

Development of the Link4Skills Navigator Prototype

Summary

November 2024

<http://link4skills.eu/>



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Status report on development of the Link4Skills Navigator

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Summary

The Link4Skills Navigator is a state-of-the-art platform developed by the Link4Skills project to help tackle skill shortages and migration challenges across global labour markets. By focusing on evidence-based policymaking, it supports stakeholders in Europe, Africa, Asia, and the Americas with tailored tools for data analysis, visualization, and dissemination.

Key Features and Functionalities

At its core, the Navigator is a knowledge-based expert system that combines robust data analytics with a user-friendly interface. Its features include:

- 1. Interactive Dashboards**
Users can create and customize dashboards, visualizing data through maps, charts, and tables
- 2. AI-Driven Assistance**
A chatbot interface offers contextualized support, answering questions with real-time insights derived from integrated datasets
- 3. Data Exploration and Visualization**
Advanced filtering and export options enable users to tailor analyses for reports and presentations
- 4. Migration Corridor Analysis**
Interactive maps showcase migration flows, policy impacts, and skill dynamics across regions.

Development Approach

The Navigator's design adheres to Agile methodologies and participatory principles, ensuring alignment with the needs of its diverse user base, including policymakers, vocational training institutions, and employers' organizations. Initial prototypes were created using Figma, allowing iterative improvements based on stakeholder feedback. Over 250 user stories, gathered through extensive interviews and workshops, informed the development process, ensuring the inclusion of essential functionalities such as data customization, real-time analytics, and chatbot support.

Target Users and Applications

The Navigator is designed to empower EU decision-makers, recruiters, and training providers with actionable insights. It addresses critical challenges, such as skill shortages, workforce planning, and equitable migration policies, by providing:

- **Tailored Recommendations:** Identify skill gaps and formulate strategies for upskilling, reskilling, and workforce development.
- **Policy Support:** Develop evidence-based policies through comprehensive analysis of migration patterns and labour market trends.
- **Enhanced Communication:** Share insights effectively through customizable visualizations and report-generation tools.

Ontology and Data Structure

The Navigator is underpinned by a sophisticated ontology and glossary, standardizing terms and relationships across datasets. This ensures consistent data interpretation and enhances interoperability. The platform adheres to FAIR (Findable, Accessible, Interoperable, and Reusable) data principles, ensuring that stakeholders can seamlessly access and utilize the information.

Future Development

The current low-fidelity prototype includes essential functionalities, with plans to expand capabilities further. Upcoming versions aim to integrate additional datasets, enhance chatbot functionalities (e.g., generating SQL queries for database access), and refine user experience. Testing with end-users will validate these advancements, ensuring their alignment with practical needs. Future updates will also focus on automation, skills partnerships, and sustainable labour market strategies. A functional high-fidelity prototype should be available for testing by the end of 2025. It will be made accessible on the Link4Skills website

By combining cutting-edge AI technologies with participatory design, the Link4Skills Navigator stands as a transformative tool for addressing global skill shortages and fostering sustainable migration policies. It enables users to navigate complex data landscapes with ease, ensuring informed decision-making and collaborative solutions for labour market challenges.

The full report is available [here](#).

https://link4skills.eu/wp-content/uploads/2024/12/L4S_Navigator_mock-up-paper-20.11.2024.pdf