

# German-Israeli Student Workshop on "Artificial Intelligence & the Elderly"

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in cooperation with Shlomo Mark and Yotam Lurie

## Introduction

Artificial intelligence (AI) is one of the topics that has always been and is currently associated with great hopes and fears for gender and diversity aspects alike. Do AI-based methods contribute to objectivity and equal opportunities, or do they not rather reproduce mistakes of the past? Can they be used to analyze social structures and processes, or is their use limited primarily to technical contexts? These and other questions need to be discussed at universities with students from all disciplines, as interdisciplinary approaches are necessary.

In this context, lecturers of the Main Campus and Environmental Campus Birkenfeld at Trier University of Applied Sciences (Milena Valeva, FB Umweltwirtschaft/Umweltrecht; Stefan Naumann, FB Umweltplanung/-technik; Tilo Mentler, FB Informatik) together with 2 colleagues from Israel (Yotam Lurie<sup>1</sup>, Shlomo Mark<sup>2</sup>) have designed a concept for an international student workshop integrated into their respective courses and implemented it in the summer semester 2021. To go beyond the immediate lives of students, seniors were identified as a rough target group. Thus, the topic "AI and the Elderly" emerged.

A cooperation between lecturers and students from Germany and Israel was sought, since these countries differ greatly about two topics relevant to "AI and the Elderly":

1. The average age of the population in Israel is much lower than in Germany (median 30,5 vs. 45,7).
2. Investment in tech-startups is much greater in Israel than in Germany (**venture capital "per person": 553\$ vs. 36\$**).

Concept and implementation of the approach are explained subsequently.

## Teaching Workflow & Methods

In the sense of a lightweight approach, the thematic discussion was initially integrated into the lecturers' own courses. In this way, lecturers were able to control the students' efforts on a module-specific basis. The exchange between bachelor and master students was also deliberately aimed at.

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<sup>1</sup> Ben-Gurion University of the Negev, Israel

<sup>2</sup> SCE Shamon College of Engineering, Israel

Subsequently, the results of the students' work in exercises, seminars, and projects were presented in the context of a joint German-Israeli workshop. Joint discussion was followed by course-specific debriefings.

The topic "AI and the Elderly" was integrated into the following courses:

- Advanced Software Development Processes and Methodologies (integration of an ethical analysis) (S. Marks, Y. Lurie)
- Sustainable Information Technology and AI, Interdisciplinary Project (S. Naumann)
- Importance of the Third Sector & the role of hybrid organizations (NGOs, NPOs, Social Business) (M. Valeva)
- Usability Engineering and User Experience Design (T. Mentler)

The example of the course "Usability Engineering and User Experience Design" will **be used to illustrate the examination of the topic "AI and the Elderly":**

The module deals with the usability ("suitability") of technical solutions from the user's point of view and is, among other things, also dedicated to the systematic participation of target groups in development processes. It is taken by students from the Department of Computer Science in Bachelor's degree programs.

**As part of exercises with respect to "AI and the Elderly", students independently researched typical images and topics related to AI and seniors as a target group. The result was a deficit-oriented image of older people who could benefit from AI, especially in connection with physical infirmities and the need for care. In joint discussions, applications with respect to leisure, entertainment and sports were identified. The results of the various exercises were prepared for the workshop using an online whiteboard.**

## Outcomes and Lessons Learned

The joint workshop was held on the 9th of June 2021. This date was in the middle to end of the respective semester terms. In total, 11 students from Trier University of Applied Sciences and 10 students from Ben-Gurion University of the Negev and SCE Shamoon College of Engineering participated.

A video conference system was used for presentations and discussions (see Figure 1). Accesses, etc. were provided by the lecturer organization team. English was set as the common language. It should also be noted that the English-language presentations to a largely unfamiliar audience were quite challenging and valuable experiences for many of the students.

