AIDA - Actor-centered integration of digital assistance systems

Svenja Schäfer, Manuel Schlifski, Prof. Dr. Andrea Kuhlmann, Prof. Dr. Roland Schöttler, *EvH Bochum*

1. Background:

There is a discrepancy between the acceptance of available technologies and their lack of use in outpatient care [1]. This raises the question of what prerequisites must be in place for the implementation of market-ready technology in the living and working environments of different groups of actors - people with care needs, caregivers and care organizations - in the practical field of outpatient care.

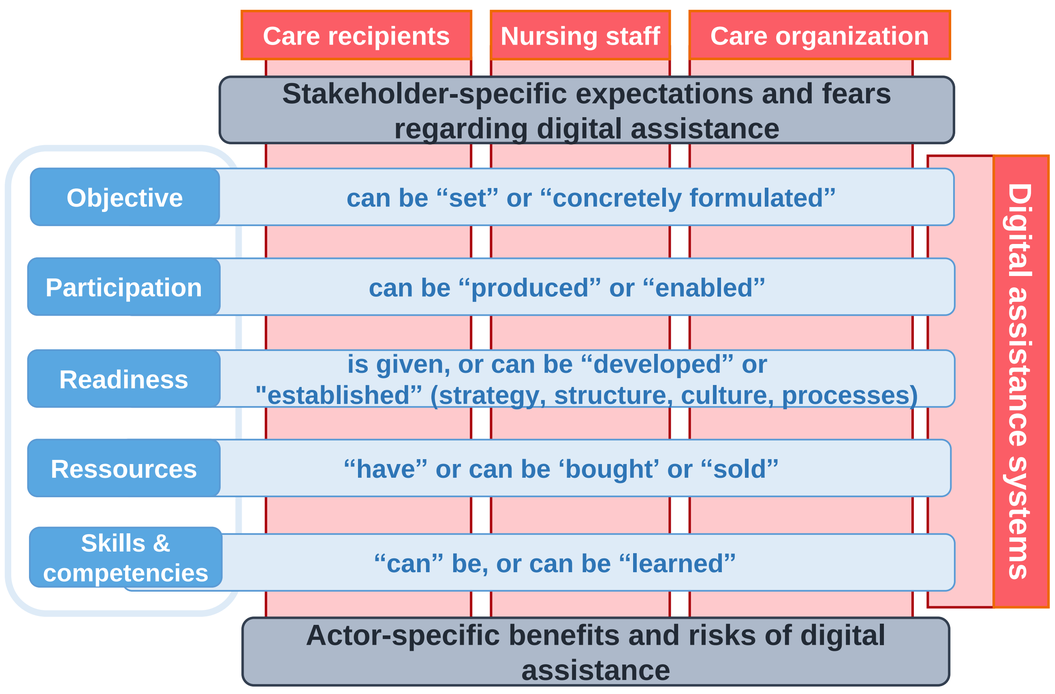
2. Project goal:

The aim is a framework model that supports care stakeholders in implementing digital assistance systems sustainably for future-proof care and recognizing **enablers** and **barriers**.

3. Frame model:

A framework model with a total of five so-called “fields of interest” can be derived from considerations on topics that could influence the implementation of digital assistance technologies (see Fig. 1). These are (a) Objectives: This comprises the expectations of care stakeholders with regard to the use of technology. (b) Participation: Involvement and co-decision of various stakeholder groups in the implementation process [2]. (c) Readiness: Readiness for technology in the sense of technology acceptance and
-competence [3] and digital readiness understood as the ability of organizations to react and innovate [4]. (d) Resources: Checking the availability and, if necessary, provision of actor-specific resources. (e) Skills & competencies: target group-oriented qualification for the implementation of new technologies [5].

Fig. 1: Framework model for actor-centered integration of digital assistance systems

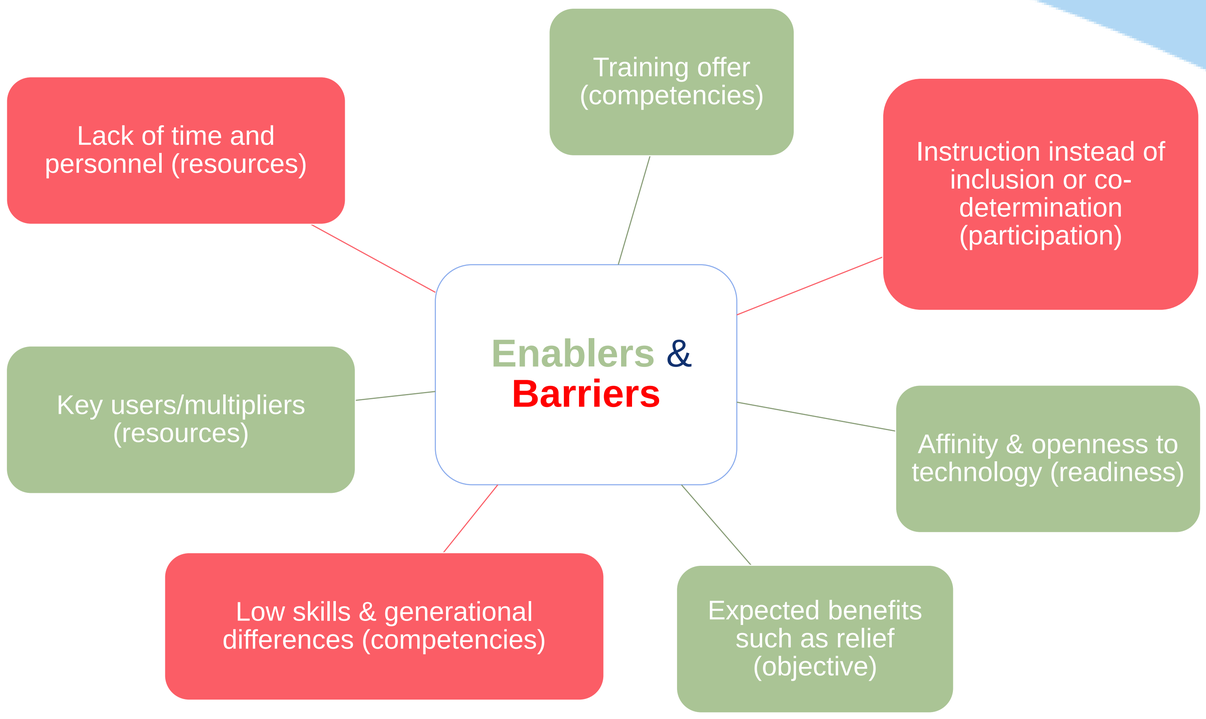


Source: Schöttler et al. (2024): Draft AIDA framework model, unpublished project documentation.

4. Method:

The AIDA project accompanies the implementation process and the use of a sensor-based assistance system in the households of outpatient clients (n=8) of Diakonisches Werk im Kirchenkreis Recklinghausen. Predominantly qualitative research methods, such as guided interviews, focus groups and observations, are used to record the perspectives of the various stakeholder groups.

Fig. 2: Exemplary **enablers (green)** & **barriers (red)** from the perspective of nursing staff



Source: EvH Bochum (2024): own surveys

5. Results:

The framework model offers the opportunity to evaluate the implementation process and the use of the sensor-based assistance system used in the AIDA project in the context of the working and living environment of those involved in outpatient care. Using the example of the nursing staff stakeholder group (see Fig. 2), it can be seen that for all “fields of interest” there are so-called **enablers** that favor the implementation process and **barriers** that can hinder it. An example of an enabler is the availability of training courses that can strengthen the skills of nursing staff and thus implementation. This also confirms earlier research findings [5]. An example of a barrier is the lack of resources required for the implementation process in practice. In the present context of outpatient care, this primarily includes the lack of time and personnel to comprehensively integrate and use technology in addition to daily care.

6. Conclusion and outlook:

Further challenges for the AIDA project in future will be to identify **enablers** and **barriers** for the stakeholder groups of people with care needs and the care organization on the basis of the existing “fields of interest” and thus to successively specify and agree on the framework model, which clarifies the interactions within and between the stakeholder groups.

References

[1] Kuhlmey, Adelheid; Blüher, Stefan; Nordheim, Johanna; Zöllick, Jan (2019): Ressource oder Risiko -Wie professionell Pflegende den Einsatz digitaler Technik in der Pflege sehen. In: Zentrum Qualität in der Pflege (Hg.): ZQP-Report: Digitalisierung in der Pflege. Berlin, S. 31–35.

[2] Kuhlmann, Andrea; Reuter, Verena; Schramek, Renate; Dimitrov, Todor; Görnig, Matthias; Matip, Eva-Maria; Matthies, Olaf; Naroska, Edwin (2018): OurPuppet–Pflegeunterstützung mit einer interaktiven Puppe für pflegende Angehörige: Chancen und Herausforderungen im sozialen und technischen Entwicklungsprozess. In: Zeitschrift für Gerontologie und Geriatrie, 51. Jg., Heft 1, S. 3–8. DOI: 10.1007/s00391-017-1348-6.

[3] Neyer, Franz J.; Felber, Juliane; Gebhardt, Claudia (2012): Entwicklung und Validierung einer Kurzskala zur Erfassung von Technikbereitschaft. In: Diagnostica, 58. Jg., Heft 2, S. 87–99. DOI: 10.1026/0012-1924/a000067.

[4] Nasution, Reza Ashari; Rusnandi, Linda SendyLediana; Qodariah, Elis; Arnita, Devi; Windasari, NilaArmelia(2018): The Evaluation ofDigital Readiness Concept: ExistingModels andFuture Directions. 11. In: The Asian Journal ofTechnology Management (AJTM) (2), S. 94–117.

[5] Schlifski, Manuel; Kuhlmann, Andrea; Köpke, Janina; Kühnert, Sabine; Schöttler, Roland; Nellen, Cosima (2023): Digitale Kompetenzentwicklung in der ambulanten Pflege –Wissensstand und Anforderungen für die Implementierung digitaler Assistenzsysteme. In: Boll, S. et al. (Hg.): Mit Pflegeinnovationen die Zukunft gestalten –menschlich, professionell, digital. Zukunft der Pflege Tagungsband der 6. Clusterkonferenz 2023. Oldenburg: University of Oldenburg Press, S. 47–51.

Weitere Informationen zum Projekt finden Sie unter: https://www.evh-bochum.de/projekt-aida.html

EvH-Bochum.de

GEFÖRDERT VOM
Bundesministerium für Bildung und Forschung

FORSCHUNG AN FACHHOCHSCHULEN