WHICH TYPES OF NUDGING, SUCH AS GAMIFICATION OR VISUALISATION, ARE USED?

Nudging → Education

Nudging can be defined as the shaping of decision-making contexts (also called “choice architectures”), which uses findings from psychology and behavioural economics in order to guide people towards making certain decisions. The specific construction of visibility (such as positioning healthy food on eye level) is one of many nudging examples.
Nudging plays an increasingly important role in relation to the digitisation of our lives as insights from psychology and behavioural economics are actively programmed into the design of many digital technologies. One of many examples are newsfeeds in social media, which are programmed to sort and hierarchically arrange messages for users (based on their prior clicking behaviour, indicating their ‘preferences’).

Gamification
A very powerful nudging strategy is including gamification elements in app, website or software design. Gamification can be defined as “the transfer of elements and processes typically used in games into contexts outside of gaming (such as education), aiming for behavioural changes and increased motivation” (Gabler, own translation). Examples include the integration of scoring systems, instant rewards or peer comparisons. All such elements encourage users to follow the designed choice architecture in order to be rewarded and, consequently, to feel good about their performance. Accordingly, also the tech industry uses gamification to increase user engagement with their products and thus to maximise their profit. Because gamification deliberately exploits the psychological characteristics of human emotionality and irrationality, it is usually quite successful – thus, seemingly “proving” to work.

Also in the EdTech sector, increasingly sophisticated nudging strategies are in use. Usually, they are promoted as fostering motivation, making usage easy and fun, or facilitating data-based decision-making. Also in education, nudging is intended to prompt users to make “good” decisions – in other words: following the programmed design. To ensure they do, designers not only make use of intensive data tracking, but equally of various interventions to bring users, who do not follow the intended path, “back on track”.

Example
Nudging technologies are often used without users’ awareness and their effectiveness is sometimes difficult to recognise. Examples of such powerful, but “hidden” nudges are default settings (which users in many cases don´t change, but use as they are) or the way in which individual pages, buttons, graphics or operations are arranged. Furthermore, data dashboards, which are used in nearly every learning analytics system, very often contain some kind of traffic light indication that highlight “particularly problematic” values in red and thereby draw the users’ attention to these cases.

Risks of nudging in the education sector
1. Nudging always comes with certain assumptions about “desirable” behaviour. Particularly gamification hereby often relies on extremely simplistic framings of education, which reduce teaching and learning to a small number of numerical values. Highly problematic impacts may occur when learners increasingly orient their actions towards such frameworks (such as “working on their scores” rather than engaging with learning content in a reflective manner).
2. Although nudge promoters often claim that users have the option to decide differently from recommended pathways (so-called “opt out”), in practice their freedom of choice is considerably restricted. This is particularly true the more granulated (and, thus, “better”) nudge designs become. Therefore, it is more appropriate to classify nudging as suggestive, in many cases even manipulative technologies.
3. Nudging aims to prevent what the design defines as failure, focusing instead on ongoing praise and immediate rewards. However, experiences of resistance, failing and, consequently, the development of resilience are of crucial significance for educational processes.
4. Many nudging strategies deliberately want users to “lose themselves” in and spend as much time as possible in front of digital tools. As a result, successful nudging will in many cases automatically increase screen time, which comes with various health risks.
5. Nudging can seduce users to unreflectively disclose their data, and therefore increases risks of losing data ownership or becoming objects of surveillance.

→ Questions

- How are users “guided” though a respective tool/platform/software?
- How does the software “help” e.g. learners make certain decisions?
- What do users get to see – how, why and for what purpose? Where is their attention drawn to?
- Would users agree with the provided decision-making guidance upon closer inspection? Which decisions that might be useful (for example pedagogically) are hidden or impeded?
- How are, for example, students’ “gazes” shaped and guided? What can teachers see about this and which conclusions does the software suggest to them?

Literature and References

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UNBLACK THE BOX is a network initiative founded in 2019 by researchers from education science, sociology, information technology, media and health education, as well as teachers in schools, universities and pedagogical training. Our goal is to enable educational institutions and teachers to respond to the growing datafication and digitization of education with enlightened, critical and conscious decision-making, even without extensive IT knowledge.
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