

Preparation of learners, teachers and trainers

in the age of Artificial Intelligence

Presentation by Graham Attwell & Sophia Roppertz

6th International Conference on Employer Engagement



Co-funded by the
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of the European Union

Welcome!



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Our project

What **impact** will **AI** have on
vocational education and training in **Europe**
and
what does it mean for **teachers and trainers**?



Literature
Review



Case studies



Interviews with
teachers and
stakeholders



Online
survey



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AI@School **ixVET**
Improve Digital Competences
of VET Teachers and Trainers

TACCLE **AI**
Improving skills and competences of VET teachers and trainers in the
age of Artificial Intelligence

AI and VET

1

VET for Artificial Intelligence

- be prepared for changing work tasks
- development of new skills and qualifications
- to be able to take part in the shaping and use of AI technology

📖 Preparation for an AI-based world of work

2

Artificial Intelligence in VET

- AI/digital artefacts as tools for teaching and learning



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Part I: Preparation of learners



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Preparation of learners

Online survey among vocational school teachers (Germany)

Ideas for curriculum development

Category	Exemplary statement
Content	<ul style="list-style-type: none">- Offer <i>Deep learning</i> at least as a compulsory elective subject.- Additional qualifications- Discussion of ethical and social issues
General conditions	<ul style="list-style-type: none">- Training for teachers- Examples of lessons/ projects provided
Learning venue (design, cooperation)	<ul style="list-style-type: none">- Better cooperation between school, company and AI developers.- Less face-to-face teaching, more interactive teaching and learning (□ to promote social skills like teamwork etc.)



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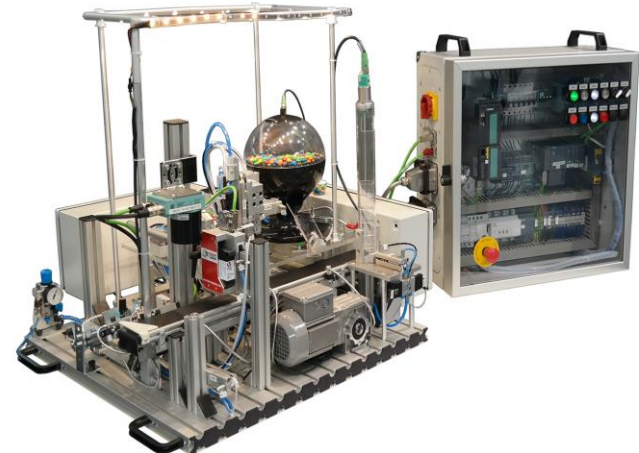
Q: Do you have concrete ideas on how to modernise curricula in a timely manner to respond to the introduction of AI?

Smart Factory

Vocational School Wolfsburg, Germany



- Model of a smart filling plant
 - Aligned with the real production conditions and manufacturing environments of modern, digitally operating companies
 - Digital learning platform
-
- ☐ Action- and process-oriented teaching
 - ☐ Bundling competences of VET school and Industry



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New apprenticeships

- In the UK there are growing skills shortages especially for data scientists
- new apprenticeship standards at pre- degree and degree level for training as an Artificial intelligence (AI) data specialist.
- developed by an industry group including the British Broadcasting Corporation, Public Health England, Bank of England, TUI, AstraZeneca, EasyJet, Barclays, Machinable, Office of National Statistics and UBS
- an expansion of university programmes in data science, and the extension of AI within computer science degrees



Part II: Preparation of teachers and trainers



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Supporting teachers and trainers

1

Providing Professional Development

2

Providing examples of effective practice

How can we scale opportunities of Continuing Professional Development?

Massive Open Online Course (MOOC)

1

Scalability

2

Flexibility

3

Open Educational Resources

4

Building Communities

Developing a pedagogic approach to designing online Professional Development opportunities

September 2021 – Be part of it!

Massive Open Online Course

Artificial intelligence (AI) and its applications in Vocational Education and Training

Equipping VET teachers and trainers with the knowledge and confidence they need to help them transform their VET provision into an innovative education of the future. The format of the course will allow participants to start it anytime and do as much as they like.



5

Modules

83

Topics

2

Languages (English and German)

5

Countries instructors are coming from
Germany, UK, Lithuania, Italy and
Greece

1. AI, Automation and VET
2. AI and the future of work
3. AI and Teaching and Learning in VET
4. AI, the curriculum and the skills required for teachers and trainers
5. **AI and ethics**

www.mooc.taccleai.eu

Discussion

- Will automation and AI lead to an increase or decrease in jobs?
- What new skills will be required in the future for people working with AI?
- How can we train young people for the jobs of the future?
- What are the skills and competencies required by teachers and trainers to deal with AI and automation?



Thank you!

www.taccleai.eu

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AI@School



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