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# Integrating industry-based research into teaching

Perspectives from industry  
and academia

3rd UPSKILLS Multiplier Event, Utrecht  
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# Integrating industry-based research into teaching

Lessons learnt (perspectives from industry and academia)

- Possible ways of integrating industry-based research into teaching
- Challenges and opportunities for academia
- Challenges and opportunities for industry
- How we are doing this in UPSKILLS
- Way forward

# Industry-based research projects

## How to start?

### Opportunistic:

Example 1: We had a visitor from the Directorate General of Translation of the EU Commission at the University of Malta

I asked her to give a **short presentation** of what they do and what problems they face

The students then worked on an **assignment** based on a task they provided, using their data (list of medical terms)

We then **gave back the results** of the systems the students created

Example 2: I was contacted by a company at a conference for a potential collaboration

We supervised a student jointly > resulted in a filing a patent

### Match making through a project:

In the UPSKILLS project, we have a team working on making a match between companies and lecturers

# Industry-based research projects

What are the possible formats?

Joint supervision of theses (one student, but strong commitment)

Student project as part of a course (several students, for ects credits)

Standalone internship (one student or more, usually paid)

...

Applied Master of AI @Idiap

(<https://www.idiap.ch/en/education/master-in-ai>)

# Perspectives from academia: **challenges**

It costs a lot of effort to talk to industry, define a task, get students ready for a particular task. Is it worth the effort?

What will a student get out of it, compared to the effort we need to put into the collaboration?

Will students be willing to do work without being paid? Or should I try to ask the company to pay the students? But what if they get ECTS for the task?

Are companies willing to try and define an interesting task for the students, or is their main aim to get the job done and may not care about what the students learn

But even if that is the case, isn't that what they might face when they go and work for industry anyway, so it is good to be prepared and see if they can change it

How do we get in touch with industry?

# Perspectives from academia: **opportunities**

We prepare students better for the job market > They know what to expect

They can mention this experience in their CVs > Might even get hired

It is interesting for students and lecturers to work with real data and real-world problems

We are creating links with industry, which is good for potential collaborations in the future ( joint research projects)

# Perspectives from industry: **challenges**

It costs a lot of resources to describe a task, prepare the data, get students ready for a particular task. Is it worth the effort?

How many hours of work will a student dedicate for the effort we need to put into the collaboration?

Timing: We often need a particular task done at a particular time. Academia is bound to certain schedules. Timing can be challenging. Need to find a task that is not urgent, but only nice to have

Can we remain in the same course with the same lecturer in subsequent years? That would mean less effort and easier planning

Students will need to work on our data and sometimes using our technology, this may raise issues of disclosure. They may need to sign an NDA

# Perspectives from industry: **opportunities**

We will get tasks done that we might not have the time to do ourselves

We might be able to have several students do the same task, in order to get some inter-annotator agreements, or e.g. for paraphrasing tasks

We might get expertise on a certain topic via the students (and lecturer) involved

We might be able to find new recruits among the students involved

We are creating links with academia, which is good for potential collaborations in the future ( joint research projects)



# Industry-based research projects

## How are we doing this in UPSKILLS?

- UPSKILLS Advisory Board is composed of six members from industry
- We explained them the aims of our projects, and asked for possible projects ( explaining the type of students we will have, their background, the amount of work they can do etc)
- Four gave us potential projects
- We presented the projects in one of the UPSKILLS meetings and asked what lecturers were interested. Three projects were selected.
- We set up meetings with lecturers and industry partners
- ...
- We will collect feedback from students lecturers and industry afterwards

# Industry-based research projects

## **What about after UPSKILLS?**

- UPSKILLS played an important role in putting industry and lecturers in touch
- Is it possible for lecturers to get in touch with industry without such a project?
- Who else could play the role of creating links between industry and academia?

# Industry-based research projects

## **Your experiences**

- Overview of experiences and feedback I gathered over the years by myself and by working with colleagues
- You probably have interesting experiences to share and lessons learnt
- Happy to hear your experiences later on in the interactive sessions!