

eDoer - A Human-AI based Learning Environment

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**Learning is
personal, driven
by a great
number of
individual goals
and contexts**

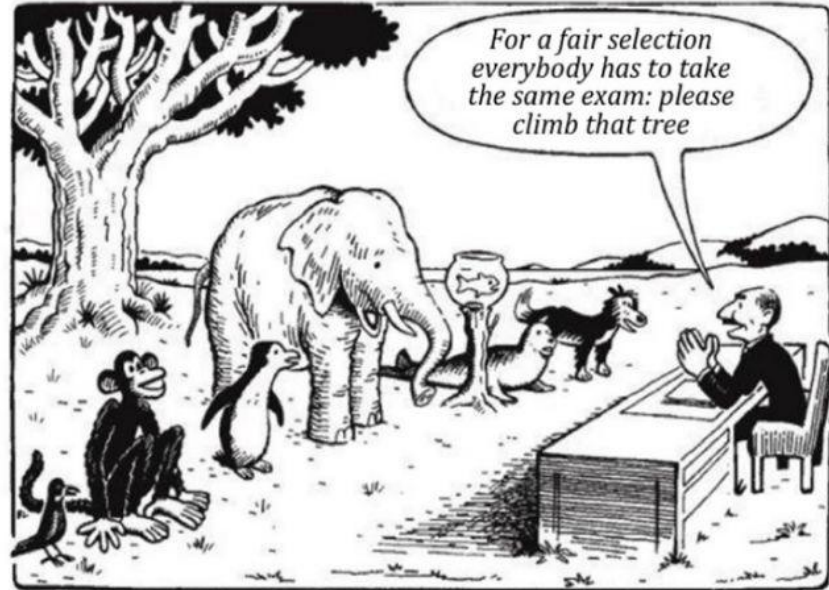
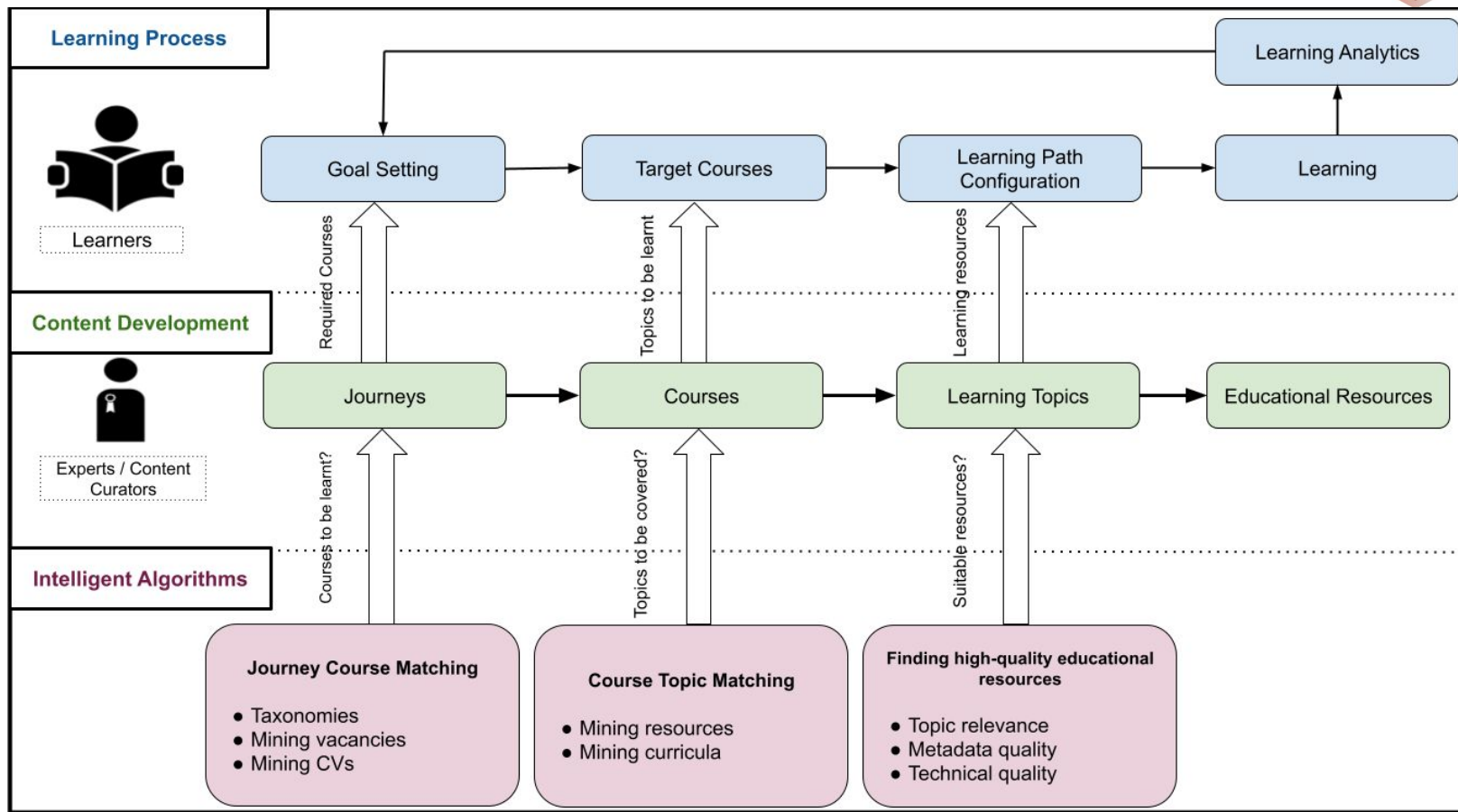


Image:
<https://www.psychologytoday.com/us/blog/finding-the-next-einsteins/201404/do-we-have-trouble-taking-objective-feedback>

**Empower learners through
inclusive personalized learning and
curriculum recommendations, on the
basis of different learning goals and
open/online educational resources**

Concept Overview





<http://edoer.eu/>

Open, community based, AI-driven learning platform

Legal issues we should manage

We are offering a service

Terms of use

- **Scope of application**
- **Registration and admission**
- **Rights and Obligations of**
 - **Experts**
 - **Content curators**
 - **Learners**
- **Deletion of user accounts and personal data**
- **Limitations of liability**
- **Miscellaneous**

Legal issues we should manage - cont'd

We are offering a service

Data protection concept

- Goal pursued with the system
- Purposes of processing in the sense of data protection law
- Registration with the platform
- Password management
- Description of user groups and their rights
- Which other system are connected
- Deletion periods
- Confidentiality measures
- Availability measures

Legal issues we should manage - cont'd



Licensing

- **Public domain**
 - Public is the owner
- **Open license**
 - Ownership is retained, but the permission of using the material is granted with proper attribution
 - Different types
 - Creative Commons-Attribution (CC BY)
 - Creative Commons - Attribution - ShareAlike (CC BY-SA)
 - Creative Commons - Attribution - No Derivatives (CC BY-ND)
 - Creative Commons - Attribution - Non-Commercial (CC BY-NC)
 - Creative Commons - Attribution - Non-Commercial - ShareAlike (CC BY-NC-SA)
 - Creative Common - Attribution - Non-Commercial - No Derivatives (CC BY-NC-ND)
- **All rights reserved copyright**
 - Ownership is retained and the permission needs to be asked

Ethical issues we should manage



- **Transparency vs Usability**
- **Personalization**
 - What are the criteria for learners' success?
 - How to create user profiles?
- **Triangulation**
 - How to compare a person to another one?

Publications - Conceptual framework

- ❖ Tavakoli, M., Hakimov, S., Ewerth, R., & Kismihók, G. (2020, July). **A recommender system for open educational videos based on skill requirements.** In *2020 IEEE 20th International Conference on Advanced Learning Technologies (ICALT)* (pp. 1-5). IEEE.
- ❖ Tavakoli, M., Mol, S. T., and Kismihók, G. (2020). **Labour Market Information Driven, Personalized, OER Recommendation System for Lifelong Learners.** In the 12th International Conference on Computer Supported Education (CSEDU 2020)
- ❖ Tavakoli, M., Faraji, A., Mol, S. T., & Kismihók, G. (2020, October). **OER Recommendations to Support Career Development.** In *2020 IEEE Frontiers in Education Conference (FIE)* (pp. 1-5). IEEE.
- ❖ Tavakoli, M., Faraji, A., Molavi, M., & Kismihók, G. (2022). **Hybrid Curriculum Development for Personalised Informal Learning Environments.** Accepted to be published in the 12th International Learning Analytics and Knowledge (LAK'2022), March 21--25, 2022. ACM.

Publications - Educational content analysis

- ❖ Tavakoli, M., Elias, M., Kismihók, G., & Auer, S. (2021). **Metadata Analysis of Open Educational Resources**. In the 11th International Learning Analytics and Knowledge (LAK'2021), April 12--16, 2021. ACM.
- ❖ Tavakoli, M., Elias, M., Kismihók, G., & Auer, S. (2020, July). **Quality prediction of open educational resources a metadata-based approach**. In *2020 IEEE 20th International Conference on Advanced Learning Technologies (ICALT)* (pp. 29-31). IEEE.
- ❖ Elias, M., Oelen, A., Tavakoli, M., Kismihok, G., & Auer, S. (2020, September). **Quality Evaluation of Open Educational Resources**. In *European Conference on Technology Enhanced Learning* (pp. 410-415). Springer, Cham.
- ❖ Molavi, M., Tavakoli, M., & Kismihók, G. (2020, September). **Extracting Topics from Open Educational Resources**. In *European Conference on Technology Enhanced Learning* (pp. 455-460). Springer, Cham.

Publications - Others

- ❖ Ilkou, E., Abu-Rasheed, H., Tavakoli, M., Hakimov, S., Kismihók, G., Auer, S., & Nejdl, W. (2021). **EduCOR: An Educational and Career-Oriented Recommendation Ontology**. International Semantic Web Conference. Springer, Cham, 2021.
- ❖ Elias, M., Tavakoli, M., Lohmann, S., Kismihok, G., & Auer, S. (2020, October). **An OER Recommender System Supporting Accessibility Requirements**. In *The 22nd International ACM SIGACCESS Conference on Computers and Accessibility* (pp. 1-4).

eDoer in Numbers



Nr of TIB Team members: 5

Nr of contributing organisations: 15

Nr. of scientific publications: 14

Amount of direct funding: ~ 2M Eur

Nr of curated content elements: ~ 2k

Nr. of registered users: 478

Thanks for funding this work!



Online, open learning recommendations and mentoring towards Sustainable research CAREers; <http://oscar-ai.eu/>



Advancing sustainable research careers for graduate students through training in mental wellbeing, open science, and communication skills; <https://oediverse.eu/>



Applied Data Science Educational Ecosystem; <https://adsee.eu/>



Business Informatics Programme Reengineering; <https://www.uni-corvinus.hu/ind/biper-project/?lang=en>



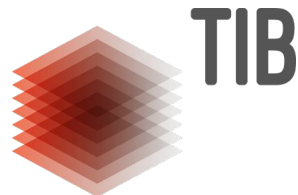
Implementation of an Adaptive Continuing Education Support System in the Professional Field of Nursing; <https://www.tib.eu/en/research-development/project-overview/project-summary/adapt>



A smart, AI-based digital further education space for elderly care by means of personalised recommendation systems; <https://wbsmart.eu/>



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