not written up, but locked inside the heads of practitioners. They were actively involved in the design of the prototype, notably in defining the *data schema* and criteria that needed to be recorded for facilitating search in the multi-disciplinary employability
- Small and medium business owners were not particularly interested, as employability in itself is not a main field of interest. However, they need actionable advice, adapted to their context, locality, business and role they are hiring.
- The **quality assurance agency** AQU, partner of the project, was particularly interested in this kind of technology, as they need to be up to date on what is moving within the field and translate it into insight that they can relay to their members. They expressed the desire to extract relevant insights automatically.

Feedback on dashboard #2 - "knowledge-driven prompt system"

A more specialized target audience of data analysts that wish to use AI to extract more value out of their data was addressed. We will summarize the feedback received during the last multiplier event.

Overall, the reception of the tools was positive, and it led to discussions on their usage and applicability. However, there were some remarks on the delivery. It was noted that the demos, videos, and explanations were too technical – or, conversely, the audience lacked the technical tools to grasp the full impact and usefulness of the technology (which is a common problem in AI). A suggestion that was brough forward, was that usage examples in real employability scenarios would have brought a better understanding of how such tools can be employed.

The feedback was highly valuable as it provided us with both a novel critical perspective, as well as interesting avenues for future developments:

• **Employability data expert from AQU.** The final user of the prompt-system was involved in the creation of the dashboard. He wanted to point out mainly that, to *make such a system work*, a lot of

preparatory work needs to be done by the user. For example, the configuration needs to be adapted to the specific databases. This, in turn, requires quite some sessions between the domain expert and the AI specialist, to explain the meaning and relations between the data. However, the resulting system was considered to have a very high potential in improving the decision making at employability-related centres.

- We also received feedback from a **professor** in the field of employability, which found that the search engine can provide value with its incremental query building capabilities. Some improvements were suggested, like saving searches (per user), having user specificity (i.e., customization and query/answer learning). He also pointed out the risk of "optimally" adapting the search engine to the audience, leading to potential echo chamber effects.
- A **PhD Student** noted that a comparison with other tools would have been interesting in showcasing the advantages of our approaches (for search engine). He also had some difficulties understanding the purpose of the tool and in which setting it should be used. For example, how would they be used by a single team with multiple actor types, multiple teams etc. Details such as sharing knowledge, references, experiments were not detailed even though touted as aims of the tools.
- A clinical psychologist mentioned it would be interesting (from a researcher's perspective) if the Dashboard could be able to reproduce analyses from research papers so that when doing research, one would be able to analyse and compare research results.
- A statistician pointed out that the presentation of the tools was too technical for the audience (the structure and technical knowledge of the audience was not entirely known in advance) and that when presenting AI-based tools, interpretation from a non-technical audience can be useful in understanding their purpose
- A **civil engineer** in the audience found the format of the presentation very original (hand drawing), but remarked that an implementation of the Analytics Dashboard that would handle more statistical questions would have helped in better understanding the capabilities of the system
- Finally, another **professor** could not find or see a direct application of the tools, but figured the Analytics Dashboard could be used by students to explore sharing statistical analyses and explore hypotheses