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The UPSKILLS project

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CLARIN ERIC

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Overview of the UPSKILLS project by **Iulianna van der Lek**

Hands-on activity by **Francesca Frontini**

*UPgrading the **SKILLS** of **Linguistics** and **Language Students***

An Erasmus+ strategic partnership
September 2020 - August 2023

1 University of Malta (coordinator)	6 University of Rijeka
2 University of Belgrade	
3 University of Bologna	and with funding from Movetia:
4 CLARIN ERIC	7 University of Geneva
5 University of Graz	8 University of Zurich

Aims



Why?

A gap between the knowledge and skills (typically) acquired at universities and those (commonly) required by the labour market

How?

Four intellectual outputs:

- IO1 – Needs analysis
- IO2 – Best practices for research-based teaching
- IO3 – Learning content creation
- IO4 – Incorporation of content into educational games

What?

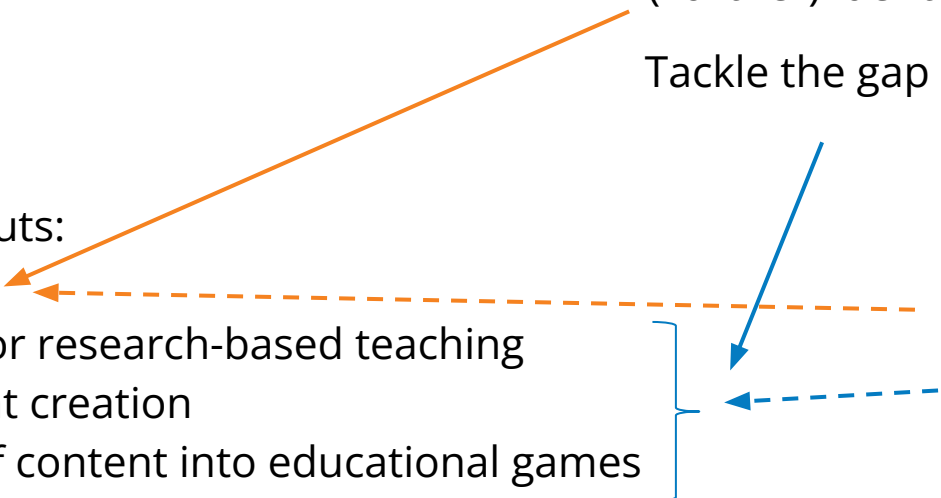
(Further) identify the gap

Tackle the gap

When?

Completed

Ongoing



UPSKILLS Needs Analysis

Overall objective: Exploring the gap between the knowledge and skills (typically) acquired at universities and those (commonly) required by the labour market

Six components:

1. A survey of curricula
2. A literature review
3. A corpus-based analysis of job advertisements
4. A questionnaire for the language industry
5. Interviews with industry representatives
6. A new profile for language and linguistics students

Language Data and Project Specialist

- knowledge, skills and competences -

DISCIPLINARY

- Knowledge of specific languages
- Ability to conduct linguistic analysis
- Translation, interpreting, post-editing, localisation

(INTER)CULTURAL

- Awareness of specific cultural contexts and cultural differences
- Cultural agility

TRANSVERSAL

- Creative and innovative thinking
- Problem-solving skills
- Presentation skills
- Writing for different audiences



TECHNICAL

- Understanding and use of language technologies and resources
- Understanding of computational linguistics / NLP
- Knowledge of a programming language

DATA-ORIENTED

- Ability to collect, manage, curate, analyse language data
- Knowledge of statistics
- Familiarity with data standards

RESEARCH-ORIENTED

- Knowledge of research design
- Analytical, logical and hypothetical thinking
- Accessing and processing information critically

ORGANISATIONAL

- Entrepreneurship
- Project management
- Quality control
- Planning
- Teamwork

Language data and project specialist

- typical tasks and responsibilities -

Linguistic data collection

Transcription of audio files

Linguistic annotation

Language data exploration
and analysis

**DATA-
ORIENTED**

TECHNICAL



Translation, interpreting,
localisation, post-editing

Development, analysis and testing
of software and technological tools

Development, testing and
improvement of machine
learning models

Language data research

Research on business processes
and market needs

**RESEARCH-
ORIENTED**

ORGANISATIONAL

Communication with teams,
clients and/or vendors

Project management

Process evaluation

Needs Analysis Reports

1.1 Survey of curricula: Linguistics and language-related degrees in Europe

1.2 Toward a new profile for twenty-first century language specialists: Industry, institutional and academic insights

1.3 Competences, skills and tasks in today's jobs for linguists: Evidence from a corpus of job advertisements

1.4 Survey of business sectors hiring linguists and language professionals

1.5 Graduate skills and employability: Focus interviews with selected job market stakeholders

1.6 Language data and project specialist: A new modular profile for graduates in language-related disciplines

UPSKILLS Learning Content

COMING FALL 2022!

3-6 ECTS block units in Moodle with mix-and-match activities

RESEARCH SKILLS

Introduction to scientific research
Analytical thinking and problem solving
Project management

DATA HANDLING SKILLS

Introduction to machine learning
Data standards and repositories
Language data science



DATA ACQUISITION SKILLS

Introduction to programming
Text and speech processing
Collecting data from human participants

CROSS-CUTTING COMPONENTS

Linguistic theory
Research management software

UPSKILLS Learning Content

Accessing the materials:

- All the content will be available on Moodle:
<https://upskills.fil.bg.ac.rs/>
- You will be able to export and import the courses
- To request a guest account, please contact **Nada Soldatić** at
nadja@fil.bg.ac.rs

Main Expected Results

- Prepare students for the reality of the job market
- Sensitise academics with respect to what skills employers are looking for
- Raise awareness among employers about the skills and aptitude of graduates of linguistics and language-related degrees
- Create engaging modular learning content that will be freely accessible to everyone
- Promote active- task- and research-based learning

Dissemination Events

Dissemination events planned for each intellectual output:

- [Bologna](#) ✓ , [Graz](#) ✓ , [Malta](#) ✓
- **Save the Dates:**
 - *Integrating Research and Research Infrastructures into Teaching*, Utrecht, 4 November 2022
 - Summer School in Serbia - July 2023

Today

- Course demo: *Introduction to Language Data: Standards and Repositories*.
- Hands-on activity: [Lesson 3.1 - How to Annotate Text Collections in WebLicht](#)

Introduction to Language Data: Standards and Repositories

Workload: 4-5 ECTS (estimation, needs to be piloted)

Target audience: BA, but also suitable for MA

By the end of this unit block, **learners will be able to:**

- Explain the main concepts related to research infrastructures for language resources and technology and the role they play in the research data lifecycle in the context of Open Science and FAIR
- Use certified research data repositories to search, find and access language resources and datasets
- Process, annotate, and analyse different types of corpora in online environments according to standards and formats used by the community
- Archive, share and cite language resources

Introduction to Language Data: Standards and Repositories

Unit 1 Introduction to Research Infrastructures of Language Resources and Technology

Unit 2 Finding, Accessing and Using Language Resources

Unit 3 Linguistic Processing, Annotation and Analysis

Unit 4 Archiving and Sharing Language Resources

Introduction to Language Data: Standards and Repositories

A few lessons (still under review, need piloting):

- [Lesson 2 - Intro to Research Infrastructures for Language Resources and Technology](#)
- [Lesson 2.2 - Finding Language Resources in the CLARIN Repositories](#)
- [Lesson 2.3 - How to Search within Collections of Resources](#)
- [Lesson 2.4 - How to Collect and Cite Language Resources from Data Catalogues](#)
- [Lesson 3.1 - How to Annotate Text Collections in WebLicht -> demo](#)

Feedback and Discussion

How does UPSKILLS and the piloted lessons fit into your curriculum?

- What did you find useful?
- How would you adapt the lessons?



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