# **Religious Education in the digital change. Concepts and reflections from a German context**

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The Religious Education Laboratory (RELab digital) project investigated the ways in which Religious Education teachers use digital media. Following a process lasting over five years, this article will primarily summarise the results of didactic relevance. Chapter 1 contains a description of the project structure. Chapter 2 is dedicated to the pedagogical challenge of teaching Religious Education (RE) in the digital change. Chapter 3 reflects from a pedagogical standpoint on empirical findings of the project, which were developed in the context of classroom observations and interviews. Chapter 4 focuses on topics related to the profession of teachers: What self-concepts are pursued by teachers of Religious Education and/or can be reconstructed through the way they act in the classroom? How can the often critical perceptions of teachers who use digital media in religious education be put to good use in the future? The conclusion bundles the most important insights and highlights examples of further research requirements.

## 1 Context and research design of RELab digital

## 1.1 The RELab digital project

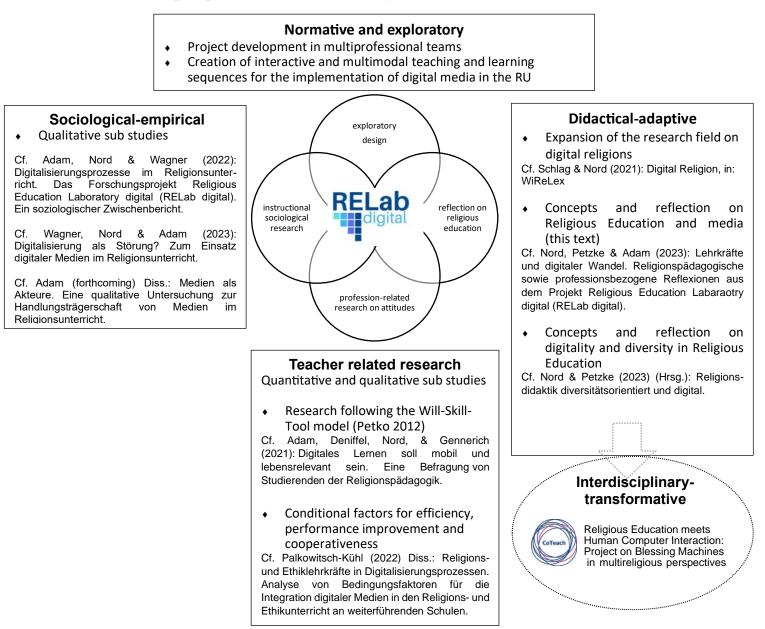
RELab digital sees itself as a think tank with various sub-projects for the perception of and reflection on digital education issues, particularly those discussed in Media Education and Religious Education.

RELab digital began its work at a time of high-profile debates and promises of digital education reform. Expectations were later dampened by practical experience with digital media in the classroom. Nevertheless, since then learning cultures have clearly been changing considerably; the Covid pandemic triggered experimental online teaching in the subject. They have since been reflected upon and made didactically accessible (cf. e.g. Dietzsch & Pfister 2022; Dietzsch 2020; Gärtner et al. 2020). One central insight is: the processes of change for digitalised RE are in part occurring without any true awareness of them. For the most part, they are only reflected upon when lessons fail to run smoothly (Wagner, Nord & Adam 2023). The evaluations carried out by RELab digital therefore serve the goal of making the differences between the ideal and the reality of implementing digital media in the classroom practically accessible and thus more open to reflection.



Fundamentally, it can be stated that RELab digital has conducted the first quantitative and qualitative studies to ascertain the use of digital media by RE teachers and those studying to be RE teachers in the German-speaking world and, as far as we can see, also internationally. The project was launched in 2017 and funded by the Evangelical Church in Hessen and Nassau, the Evangelical Lutheran Church in Bavaria, and the Professional School of Education at the University of Würzburg. The following diagram illustrates the main fields of the project, as well as its approaches to research, and names publications in each field:

## 1.2 Research perspectives and research objectives



Especially in the theoretical-normative perspective, conceptual orientations, such as can be found in educational institutions, e.g. the Ministry of Education and Cultural Affairs, but also in European and international bodies for the promotion of digital education (TPACK, cf. Köhler 2

& Mishra 2008; Twentyfirst Century Skills, cf. Tight 2021, DigCompEdu, cf. Punie & Redecker 2017), were guiding factors in the development of the research setting. The will-skill-tool model (Petko 2012), for example, provided an orientational basis which was already able to reference widely acknowledged conceptional research on didactics. Within RELab digital, this approach was used primarily in Hessian and Bavarian schools, as well as in further education courses offered to RE teachers by the church. In the sociological-empirical perspective, experiences made by RE teachers could be included. They addressed the tensions between the ideal and the reality of implementing digital media in RE. Research was again conducted in Bavarian schools in the Würzburg region, as well as in seminars at the University of Würzburg. In addition, the importance of conceptional work on didactics became increasingly obvious. It was good for us to see that the supplementary text of the Standing Conference of the Ministers of Education and Cultural Affairs in the Federal Republic of Germany (KMK 2021) also emphasized this at the same time. For Protestant RE, this insight has already been discussed in detail (Nord & Pirner 2022) and incorporated in a text authoritative for the Evangelical Church in Germany (EKD) (EKD 2022).

After having focussed on the implementation of digital media in RE in 2017-2019, this paper now presents insights in empirical observations and reflections on such implementations (2019-2023). As in all school subjects, learning with and about digital media is necessary for RE in order to acquire overarching skills. Important research questions in RELab digital are which lines of conflict emerge for RE teachers in the process of acquiring digital skills, how they deal with them, and how the conflicts can be processed.

## 1.3 The underlying understanding of media

In its understanding of digital media and digitalisation, RELab digital ties in with religious education in a mediatised world (Nord & Zipernovzski 2017). Media are accordingly understood as complex entities and in no way as individual techniques or single media. RELab digital is not primarily concerned with how best to integrate a tool in RE lessons. This is an important area of the project, but it is dependent on a more comprehensive approach: the social and cultural dimensions are to be inferred not only of digitalisation processes, but more comprehensively of mediatisation processes in relation to religion (cf. Krotz 2022). Digitalisation has an historical dimension, building on mediatisation processes that have developed over a long period of time. There was no noteworthy media-related break at the beginning of the digital era, nothing completely new began. Digitalisation processes are linked

to previous media developments. The history of theology and the church shows how religious practices are constituted by media; it can therefore also be 'told' as a history of media up to the present day. From the oral to the written tradition, Christianity became a book-based religion for many people; not least the history of the Reformation shows how much reading and writing are part of religious practice. Theology can even be viewed as one of the first communication and media sciences of its own provenance (cf. Leutzsch 2017; Burkhard 2017; Huizing 2017). The RELab digital project, which is substantiated in terms of religious and media education, is embedded within this context of a media understanding that is broadened beyond the pedagogical debate and primarily informed through communication studies and sociology, as well as theology. A specific outcome of this broadening is that the media-pedagogically oriented research into the handling of digital media by RE teachers is in permanent hermeneutic tension between 'learning with' and 'learning about' digital media. The sociological observations in the classroom illustrate this in particular: they show how, and that the media interfuse the communications of the lessons at a spatial, temporal and social level. In this way, digital media come into focus as steering and control factors of communication in the classroom. This is not something which only applies to the so-called digital media revolution; both factors have always been features of media. For the discussion about religious education, however, this perspectivation is currently important in relation to digitalisation if it wishes to make RE sensitive to heterogeneity and diversity. Here it is imperative that power issues are handled transparently, and such issues include media, as well as their steering and control functions (cf. Nord & Petzke 2023).

But RELab digital and teaching religion cannot get by with an understanding of media based on sociology and communication alone. Rather, it is a project that in the service of teaching religion conducts media-pedagogical discussions on the topic of digital education in the classroom, reflects on them, and classifies them within a broad understanding of media as mentioned above. How can teachers in the classroom appropriately address and reflect on the instructional and pedagogical significance of media and media use for the subject of religion? (cf. Tulodziecki, Herzig & Grafe 2019, 16) In concrete terms: Christian religion has a causative connection to media implementation, and in its context, it is clear how the environment of children and adolescents is linked to media and the handling of media in multiple ways.

The underlying understanding of media here, as should be clear by now, is closely connected with an understanding of religion that reveals how already existing religious practices, but also their further production and continuous further development, are as a whole shaped by media. For decades, economic, political and social processes of globalisation have been unfolding which have also impacted religious systems and their practices. But "the transformation of communication through digital mediatisation as (not the only, but) one of its essential causes" (Knoblauch 2020, 7, translated from German by the authors) seems highly effective to us, also following on from Hubert Knoblauch. "It is what potentialises the acceleration of action and technologically condenses it in such a way that we are confronted with new forms of social situations and translocal interactions." (ibid., also translated from German by the authors) Because religious practices and thus religions are undergoing this process of mediatisation, it is logical to address not only media and methods, but also their subjects, especially digital religious practice.

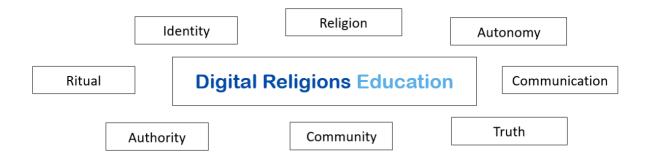
#### **2** Digital Religions Education

During the project period of RELab digital, religious practices have changed, and so has the way in which practical theology and religious education deal with digital culture and religion (cf. e.g. Merle & Nord 2022). It is becoming increasingly clear not only that, but also how the spread of digital communication is impacting religious practice and the understanding of religion(s), and RE is no exception.

In the previous research on digital religion(s), at least four waves can be distinguished (cf. Campbell 2021; Nord 2021; Schlag & Nord 2021). Religion Online or Church Online, as well as Online Religion or Online Church, have all experienced some prominence. "The religion on offer was no longer determined solely by the classical religious authorities, but acquired its own digitally expressed religious beliefs, as well as manifestations of an online religion, in accordance with the logic of digital communication and its extended range." (Schlag & Nord 2021, 2, translated from German by the authors) Online practices and offline practices behave reciprocally and amalgamate, so that the field of digital religion actively impacts the culture of religious practices. It is not a case of religion no longer being, for example, Christian, Buddhist or Muslim, and instead understanding itself as digital. Rather, this term more closely defines an interdisciplinary approach to phenomena of digitalised religious practice on the one hand, and to religious practice in the context of a stated culture of digitality (cf. Stalder 2016) on the other. Analogous to the descriptions of the waves related to the church, similar impacts could be adapted for RE. Four different 'religious education waves' overlap: A first wave describes the emerging use of digital technology in RE lessons. A second wave describes the online teaching of religion, and a third wave is named with the working term Digital Religious Education. Finally, the researching of Digital Religious Education constitutes a fourth wave. The working term Digital Religious Education is not (only) to be interpreted as teaching with digital religion, but as a processual exploration of the mutual influence of online-offline practices on teaching and its content, as well as the hermeneutic and interdisciplinary question of the extent to which digital (religious) education contributes to the design of digital technology. In this context, digitality in lessons is not considered as a tool, but as a practice in RE teaching, which includes its impact on methods, content, processes, communication and teachers. Such overlapping 'religious education waves' can, analogously to digital religion, describe the specific transformation processes that RE is undergoing in the age of digital culture. "In thematic terms, then, the complex fundamental question is raised of the extent to which current dynamics have implications for religious-pedagogical reflection, content and focus, as well as of the associated conceptional implications for RE." (Schlag & Nord 2021, 1) It was within this field of questioning that the RELab digital project for RE came into being, even though its main focus was limited to the handling of digital media by teachers of religion. The broad scope for research and reflection brought complex processes into view which made digital Religious Education, i.e. the interdependence between Religious Education and digitality, explorable.

It was the U.S. media scholar Heidi Campbell (cf. Campbell 2021) who brought a plausible structure to the research area of digital religion. However, the field of education was not included. During the didactic reflection on the project, it was noticeable that digital religion topics, such as religion, ritual, identity, community, authority and embodiment (cf. Campbell 2021), still play a role in reflections on *digital RE lessons*. They permit conclusions to be drawn about a needs structure in religious practice, corresponding to needs structures such as those used in Human-Computer Interaction for reflections in the area of usability. Such human needs include e.g. stimulation, autonomy, competence, meaningfulness, security, self-worth, as well as connectedness, and even extending to popularity and physicality. In this sense, we can assume correspondences between the topics of digital religion elaborated from a media standpoint and reflections on human needs elaborated from a psychological standpoint. For example, the needs for competence and autonomy are linked to the encompassing theme of identity. Another example is that stimulation and flow effects are central to rituals. Furthermore, the needs for security or meaningfulness go hand in hand with authority issues. Last but not least, connectedness is a need that requires communication and community.

We believe that, in line with the abovementioned aspects of digital religion and human need structures, the following areas of reflection can be marked out for *Digital Religions Education*:



These topics, which initially focused on religious practices from the standpoint of media, are clearly not only relevant for such a media-sociological definition of religion, but can also play an important role in the development of religion-related digital technology (cf. Hassenzahl 2008). From our Christian perspective, the principal idea here is that the gospel corresponds to basic human needs and can, for example, inspire a salutary change of direction in one's life. It is part of the religious tradition of Christianity that the gospel is life-affirming. Not least the doctrine of justification, for example within the Protestant tradition, is aimed at people experiencing themselves as accepted, in a deeper sense, through their relationship to God, to other people and to themselves. What this means for the development of religion-related digital technology, and how such an acceptance, which encourages human well-being, can be experienced today, are questions for future research and development.

# **3** Digital Media in Religious Education practice: expectations and classroom realities

Didactic discussions pertaining to religion participate in the digital debates and in this way anticipate the interdisciplinary issues surrounding digital media. The significance of this became accessible during reflection on the raw data and sub-studies collected interdisciplinarily in RELab digital (see 1.2). Expectations and classroom realities clashed, making explorable through concepts of religious education what was often not recognisable from a normative perspective. Finally, the sociological and praxeological access to the field in RELab digital also challenged the research team didactically; we have been inspired to reflect on various digital narratives, such as self-determined learning or efficiency.

## 3.1 Classroom disruptions through the use of media

Classroom barriers and disruptions caused by using digital media could be observed repeatedly in the RELab digital project. Disruptive effects, as gradually became clear to us, are not only relevant to maintaining the instructional flow, as we will briefly explain in the following. Far more, they open up new perspectives on how digitalisation is lived in RE lessons, and the educational gains to be had from it. These perspectives and gains can be interpreted theologically and thus have relevance for Religious Education and religious didactics; they also provide an opportunity to question the professional understanding of RE teachers and the processes involved in a 'good' RE lesson.

With regard to instructional flow, "[...] events that impair, interrupt, or make impossible the teaching-learning process by partially or completely suspending the conditions under which teaching and learning can take place" (Lohmann 2003, 12, translated from the German by the authors) are referred to as classroom disruptions. Dealing with disruptions is part of German pedagogical training and teaching practice across all disciplines and forms part of classroom management. In contrast, the interactional disruptions that got visible in RE were caused by socio-technical arrangements, and it became apparent that there are no routines in place for dealing with them (cf. Wagner, Nord & Adam 2023, 11): Digital media are 'suddenly' in the foreground as a potential source of disruption, meaning that teachers are primarily occupied with technical equipment instead of with teaching:

"Instead of the class, the teacher first turns to the technical equipment, absorbing time and attention. The teacher remains silently seated at the lectern and clearly turns towards smartphone and VR goggles. Apart from the loading screen there is nothing to see." (Adam, Nord & Wagner, 2022, 220, translated by the authors)

Communication in Religious Education classes was disrupted in such a situation evoked by

**Communication** digital technology. This disruption is open to theological and possibly even more precisely religious educational interpretation. Questions about digitality and religious communication may arise. To what extent does digital technology, as an agent in communication and beyond a mere mediating function as a medium, possess the constructivist power to inscribe itself into social (educational) and religious (faith) reality? To what extent must technology then receive attention as a communicative agent in order to find an adequate way of dealing with media-based disturbances? How does this change religious communication, and how are faith processes shaped by it?

Further exemplary disruptive effects became apparent when students had to use a new technical application. It was often accompanied by an observable and disturbing increase in volume as

an unwanted effect. But disturbances also occurred when technology had to be used which was already familiar:

"When it now becomes apparent that not all tablets are fully equipped with the necessary materials and apps, the students complain: 'Where is this Morfo thing?' The volume goes up again, [...] some of them are playing around." (B1-S1-I, 186-170, translated by the authors)

#### The fact that digital media interfere with planned teaching processes, that they disrupt the ritual

of teaching, so to speak, can be interpreted in terms of effective classroom management (cf. Drechsler & Schindler 2019, 360; 362) and

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quality features of good RE: in this teaching example, an efficient use of time as a quality feature of the process, and focus on the essentials as a feature of professional quality according to the quality dimensions and criteria of good RE (cf. Schröder 2022, 386), are obviously missing. The disruptive moments repeatedly cause friction and a loss of momentum. However, smoothness and momentum are the measure of a teacher's ability to ensure a fluid teaching process (cf. Drechsler & Schindler 2019, 362). Teachers are therefore, or so we assume, interested in continuing lessons as planned without delay in order to ensure the achievement of lesson objectives and to project themselves as competent teachers. With these requirements, an obvious desire is to use media as efficient methods (see chapter 3.2.2) to achieve teaching goals. If we take a scientifically oriented look at these situations, we can see how paradoxical side-effects arise: for example, when efficiency (cf. chapter 3.2.2) is at stake, or when digitality is interpreted only as a tool and not additionally as a religious practice.

The fact that the practice of digitally supported teaching and learning follows specific patterns is not a problem that arises only in RE. It is our assumption that this phenomenon is not specific to religious teaching but refers to all interaction with digitality. What occurs as a disturbance in the classroom can be experienced in everyday human-machine communication when dealing with digitality and can therefore be presented as an integral moment in dealing with digital media. From a scientific perspective, there are therefore very good reasons for RE to view disruptions through interaction with digitality as a performatively experienced opportunity for a religion-based educational process. On closer examination, this classroom experience raises anthropological and, in a narrower sense, theological questions about the relationality of people, God, the world and technology. One of these questions has to be the significance of self-confidence for human interaction with digital technology.

In addition to such more media-ethically oriented issues, however, there are also questions about a further developed adequate understanding of the profession, which, as already mentioned, also arise independently of digitality: "Can an understanding of professional action [in digital contexts] be developed in the religious teaching profession which positions the unplanned not only as a 'disturbance', but also as an integral moment [...]?" (Leonhard 2019, 27, translated by the authors)

To summarise: the self-confidence to move or perceive oneself with one's own social spectrum of action in different relations within the field of tension between humans and machines, as well as to reflect on one's own actions, is probably one of the most important skills for shaping everyday life in a digital culture. Thus, the further pursuit of, exploration of, and reflection on the topic of susceptibility to disturbance in digital communications as a competence-promoting phenomenon is worthwhile. During our classroom observations, one teacher transformed experienced barriers of interaction with digitality into competence-promoting communication:

"This procedure [preparation of the presentation of results] lasted longer than the planned five minutes; for example, the loading process was interrupted several times due to simultaneous use of the internet page. In the meantime, the teacher asked the class: 'Do you have any ideas how to solve this problem?' One student called out, 'What if we use our own phones?' To which the teacher added, 'That's right, it's called Media on Device.'" (B9-S2-I, 1140-1145, translated by the authors)

Such ad-hoc learning opportunities can also lead to explicitly religion-related communications

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in appropriate situations. At this point, the teacher does not necessarily have to ensure that the digital technology works or be held responsible

for it; he or she can thematically introduce the life-world experience in the form of a religionrelated communication regarding the mismatch between machines and humans and interact professionally with the students, instead of necessarily turning away from the students and towards the technology. One teacher interviewed here gave the apt description: "I have to get away from this [role] that I'm the all-knowing teacher, that I can do everything." (EI-1, 4818) Practised responsivity as skilled religious expression and religious response (cf. Leonhard 2019, 515) can be helpful here as a professional competence of the RE teacher, showing an increased ability to communicate, whereby "[...] participation in interaction and conversation is continuous." (Leonhard 2019, 514) Religious education is continued smoothly and congruently (cf. Leonhard. 2019, 313) without interruption, even though a technical disruption has occurred. Of course, this is not an all-round solution and it does not eliminate systemic barriers, such as those caused by a lack of technical infrastructure (cf. chapter 3.2.2). Nevertheless, a professional approach permits a secure and reliable continuity of religious education activities and a good relationship with the students. On the other hand, impulses for interaction with digitality and religious communication within it can be addressed as integral moments, so that the students are integrated with their own experiences. This approaches thus encompass the potential to strengthen both teachers and students in their successful handling of digitality. These possibilities represent a special and stand-alone competence of RE, for which we would like to raise awareness.

## 3.2 Reduction of humankind in RE?

Contexts of digital education often involve an image of humankind which is functionally reduced to a learning and working human being, a technologisation of what it means to be human. In discussions about religious education, this foreshortening is also usually maintained below the surface, and we perceived it during RELab digital. In topics like 'efficiency', 'self-determination', 'individualisation' and 'inclusivity', the potentials of digital education are represented simplistically. In the following we shall reconstruct this and provide examples.

### 3.2.1 Talk of digital learning

One example of such reduction is the lack of reflection on the elementary difference between Religious Education and digital learning. The term (religious) education encompasses a far more complex process than is described by the term digital learning. On the one hand, Religious Education does not need the attribute 'digital' since Religious Education takes place in mediatised worlds, and thus the binary worldview that distinguishes digital from non-digital no longer applies to the reality of life (of the students) in a digital culture. On the other hand, Religious Education has a scope of reference which must be distinguished from the term 'learning': as relevant dimensions for Religious Education, Kumlehn names self-education and self-reflection on the path through the stimulating potential of experiential world perception

and culturally mediated educational offerings, as well as anthropological prerequisites and the relational anchoring of

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educational processes in relationships (cf. Kumlehn 2015). Religious Education is founded on Christian images of humankind which the concept of learning does not incorporate because it functionally defines the human being as a learner. Digitally-based learning in RE is thus not a synonym for digitally-based Religious Education. Furthermore, it should be noted that when narratives of digital learning or digitisation bring into play the potential for more self-efficacy, individuality, etc., these cannot be automatically equated with the religious pedagogical objectives of self-efficacy and individuality (see 3.2.3). There are differences between a self-efficacy which is primarily experienced technically and therein functionally, and one which coincides with a religion-related communication without an exclusively functional orientation, even though it can also be digitally processed. It is precisely in the sensitivity to this difference, however, that the elementary strength and task of Religious Education lies. The required sensitivity to difference here is by no means new, but has always been valid for a (functionalised) understanding of education, surfacing in external references and not based on Christian images of humankind. Within a digital culture, however, its significance becomes acute: those lacking digital skills will hardly be able to function within this culture and will therefore lose their suitability for the workplace and ultimately also their relevance for a productive society.

#### 3.2.2 Efficiency

Efficiency and added value are two other key concepts associated with a digital culture and also visible among student teachers: prospective teachers are more willing to use digital media if they expect it to make them more efficient and improve the performance of their students, and if they rate the benefits for their own work effectiveness highly (cf. Gennerich et al. 2021, 3). However, our open field test and the interviews conducted with teachers suggest that efficiency as a decision parameter for using digital media in RE lessons could lead them either to refrain from using digital media altogether, or to limit themselves to digital methods already tried and tested. Such an approach, however, would be at the expense of the systemic-qualitative methodological competence of good RE (cf. e.g. "promotion of non-subject-specific social and methodological competence" as a criterion of the systemic quality of good RE according to Schröder 2022, 560) and avoids experiential points of contact with complex digital options more closely associated with the social environment. Nevertheless, it is understandable because the use of digital media is sometimes perceived by teachers as a great additional and timeconsuming effort. It takes quite a while until the class and/or teacher can work competently with a device (cf. Adam, Nord & Wagner 2022, 217; Adam et al. 2021, 231). Several hours of teaching can be necessary before students are able to present their results appropriately using digital tools:

"Well, I personally see this very critically. Especially for the presentation, my wish was more to be guided with pictures and information. Is it worth spending three school lessons on it? Maybe time should be spent considering how better to use this presentation form in the future." (B-9, S2-I, 1183-1186, translated by the authors)

In addition, a lack of installed technology in school buildings and classrooms was frequently highlighted. Digital devices are by no means available for every student, and RE shares this problem with other school subjects. The following sample response describes the situation:

"Mobile Internet-compatible devices are not available at every school, stable Wi-Fi even less so, the necessary software for digitally accompanied lessons does not (yet) exist, and there are no specialists to take care of the hardware (instead, reference is made to the system administrators, although this is not their job), the user interfaces of the platforms are sometimes very outdated and unclear, as well as not very intuitive (Mebis would be a prime example here, which is considered by students to be extremely unattractive and not very transparent), it takes a huge amount of time until the class or I myself can work competently with a device [...]" (FB-7, 6675-6683, translated by the authors)

The lacking structural implementation of technology, and the discernibly missing response that using digital media could be perceived as successful compared to the alternatives, leads to a disproportionate cost-benefit calculation for such media. Teachers of religion are patently heavily occupied with the benefits of use and the barriers to use regarding digital media. The willingness of teachers to use digital media is measured by the parameter of effectiveness and therefore represents a relevant dimension for RE in a digital culture, as it does for other school subjects. However, what characterizes Religious Education in a digital culture goes far beyond this dimension and is far more complex. Neither in the lessons nor in the interviews did it become apparent to us whether the teachers and/or students understand digital education holistically, i.e. also as personality development and in terms of content, e.g. in the sense of acquiring and reflecting on digital religion (cf. Chapter 2). It should be noted that in the observed teaching of RE and the surveys performed, digitality was viewed from a foreshortened perspective as a method, technology or barrier, without religious reference (cf. chapter 3.2). In relation to digitality, RE seemed to be viewed as just one school subject among many. RE is therefore equally unable to escape the barriers of technology implementation and focus on efficiency.

At the same time, we are familiar with the frequently used double meaning that RE is (or is not) a subject like any other. The areas of tension that arise from the fact that, on the one hand, RE is a regular school subject but, on the other hand, educates in line with religious orientations - in part also denominational ties - are very familiar, for example with regard to the grading

situation in RE. Human beings are not to be judged solely by their performance, even if grades also have to be awarded in RE. Precisely such ambivalences surrounding this school subject should not be ignored when dealing with a culture of digitality. There is no reason why digital teaching and learning in RE should not be oriented towards and contain elements of effectiveness, for example. This could even become an important task in the future. At the same time, however, productive subject-specific questions can be asked with regard to efficiency: when does digitality add value to teaching and learning, and in which cases are teaching and learning in RE to become more effective through digitality, even when implemented routinely? If, however, the logic of optimisation, here in the sense of categories such as efficiency and added value, is over-focused, valuable components of what it is to be human, and thus of religious and religion-related education, are lost from view. Productive aspects of digitality, as addressed in relation to inclusion or self-direction, for example, can be distorted to become the opposite if the horizons of reflection provided by religious and faith-based education, which are related to this subject for good reason, are not taken into account.

#### 3.2.3 Self-determination and self-control in religious pedagogical reflection

According to a result from a quantitative research study in RELab digital, student teachers of Protestant religion are more willing to use digital media if they expect them to lead to a manner of working and communicating which is temporally and spatially autonomous, as well as self-efficacious (cf. Gennerich et al. 2021, 3). In teacher training it should therefore be investigated whether students are aware of the difference between autonomous and self-efficacious in a religious educational sense, and autonomous and self-efficacious in the context of digital learning. We suspect that their conceptions are fed in part by digital narratives circulating in the literature and barely reflected here.

The digital narrative of enhanced learning has long since found its way into Religious Education and pedagogy: digital promises for learning, such as the "hope of new ways of cooperating and

**Communication** communicating" (Gonjy 2020, 49, translated by the authors) and improved conditions for diversity-oriented or more self-determined and self-regulated learning are just a few examples (cf. also Nord & Petzke 2023). The buzzword 'self-determined learning' has in particular been formulated in many different places, from church to scientific publications, as a necessary educational task to be taken up under the pandemic conditions. In the process it has often been embedded within RE horizons: "self-determined participation in the digital society" (KMK 2016, 10) is to be realised as an educational goal via self-determined learning. Expressed in the wake of argumentations like

this: via digitality learners can act in responsible freedom and are thus empowered "[...] to a self-determined and mature handling of the digital world [...]" (Gojny 2020, 43, translated by the authors). Following this logic, they are then capable of **Community** participating in the digital community.

More precisely, however, *self-determined* and the synonymously used *self-regulated*, *self-organised* or *autonomous* learning (cf. Perels et al. 2021, 46) cannot necessarily be equated with the understanding of self-determination in Religious Education. In the context of Religious Education, the meaning of the word self-determined can of course correspond to a religion-related understanding of education reinforcing the value of freedom. In theological terms, this can be translated as empowerment to self-accounted freedom. The fact that digital communications offer potential for self-determination and the development of autonomy, also

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in the sense of experiencing a relative and thus relationally accountable freedom, cannot simply be assumed in principle. Digital

communications can just as well produce paradoxical effects, such as exclusion and loss of autonomy. How is this tension to be dealt with in the context of learning processes, especially when they are considered self-regulated or self-responsible, but the immanent and possibly unconscious framing of a learning process corresponds, for example, to functionalised selfoptimisation? The marker of autonomy can offer orientation here, although autonomy and relative freedom, as it is often called in the theological context, are by no means the same thing. There is no scope to elaborate this further here. In any case, a productive challenge for religious didactics remains. What significance does reinforcing the experience of autonomy through digitality have for lesson design? How will references be made, also religion-based and thus contextually, to efforts of human beings to assert their autonomy over other human beings, creation and, in particular, technology? And does the experience of autonomy fit in with the experience of a life with God?

Especially for the adolescent phase of child development, the experiencing of autonomy is a key moment in personal development. Since we consider the aspect of autonomy development to be very relevant within a future-oriented adjustment of RE, we will deepen this aspect in the following to a further example: the digital narrative of self-regulated learning. It stands for the ability to "guide one's own thoughts, emotions, and actions purposefully [...]" (Perels et al. 2021, 46, translated by the authors), i.e. serving the learning goal while taking into account cognitive, motivational and metacognitive components. According to Fischer et al. (Fischer, Fischer-Ontrup & Schuster 2020, translated by the authors), the goal of self-regulated learning

in the digital setting is a technologically supported maximisation of the learning effect. This is learning in the sense that the self is regulated in favour of efficiency. In other words, a person functions in such a way that permits efficient learning. This ability is demonstrated when learners mute their smartphones to avoid distraction, regulate their emotions in favour of those benefitting their performance, or review their learning process, for example. In short, (learning) strategies of all kinds are used to functionally regulate themselves in the best possible way so that the time spent learning and the overall learning process are effective (cf. Perels et al. 2021, 46, translated by the authors). In essence, this process corresponds to functional selfoptimisation for 'improved learning'. Elsewhere, it is also referred to as self-enhancement. In a broad sense, an educational experience can certainly be understood as a beneficial further development of the self, and in this respect can incorporate effective parts, or not. But if the enhancement is digitally controlled, the question arises as to who decides whether a measure is beneficial, and who standardises that decision. The app? An algorithm? Or to put it another way: to what extent is the human being made better? And what does Authority 'better' mean here? And who has the authority to decide?

Learners now routinely use digital control mechanisms in apps with simultaneous feedback which e.g. track learning times on an AI basis and tell learners when and how to take a break, or what they should repeat and how, in order to shape their learning process most economically. Digital learning here serves self-optimisation. Enhancement can thus be combined within educational optimisation processes:

"In the whole education debate we do not necessarily have to limit optimisation processes to specific cognitive and physical skills that relate to learning, however, but can also understand enhancement as character self-optimisation. This improvement of individuals in their abilities includes both the practice of virtues and various learning and mnemonic techniques, as well as various forms of personality formation and maturation." (Hähnel 2020, 80, translated by the authors).

Technological / digital enhancement is thus complemented in its effect size by performative self-efficacious enhancement. But what is actually optimised by technology-based enhancement processes, and to what depth of intervention? (cf. Hähnel 2020). Is this a matter of learning gains, of punctual performance increases in the service of education? Or is it already a digitally conditioned expansion of the depth of intervention of a standardised conception of human functioning? (cf. Hähnel 2020, 74 ff.) For "[w]hether or not someone is educated depends mostly on factors that elude the logic of optimisation (e.g. of enhancement), for example specific personality dispositions such as aesthetic sensibility and capacity for

differentiation, the ability for self-distancing and self-criticism, etc." (Hähnel 2020, 77, translated by the authors) This is certainly even more exacerbated for the religious concept of education implying Christian conceptions and images of humanity. Where is the 'educative limit' to the depths of intervention when eliminating personal motivation or concentration deficits, i.e. self-regulation deficits, as distinct from an intervention in the autonomy of the personality? And how much authority over this do we give to a technology developed in a commercial context?

Alongside the narrative of self-determined learning are the ubiquitous quality of digital media and the possibility of personalising digital applications. They, too, are often marketed as a promotion of autonomy in the sense of self-determination and self-regulation and as a higher degree of individualisation (cf. Bradtke 2021) through digital tools.

"Time-shifted communication techniques [...], enable more self-regulation. The speed of work and individual learning progress can be individually adjusted, for example, by repeating interactive learning videos as often as desired, or by using supplementary information provided." (Happel 2020, 3, translated by the authors)

Increasingly, digital media (cf. Horz 2020, 150) can be used to support students who, due to various barriers, disabilities or periods of illness, are unable to participate in school at all or only infrequently, as well as learning groups within which there are very different learning situations or different native languages spoken, and so on. However, complex preconditions are required for self-determined learning to have at least a partial effect with regard to the learning

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pace or learning path, i.e. in a theologically reflected understanding of autonomy. In addition to adequate organisational framework

conditions, the appropriate instructional design and necessary learning backgrounds are only some of the necessary conditions. Cognitive and emotional overloads due to high self-regulation requirements or due to overly complex instructional designs must be didactically considered (cf. Horz 2020, 151, translated by the authors). Once they have been didactically considered, an increase in the realisable learning opportunities may open up for some students. But can suitable conditions really be generated in sufficient quality and quantity to unfold self-determined learning, in the sense of extended autonomy, for all pupils? And in this process does 'man' have to adapt to 'the machine' or rather 'the machine' to 'man'? (cf. Petzke & Schweiker 2023, 248, translated by the authors) Furthermore: do humans have to make themselves capable of participating? Which measures should the teacher take where in order for everything to fit

so that the goal of creating digital participation for all can be achieved? Should the human beings be addressed? The machine? The teacher's own competencies? Some students, e.g. those with experience of disability, neurodiverse dispositions or in need of emotional support, may be structurally disadvantaged if their individual starting points do not match the usage requirements, such as the self-regulation requirement, regardless of whether the digital user interface can be individualised or not. The narrative of more participative opportunities through the individualisation opportunities offered by digital media is therefore not unrestrictedly valid. Far more, selective questioning of the respective design of individuality and the criteria by which that individuality is measured would be necessary, as well as whether the degree of individuality determines the level of participation, or whether, for example, this is merely a case of superficial design options in the sense of customising (cf. Petzke & Schweiker 2023, 248).

The use of digital media in the classroom thus raises questions not only about the suitability for education, but also about the relationship between human beings and technology. Pupils interact with technical devices on a daily basis and are first and foremost customers and consumers for the device manufacturers, whose intention is to bind them to a brand or software. Pupils are taught to participate in the digital world, and this often means that their behaviour as device users is partly formed at school. The allocative function of school here gains a new facet: whereas it could previously be said that school and school education serve to adapt pupils to society, we are now additionally aware that school pupils are being adapted to certain hardware and software products. Concepts of diversity-oriented religious education thus raises additional questions which critically and constructively challenge any general talk of digitalisation as promoting individual and self-determined learning. For whom, and under which conditions, does digital self-determined learning represent a good educational opportunity?

## 3.3 A brief contextualisation

Digital narratives about teaching make us realise how necessary it is to view them distinctly and specifically in the context of RE because neither optimistic promises nor prophecies of doom regarding the potential of digital media provide the reference to reality which religious education needs if it is to be relevant and life-serving. Without an awareness of its own scope of reference, RE could become alienated from its purpose instead of developing further, as illustrated by the parameters described above. However, this should not lead to a pessimistic distortion of digitality, but rather point out the resources which religious education has at its disposal: dealing sensitively with the dynamics of digitalisation and using competences which religious educators already have.

## 4 Productively absorbing tensions

During the reflections in RELab digital on the empirical results, it became increasingly apparent that non-individual convictions exist in connection with digitality that have not yet been recorded in terms of their impact. The attitudes of religious teachers (Adam et al. 2021) and trainee teachers (Gennerich et al. 2021) researched in the RELab digital sub-studies offered first orientations, but did not explain the picture held in digital cultures by the profession at large that was visibly impactful in the material collected. In a sense that may almost be called theological, we therefore ask extremely broadly: What do teachers really think about using digital media and reflecting on a digital culture in RE? What kind of realities and truths have they internalised? What ideas and assumptions do they have "[...] about school- and classroom-related phenomena and processes with an evaluative component" (Horz 2020, 450, translated by the authors)?

## 4.1 Tensions in the professional concept of a teacher's self

Debates about digitalisation and mediatisation in the education sector sometimes position teachers in the role of learning facilitators. In contrast, how do teachers perceive their role in digitally based RE lessons?

"[...] I think the older teachers are just not used to it. They are experts through and through. And when it comes to a subject area where students might already know something – or might already know more; yes, definitely know more - it's perhaps difficult." (EI-1, 4822-4826, translated by the authors)

This example illustrates how tensions are perceived by some teachers regarding their professional image. It can be assumed that a conflict arises because immanent in practice is a role perception held by teachers of themselves as experts and of the students as novices, in the sense of a cognitive-psychological expert-novice paradigm (cf. Gruber, Scheumann & Krauss 2019, 60).

"Not to mention that I was aware from the outset that my students now know far more than I do about these things." (AI-S1-I, 3012, translated by the authors)

The implied entitlement to 'know more [than the students]' lead us to assume that this is the case. The students serve the teachers as a benchmark for their own expertise. They compare

themselves with them: "I'm sure the students will figure that out faster than I will." (C1-S1-I, 41, translated by the authors)

The social order between teachers and students is reversed in the digital world, as some teachers have put into words as follows:

"Because then you quickly find yourself in the position of the learner in the middle of your own class. The students are digital natives, while you yourself are insecure." (FB-7, 6702, translated by the authors)

For these teachers, their authority in the classroom is disturbed, they find their role as experts vis-à-vis their students impaired by digitality, and a loss of autonomy is visible. But is the

egalitarian perception of students as digital natives which is contained within these teachers' statements (cf. Prensky 2001)

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consistent with the findings? It is now known that young people are subject to delusions of digital competence, on the one hand self-attributed, and on the other attributed to them by third parties, e.g. teachers (cf. Ihme & Senkbeil 2017). ICT literacy, for example, are only marginally acquired through private experience in the areas of leisure, entertainment or social media and the development of competencies depends on factors such as the socio-cultural status at home (cf. ibid.). Unfortunately, there are no sufficient findings available on religion-related digital skills or perceptions among children and adolescents independently of general ICT.

However, on the basis of general field observations, we do not assume that students act consciously, religiously and with religious competence within the field of digital religion(s). The external reference of teachers to students perceived homogeneously as digital natives can therefore be interpreted as an identity-forming othering process, in which students become a generalised foreign group. The comparative self-reference to this foreign group tends to be negative in the teachers' statements on digitality to date and remains unconnected to religious professionalism. Changes in the social order and communication within the classroom, as can

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also be seen in issues of authority, are therefore viewed as an unsettling experience. Under certain circumstances, this can even

lead to a subjectively perceived loss of sense on the part of the teachers:

"So what I think you notice is that you just... you have a certain group of kids, and they almost don't need you anymore, right?" (AI-S3, 3660, translated by the authors)

The tangible desire of teachers to be needed, which for some is the main purpose of their

profession and even their professional identity, is here reduced or even eliminated. Against the background of such sense-related

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structures and the expert-novice paradigm, anxiety or reservations were regularly voiced in the interviews, which we interpret as an indication of emerging (emotional) barriers:

"I am... what I said earlier – we are experts. And a lot of people are afraid, 'Oh, it won't work, and then I'll look stupid in front of the class. And then it doesn't work. And oh God, and then what do I do? And then the... and then they will laugh at me.' Or something like that. I think that's the fear behind it." (EI-1, 4961-4965, translated by the authors)

"But I think a lot of it is just reservations because for one thing it has something to do with stepping aside. Ehm... I think you have to sort that in your own head. So I wrestled with myself for a long time because I realised... ehm... I want to be the one managing the lessons." (EI-2, 5325-5328, translated by the authors)

Our interviews with teachers show that, for some, a connection is hardly made between their pedagogical expertise in religious education and their perceived digital expertise. However, awareness of the interconnectedness of religious and digital content, for example in the form of digital religions or of own competencies from religious education processes, could be made useful, at least in part, where ICT literacy is not effective. In contrast to the approaches just described, completely different possibilities of interpretation open up for teachers who also draw on their religious expertise in their teaching role: "The students are experts in their [digital] world - I can enter into a dialogue with that [...]. I bring my experience, my theological expertise and my demonstration of faith (not meant as piously as it sounds)." (FB-2, 6157-6159, translated by the authors) In our view, the reference to self and others in this statement is resourceful, in contrast to the deficient perception within the expert-novice paradigm.

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Autonomy, in the sense of a subject orientation in pedagogy, can be preserved in this model for students and teachers alike, in line

with their needs and life-worlds. Both sides can initiate appreciative contributions and (religious) communications. One methodological example of this is so-called reverse monitoring, which provides a social resource through cooperative learning (cf. Horz 2020, 150):

traditional mentoring structures are reversed (cf. ibid). Learners who are more familiar with digital media due to significantly

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greater usage pass on their knowledge of processes and their experience with digital media to less experienced teachers and learners, and are appreciated for this (cf. ibid.). In return, the teachers share their didactic methods and content-related expertise with the learners (cf. ibid.). A bidirectional subject orientation, to both the students and the teacher, facilitates a concept of self within the profession which does not require any comparison between the teacher and the students.

However, the fact that teachers perceive themselves as deficient with regard to digitality does not necessarily go hand in hand with the tensions in the role of teacher focussed on in this chapter so far. In RELab digital, self-perceptions were also expressed outside of such contexts, for example as follows:

"So you always feel like something is missing, or very, very... technology teaches you to feel like that very quickly. In the sense of 'you can't do that or... you're no good at that yet, or something like that'. You immediately feel... inferior is too hefty, but very, very inadequate." (EI-2, 5394-5397, translated by the authors)

These statements open up further far-reaching questions, particularly concerning professional and personal self-confidence vis-à-vis digitalisation processes in the perception of the role of the teacher and the ideals associated with it.

### 4.2 Professional development and requirements

A professional approach to digitalisation processes in the school sector and specifically in RE requires not only the setting of target requirements, but also the identification of limitations to development, responsibility and performance. The logic behind the demand for more ICT literacy among teachers makes it reasonable to expect that the profession will regularly be accused of lacking digital competence, and that teachers will accordingly experience a deficit in the discrepancy between professional ideals, self-image and their relationship with students. Therefore, not only should "[...] changes in the role of the teacher, which are caused by the digitalisation of school and the culture of learning [...]", (EKD 2022, 50, translated by the authors), be reflected on using processes surrounding digital religious education, but also limitations to the actions of teachers. Teachers should be given the opportunity to consciously develop positions and action strategies for their role. This requires learning spaces in e.g. teacher training in order to be able to deal appropriately with secondary processes of change with regard to social order or individual teaching roles. From a professional point of view, this entails the systemic task of providing religious education resources to enable this to be dealt

with successfully. Challenges which a life in digitality and teaching digital religions education pose for the individual teacher should therefore be brought into relationality with religious education resources and expertise. We consider it advisable, or rather indispensable, to practice and test this interconnectedness of digitality and religious education and its reflection as early as the teacher training phase. This is because ideas, schemata and scripts, which also have affective components, firstly act as filters for the perception and classification of digitality and teaching. Secondly, they have a direct impact on teachers' actions, for example when efficiency becomes the causal criterion for media use, and digital media are therefore not used, or when the lesson flow breaks down and religion-related, as well as religious competencies of teachers are not put to good use.

"The acquisition of digital competence is central for teachers and also for religious education" (ibid., 64, translated by the authors). These competences (cf. chapter 3) should also include the following awareness of teachers in the face of digital related disruption: "I always have to have a solution, i.e. a possible teaching course of action, but I don't always know the solution [to every digital related disruption]." (EI-1, 4820-4821, translated by the authors). Not without reason, or in our view very plausibly, the KMK speaks, for example, of a "strategy of education for the digital world" and uses formulations such as "competencies for a life in the digital world" instead of digital competencies (KMK 2021). From the perspective of religious education, this broadening of the focus is very welcome. It brings the usefulness of digital culture for everyday life back into focus. Aspects of human needs regarding communication can be well incorporated. It also makes it possible to explore the limits of viability. It is precisely at these limits that religion often becomes a topic because here it becomes clear that neither teachers nor students can themselves vouch for their intentions regarding teaching and learning processes.

In summary, it is then no longer simply a matter of learning further skills, but of shaping the risky and challenging transformation towards a life in the digital world. Religion in particular is susceptible to simplifying such processes because religious cultures are open to fundamentalism. To some extent, they play to an understanding of truth that enables people to

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circumvent complexity. This is particularly evident at the limitations to human sovereignty in digital worlds. The danger

of religious fundamentalism opens up at the diversity of options and interpretations of the world that are also discussed, for example, in digital public spheres for a productive development of digital culture. It is a viable option to train people in RE to deal with the truths up for debate here. Learning to examine and evaluate truth claims is vital: if a truth is claimed, how is it integrated into communication? Is an exclusivist, inclusivist, or pluralist model of truth ascertainment the orientation? Is a claim to truth seen as a personal position or is it supposed to have objective validity? Media ethics is not the only major topic here, but also the necessary criticism of religion wherever and whenever fundamentalist manifestations of religion overstep their bounds.

## **5** Conclusion and outlook

The teachers who agreed to participate in the various exploratory studies within RELab digital strongly referred to narratives that we have reflectively presented here: acquisition of digital competencies, efficiency, digitalisation as a teaching technique, new learning methods that promote potential for self-determination and individualisation in the classroom, and last, but not least, the uncertainty of dealing with disruptions in the classroom. The topic of digitality in RE was primarily understood in terms of use of technology, which had to be evaluated under the parameters of narratives regarding the need to promote or teach digital competencies and to provide good digital lessons. All too often, it seemed that teachers attributed a failure to meet these ideals to themselves, or that they believed that students attributed this failure to them. From this starting point, this text has explored in an exemplary, but by no means conclusive manner, situations of tension which can guide a thoroughly constructive-critical process and a reflection on the professional concept of 'the RE teacher', as well as provide specific insights and orientations for RE teacher training. Reflecting on a situation in which the use of digital media fails can initiate groundbreaking changes for dealing with digital media and, even more, with a culture of digitality.

In order to identify hinge points at which digital communication could change religion-related and religious communication in RE, we have addressed in this religious didactic reflection basic human needs that religions have always availed themselves of: religion/religiosity, community, autonomy, identity, authority, truth, ritual and communication. They open up the major conceptual complex of religion in their own way, making it more tangible. At a time when exclusively accessing tradition in lessons seems less and less plausible, these markers open up the possibility of leading RE back to its themes, especially those of an existential nature. Through the lens of psychological needs, personal interests and ties to the subject of religion can be addressed. For RE which is future-proof, moving the human need for religion/religiosity into the spotlight of consideration could be key. However, this should not be done in such a way that children and young people are permanently questioned about their position regarding 24 a tradition, but instead that they are given the opportunity to get to know different traditions and what they have to offer. For many pupils, it might be new territory to perceive that religions offer something for the fulfilment of existential human needs. Here, therefore, further concepts and more comprehensive religious education work is needed in order to profile Bible didactics, theologising, symbolic concepts of religious education or performative learning in such a way that traditions can be passed on to children and adolescents in a way that fulfills their needs. At the same time, the ambivalences of digitalised religious cultures and their failure - in Christian terms, in the service of the Gospel - can be grasped critically.

Finally, it was striking how little digital religion was of concern to the RE teachers or trainee teachers we interviewed. We do not assume that they are all without contact to formats of digital religion, but instead that use of these formats is hardly present or conscious to them, or that it is unclear to them whether these formats belong to the canon of religious education reflection. Accordingly, an important research focus will be to deal with this field in more detail: It will be necessary to ask (prospective) teachers of religion about their usage and expectations of digital religion. On the one hand, we lack an elaborate theory of religious media socialisation (cf. Nord 2021); on the other hand, processes of media productivity should be initiated that allow digital religious practice to be understood as a high-quality educational task for RE, i.e. in connection with its traditions or in critical-constructive further development of them. This is happening, for example, in Digital Teaching-Learning-Labs which are currently being installed in many different locations. More intensively, this is provided by the project CoTeach already mentioned in the diagram (chapter 2). It is dedicated to first components in a scientifically elaborated adaptation and creation of digital technology in RE. CoTeach works with so-called tech-probes which initially help to reflect on religious practice, but also critically question established religious practices by irritating and provoking. This occurs, for example, on the topic of religious blessings, as can also be found in the general digital culture on social media - e.g. in short messages which pass on good wishes or even explicit blessings -, but also with installations produced specifically for RE. Virtual realities make it possible within the framework of didactic concepts of trial actions to e.g. visit various blessing locations or to slip into the role of a Minister pronouncing the Aaronic blessing at the end of a church service. Both trial actions provide scopes for reflection about the significance which a blessing, blessing others, and being blessed have for a person.

It is an exciting and still largely unresolved question which subject-related competencies in the field of digital religion will be particularly important for religious teachers in the future?

Upcoming revisions of the RE curriculum lend an explosiveness to this question. In the challenge of fundamentally reflecting on the interdependencies between digitality and religion in religious education, the processes of *digital religion education* must also be considered: on the one hand, these open up digitality and RE in terms of religion as well as religiously and, on the other hand, cross-subject competencies, such as ICT or classroom management, can be adapted subject-specifically. These tasks are part of a new stage within the research on digital change in educational culture, to which religious education and its religious pedagogical theory, as well as its empirically grounded practice, can contribute significantly.

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## Literature

Adam, Oliver (im Erscheinen) Diss.: Medien als Akteure. Eine qualitative Untersuchung zur Handlungsträgerschaft von Medien im Religionsunterricht.

Adam, Oliver; Deniffel, Jürgen; Nord, Ilona, Gennerich, Carsten & Palkowitsch-Kühl, Jens (2021): Digitales Lernen soll mobil und lebensrelevant sein. Eine Befragung von Studierenden der Religionspädagogik. In: Theo-Web. Zeitschrift für Religionspädagogik 20(2021), H.2, doi.org/10.23770/tw0221. S. 230–240.

Adam, Oliver, Nord, Ilona & Wagner, Elke (2022): Digitalisierungsprozesse im Religionsunterricht. Das Forschungsprojekt Religious Education Laboratory digital (RELab digital). Ein soziologischer Zwischenbericht. In: Kristin Merle & Ilona Nord (Hrsg.): Mediatisierung religiöser Kultur. Praktisch theologische Standortbestimmungen im interdisziplinären Kontext. Leipzig: Evangelische Verlagsanstalt (Veröffentlichungen der Wissenschaftlichen Gesellschaft für Theologie (VWGTh)), S. 213–226.

Bradtke, Julia (2021): Individualisierung als Beitrag zu einem schüler/-innengerechten Religionsunterricht mit exemplarischer Betrachtung der sozialen Heterogenität. Eine kritische Reflexion. In: Bernhard Grümme; Thomas Schlag & Norbert Ricken (Hrsg.): Heterogenität. Eine Herausforderung für Religionspädagogik und Erziehungswissenschaft. Stuttgart: W. Kohlhammer, S. 152–164.

Burkhard, Johannes (2017): Die Reformation – Religion als Medienereignis. In: Ilona Nord & Hanna Zipernovszky (Hrsg.): Religionspädagogik in einer mediatisierten Welt. Religionspädagogik innovativ 14. Stuttgart: Kohlhammer. S. 95–103.

Campbell, Heidi (Hrsg.) (2021<sup>2</sup>): Digital Religion. Understanding religious practice in new media worlds. London: Routledge.

Dietzsch, Andrea (2020): Die Beziehung zwischen Lehrenden und Lernenden im Religionsunterricht – Bedeutung für das Lernen und Impulse für den digitalen Religionsunterricht. In: Theo Web 19 (2), doi.org/10.23770/tw0152. S. 34–49.

Dietzsch, Andrea & Pfister, Stefanie (2022): Digitaler Religionsunterricht. Stuttgart: utb.

Drechsler, Barbara & Schindler, Ann-Kathrin (2019): Unterrichtsqualität. In: Detlef Urhahne; Markus Dresel & Frank Fischer (Eds.): Psychologie für den Lehrberuf. Berlin, Heidelberg: Springer. S. 353–372.

Evangelische Kirche in Deutschland (EKD) (2022): Evangelischer Religionsunterricht in der digitalen Welt. Ein Orientierungsrahmen. EKD Texte 140. https://www.ekd.de/digitalisierung-religionsunterricht-71588.html (01.06.2023).

Fischer, Christian; Fischer-Ontrup, Christiane & Schuster, Corinna (2020): Individuelle Förderung und selbstreguliertes Lernen. Bedingungen und Optionen für das Lehren und Lernen in Präsenz und auf Distanz. In: Detlef Fickermann & Benjamin Edelstein (Hrsg.): "Langsam vermisse ich die Schule …". Schule während und nach der Corona-Pandemie. Die Deutsche Schule: Zeitschrift für Erziehungswissenschaft, Bildungspolitik und pädagogische Praxis. Beiheft; 16, doi.org/10.25656/01:20234. Münster/New York: Waxmann. S. 136–152.

Gärtner, Claudia; Hans, Anna; Tacke, Lena & Thanscheidt, Anika (2020): Erfolgreich vernetzt? Über Chancen, Hürden und Gelingensbedingungen digitaler Lehre in der Religionspädagogik. In: Theo Web 19 (2), doi.org10.23770/tw0152. S. 18–33.

Gennerich, Carsten; Palkowitsch-Kühl, Jens & Nord, Ilona (2021): Adaption digitaler Medien und Wertorientierungen zukünftiger Religionslehrkräfte: Auf den Weg zu einer Typologie. In: Theo-Web. Zeitschrift für Religionspädagogik 20(2021), H.2, doi.org/10.23770/tw0222. S. 241–263.

Gojny, Tanja (2020): Digitalisierung und Religionsunterricht. Die Gelbe, o. Jg., 2, S. 41–57.

Gruber, Hans; Scheumann, Michael & Krauss, Stefan (2019): Problemlösen und Expertiseerwerb. In: Detlef Urhahne; Markus Dresel & Frank Fischer (Eds.): Psychologie für den Lehrberuf. Springer Berlin Heidelberg. S. 53–60.

Hähnel, Martin (2020): Erziehung zum Enhancement? Zur Rolle der Digitalisierung, Biomedikalisierung und Neurotechnologie in edukativen Optimierungsprozessen. In: Marc Fabian Buck, Johannes Drerup & Gottfried Schweiger (Hrsg.): Neue Technologien – neue Kindheiten? Stuttgart: J.B. Metzler. S. 73–84.

Happel, Joachim: Didaktische Orientierungshilfen für digitale Arrangements im Religionsunterricht. In: CI Informationen, 02:2020, S. 3–4.

Hassenzahl, Marc (2008): User experience (UX): Towards an experiential perspective on product quality. Proceedings of the 20<sup>th</sup> International Conference of the Association Francophone d'Interaction Homme-Machine on - IHM '08, (September), 11. doi.org/10.1145/1512714.1512717.

Herring, Mary C.; Köhler, Matthew. J. & Mishra, Punya (Eds.) (2016<sup>2</sup>): Handbook of technological pedagogical content knowledge (TPACK) for educators. New York: Routledge. doi.org/10.4324/9781315771328

Horz, Holger (2020): Medien. In: Elke Wild & Jens Möller (Hrsg.): Pädagogische Psychologie. Berlin, Heidelberg: Springer. S. 133–159.

Huizing, Klaas (2017): Deus und homo medialis. In: Ilona Nord & Hanna Zipernovszky (Hrsg.): Religionspädagogik in einer mediatisierten Welt. Religionspädagogik innovativ 14. Stuttgart: Kohlhammer. S. 119–130.

Ihme, Jan Marten & Senkbeil, Martin (2017). Warum können Jugendliche ihre eigenen computerbezogenen Kompetenzen nicht realistisch einschätzen? Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie. doi.org/10.1026/0049-8637/a000164.

KMKKultusministerkonferenz(2016):StrategiederKultusministerkonferenz"BildunginderdigitalenWelt"https://www.kmk.org/fileadmin/Dateien/veroeffentlichungen\_beschluesse/2016/2016\_12\_08-Bildung-in-der-digitalen-Welt.pdf (01.06.2023).

 KMK Kultusministerkonferenz (2021): Lehren und Lernen in der digitalen Welt. Die ergänzende Empfehlung zur

 Strategie
 "Bildung
 in
 der
 digitalen
 Welt".

 https://www.kmk.org/fileadmin/veroeffentlichungen\_beschluesse/2021/2021\_12\_09-Lehren-und-Lernen Digi.pdf (01.06.2023).
 Understand

Knoblauch, Hubert (2020): Die Refiguration der Religion. Perspektiven der Religionssoziologie und Religionswissenschaft. Weinheim/München: Beltz Juventa.

Krotz, Friedrich (2022): Die Teilung geistiger Arbeit per Computer: Eine Kritik der digitalen Transformation. Weinheim/München: Beltz Juventa.

Kumlehn, Martina (2015): Art. Bildung, religiöse. In: Wissenschaftlich-Religionspädagogisches Lexikon im Internet. doi.org/10.23768/wirelex.Bildung\_religise.100082.

Leonhard, Silke (2019): Religionspädagogische Professionalität. Eine empirisch-theologische Studie im Horizont des Pathischen. Göttingen: V&R.

Leutzsch, Martin (2017): Medien in der Bibel – Bibel als Medium – Bibel in den Medien. In: Ilona Nord & Hanna Zipernovszky (Hrsg.): Religionspädagogik in einer mediatisierten Welt. Religionspädagogik innovativ 14. Stuttgart: Kohlhammer. S. 61–79.

Lohmann, Gert (2003): Mit Schülern klarkommen: Professioneller Umgang mit Unterrichtsstörungen und Disziplinkonflikten. Berlin: Cornelsen Scriptor.

Merle, Kristin & Nord, Ilona (Hrsg.) (2022): Mediatisierung religiöser Kultur. Praktisch-theologische Standortbestimmung im interdisziplinären Kontext. Veröffentlichungen der Wissenschaftlichen Gesellschaft für Theologie (VWGth), Band 58. Leipzig: Evangelische Verlagsanstalt.

Nord, Ilona (2021): Religiöse Sozialisation von Jugendlichen in mediatisierter Welt: Ausgangsfragen und Zielsetzungen. In: Wolfgang Beck; Ilona Nord & Joachim Valentin (Hrsg.): *Theologie und Digitalität: Ein Kompendium*. Freiburg im Breisgau: Herder. S. 257–280.

Nord, Ilona & Petzke, Judith (Hrsg.) (2023): Religionsdidaktik diversitätsorientiert und digital. Berlin: Cornelsen.

Nord, Ilona & Pirner, Manfred (2022): Religiöse Bildung in der digitalen Welt. In: Volker Frederking & Ralf Romeike (Hrsg.): Fachliche Bildung in der digitalen Welt. Digitalisierung, Big Data und KI im Forschungsfokus von 15 Fachdidaktiken. Münster/New York: Waxmann. S. 333–358.

Nord, Ilona & Zipernovzski, Hanna (Hrsg.) (2017): Religionspädagogik in einer mediatisierten Welt. Religionspädagogik innovativ 14. Stuttgart: Kohlhammer.

Palkowitsch-Kühl, Jens (2022) Diss.: Religions- und Ethiklehrkräfte in Digitalisierungsprozessen. Analyse von Bedingungsfaktoren für die Integration digitaler Medien in den Religions- und Ethikunterricht an weiterführenden Schulen.

Perels, Franziska et al. (2021): Selbstregulation und selbstreguliertes Lernen. In: Elke Wild, & Jens Möller (Hrsg.): Pädagogische Psychologie. Berlin, Heidelberg: Springer. S. 45–68.

Petko, Dominik (2012): Teachers' pedagogical beliefs and their use of digital media in classrooms: Sharpening the focus of the 'will, skill, tool' model and integrating teachers' constructivist orientations. In: Computers & Education 58 (4), doi.org/10.1016/j.compedu.2011.12.013. S. 1351–1359

Petzke, Judith & Schweiker, Wolfhard (2023): Zwischen gedacht und gemacht: (Sonder)pädagogischer Förderbedarf und digital gestützte Lehr-/Lernsettings. In: Ilona Nord & Judith Petzke (Hrsg.): Fachdidaktik Religion: diversitätsorientiert und digital. Berlin: Cornelsen. S. 239–250. Prensky, Marc (2001): Digital natives, digital immigrants part. On the horizon. MCB University Press, Vol. 9 No. 5.

Punie, Yves & Redecker, Christine (2017): European Framework for the Digital Competence of Educators: DigCompEdu Publications Office of the European Union, Luxembourg, 2017, doi.org/10.2760/178382 JRC107466.

Schlag, Thomas & Nord, Ilona (2021): Art. Religion, digitale. In: Wissenschaftlich-Religionspädagogisches Lexikon im Internet. doi.org/10.23768/wirelex.Religion\_digitale.200879.

Schröder, Bernd (2022): Religionspädagogik. Tübingen: Mohr Siebeck.

Stalder, Felix (2016): Kultur der Digitalität. Berlin: Suhrkamp Verlag.

Tight, Malcolm (2021): Twenty-first century skills: meaning, usage and value, European Journal of Higher Education,11:2, doi.org/10.1080/21568235.2020.1835517. S. 160–174.

Tulodziecki, Gerhard; Grafe, Silke & Herzig, Bardo (2019): Medienbildung in Schule und Unterricht: Grundlagen und Beispiele. Stuttgart: utb.

Wagner, Elke; Nord, Ilona & Adam, Oliver (2023): Digitalisierung als Störung? Zum Einsatz digitaler Medien im Religionsunterricht. In: MedienPädagogik: Zeitschrift für Theorie und Praxis der Medienbildung, 2023 (Occasional Papers), doi.org/10.21240/mpaed/00/2023.03.28.X. S. 1–21.