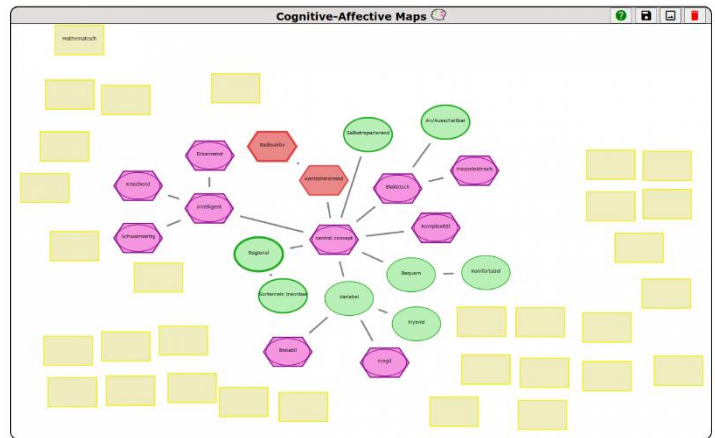


Central main message of article

Our main message of the article is the following:

The central goal of the article is to find out which (systematic combination of) basal attributes are overall negatively or positively evaluated (measuring valence) regarding the acceptance of new material systems.

- Therefor respondents get the task to connect 30-40 basal attributes to the ambivalent “acceptance” concept in the center of a CAM and rate the valence of the single basal attributes.



Plus, we will organize a world café at the livMatS retreat where our final basal attribute list will be evaluated by experts; for each attribute ask (a) about importance for livMatS (adding here 10 unimportant basal attributes to check for consistency of ratings), (b) about valence $[-3,3]$, further after evaluation experts can freely add further attributes (+ indicate valence) and in additional questions asked about

1. relevance of specific basal attribute for Research area (A, B, C, D)
2. Possibility to indicate central literature
3. and give feedback on basal attribute approach
4. Email if feedback on results is desired

Open Question

Background:

When reading multiple livMatS article, which have included the word “demonstrator” and the viewpoint article of Walther (2020) I have the feeling that central (future) application-cases are repeating, for example (highlighted by me):

- make plants interesting models for a new group of **soft robots and soft machines** that differ fundamentally from those inspired by animals (Speck et al., 2023, p. 1)
- for application in the fields of **bioinspired architecture, autonomous systems, and soft robotic actuation** (Tauber et al., 2022, p. 18)
- for novel applications across fields such as **robotics, smart actuators, and adaptive architecture** (Tahouni et al., 2021, p. 1)

Or sometimes articles highlight attributes of the material systems:

- of its **self-sealing function [self-repair]**, the presented multilayer system is generally suitable for use wherever (minor) damage might occur, but where it is difficult to access for maintenance and repair (Becker et al., 2022, p. 8; Jentzsch et al., 2022)
- range of possibilities, such as **choreographed motion** in composite structures, consecutive shaping and **locking/unlocking** in self-assembling structures, or robot locomotion enabled by sequential actuation (Tahouni et al., 2021, p. 12)

Questions:

1. How far has the Walther (2020) article influenced the development of demonstrators / lines of research in the livMatS cluster? Are there any other super influential articles?
2. Do you see any overarching goals (possible areas of application) that livMatS pursues?

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