Digitalisation Strategy

For years, digital transformation has been both a challenge and an opportunity for society. In many ways, digitalisation is creating new perspectives and possibilities for dealing with information, making participation processes more flexible, and gradually changing established standards, not least in science. For some time now, the funding agencies of the European Union, the German federal government, and the German states have also been paying closer attention to digitalisation in directing their programmes and funding lines. Social upheavals resulting from the coronavirus pandemic in 2020 and 2021, the long-term consequences of which are still hardly foreseeable, have increased the momentum of these developments.

The University of Oldenburg is an academic meeting place, a place of research and learning, a dynamic workplace, a driver of innovation and transformation, and an open institution of higher education. Diversity, equality and internationalisation are actively promoted. In the area of digitalisation, the university is translating this self-image into a university-wide strategy. This digitalisation strategy formulates overarching objectives for digital transformation at the university (I), guidelines for designing digital processes in line with the objectives (II) and fields of action in which digital developments are taken up and implemented in the form of strategic measures (III). Special attention is being paid to matters of studying and teaching, including the evaluation and application of pandemic-related lessons, since primarily digital teaching and learning formats became necessary temporarily in 2020.

The further development and implementation of the digitalisation strategy is coordinated and steered by the Digitalisation Strategy Group under the leadership of the member of the Presidential Board responsible for digitalisation.

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I. OBJECTIVES

The long-term objectives of the digitalisation strategy at the university are driven by the intention not to pursue digitalisation as an end in itself, but to consciously advance it based on specific needs and identified areas of potential.

1. Digitalisation promotes participation

Digitalisation not only serves to transfer knowledge, insights and technologies to society and the economy, but also encourages the public and public institutions to participate in university processes related to studying, teaching and research. The use of digital tools, methods and media appropriate to the target audience fosters the involvement of people from diverse walks of life.

2. Digitalisation promotes the transformation of the workplace

From a university-wide perspective, the responsible use of digital tools, methods and media allows work flows in studying and teaching, research, transfer and administration to be more efficient, effective and flexible. Digitalisation can thus contribute to the modernisation of the workplace and an improved work-life balance.

3. Digitalisation promotes transparency

The digital mapping, steering and monitoring of teaching, learning, research and administrative processes create greater transparency for all those involved in the process.

4. Digitalisation promotes quality assurance

The potential of digital instruments for processing, analysing and evaluating transparent or accessible data promotes quality assurance in studying and teaching, research, transfer and administration, thereby opening up new possibilities for quality management.

5. Digitalisation promotes the development of digital literacy

The use of digital tools, methods and media as well as the promotion of knowledge, skills, concepts and approaches suitable for the digital age require a systematic development of digital literacy among the university's employees, students and young academics that takes note of diversity-specific aspects and involves continuous critical reflection.

II. GUIDELINES

The guidelines laid out in the digitalisation strategy provide goal-oriented instructions for using and expanding digitalisation in studying and teaching, research, transfer and administration.

1. Digitalisation standards

Within their staffing, financial and time-related capacities, process managers are to align digital administrative and other operational processes serving to meet the university's responsibilities with developing institutional standards. Process owners are responsible for regularly and critically reviewing the processes they are in charge of, and working toward the implementation of best practices.

2. Integration of related information

Different processes that work with the same information must be structured in such a way that information may be used across organisational units and processes. Integrative software solutions are preferable to those specific to a single process. Databases that can be used jointly must be equipped with access rights for process participants as required and in compliance with data protection regulations.

3. Quality of service

Within the context of the function assigned to them, and in compliance with relevant legal provisions, the university's organisational units are required to design the processes for which they are responsible and the information they generate in a service-oriented manner, making them digitally available to other stakeholders in a suitable fashion. Services of different organisational units are to be integrated in the same way as related information, if required and possible, by means of suitable structural and, if necessary, organisational solutions.

4. Internationalisation

Taking the needs of relevant stakeholders into consideration, the potential of digital tools, methods and media to contribute to the internationalisation of the university are to be used wherever possible, especially with regard to the translation of German-language information into English, and in making administrative and participatory processes accessible to international members of the university.

5. Digital literacy

As part of the professional development of staff as well as the qualification of students and young researchers, awareness is to be raised concerning the handling, application and thoughtful use of digital information, instruments, methods and media in science and administration. Diversity-specific aspects are to be taken into account.

6. Participation and openness

Aspects of equality and diversity must always be borne in mind when designing and managing university digitalisation. In this context, the possibilities of digital instruments, methods and media to contribute to the reduction of barriers for impaired and structurally disadvantaged persons must be systematically considered and applied towards the goal of accessibility for all. In order to sustainably promote participation, especially in the area of studying and teaching, the negative effects of increased physical distance between stakeholders to be expected in digital settings must be compensated for and, if possible, reversed. Within

their staffing, financial and time-related capacities, university employees in science and administration are required to make the processes for which they are responsible and the information they generate publicly accessible; legal provisions must be observed, and university obligations as well as public interests must be considered.

7. Innovation

In order to achieve the objectives of the digitalisation strategy, potential for innovation created by the introduction of new digital instruments, methods and media in organisational units and at the university at large must always be considered and implemented in line with staffing, financial and time-related capacities. Research and teaching staff, in particular, are to proactively use the opportunities offered by digitalisation to advance science and education in a sustainable fashion.

8. Open Science

Within their staffing, financial and time-related capacities, university employees in research, in particular, are required to make the entire process of their scientific work, for example in the form of publications, research data or research reports, accessible, verifiable and reusable in an appropriate manner; legal provisions must be observed, and university obligations as well as public interests must be considered.

III. FIELDS OF ACTION

Studying and teaching

In the area of studying and teaching, the university aims to further develop its teaching and learning formats by integrating digital spaces, tools, methods and media. In coordination with the schools, a requirement-oriented, interdisciplinary curriculum for promoting digital literacy is to be developed and anchored in the degree programmes. Particular attention is to be paid to teacher training. On a strategic level, innovative teaching-learning scenarios based on digitally enriched classroom teaching will be developed, tested and evaluated for use. The University Didactics Team in the Presidential Department for Study Affairs provides demand-oriented training and consulting services to instructors seeking to design and thoughtfully integrate digital elements into teaching and learning formats in the degree programmes.

Strategic measures:

_ Innovating digital examination as well as teaching and learning formats
_ Anchoring digital literacy in curricula
_ Expanding needs-based training and advisory services

Upon evaluating the findings of a needs assessment for the advancement of digital teaching initiated as early as 2018, and shaped by the experience of the coronavirus pandemic, the university has begun implementing concrete measures to permanently increase the quality of digital teaching across all disciplines. The participation of all stakeholders involved in studying and teaching, particularly with regard to aspects of diversity and equality, is to be the guiding principle for action.

Prioritised measures:

_ Improving staffing, infrastructural and technical prerequisites for digital teaching and learning
_ Introducing a central information and advisory portal for topics involving digital teaching and learning that integrates existing services
_ Expanding the state-level support and service network for issues related to digital teaching and learning

Research

In the spirit of Open Science, the university strives to make its research findings openly accessible. It is therefore committed to the principles of Open Data and Open Access. In particular, measures include developing a research information system and establishing a university-wide research data management system based on the FAIR principles. In addition, the university seeks to train and centrally provide research aids (virtual laboratories, measuring equipment, AI-based data analysis, digital media, etc.). As a long-term research perspective, the Central Research Funding and Consulting Team in the Presidential Department for Research and Transfer supports research on digitalisation across all disciplines and thus also contributes to transdisciplinary scientific investigation and monitoring of societal transformation processes in the wake of digitalisation. The output of scientific activity at the university is reflected by publications, including open access publications, as well as various (digital and non-digital) forms and formats of scientific transfer to business and society.

Strategic measures:

_ Promoting digital infrastructure to make science more transparent and reproducible
_ Promoting open access publications
_ Establishing a research data management system that is compatible across all disciplines
_ Creating a central research information system
_ Fostering science-based engagement with digitalisation and the resulting social transformation processes

Transfer

Digitalisation also plays an important role in transferring scientific knowledge. The strategic goals of scientific transfer include shaping innovations regarding digitalisation, encouraging dialogue between science and society via digital formats in the spirit of citizen science, and promoting non-university career paths related to digitalisation as well. Transfer projects as well as central funding, consulting and interactive services offered by the Presidential Department for Research and Transfer are used, among other things, to promote knowledge- and technology-based spin-offs in the area of digitalisation. The Department further seeks to enrich the regional culture of innovation through specific services, to open up new target groups for scientific and science-related formats, and to systematically prepare young scientists for non-university career paths as part of their qualification.

Strategic measures:

_ Expanding a start-up region in the Northwest with a thematic focus on digitalisation, among other things
_ Expanding regional innovation and transfer networks for digitalisation, including digital services, in order to open up new target groups and new ways of scientific transfer
_ Establishing networks for predictable non-university career paths in the broad field of digital skills and professions

Administration

In administration, both structural and needs-specific individual measures are to be designed in line with strategic objectives. In addition, barriers are to be removed, and the implementation of digitalisation measures is to be critically reflected upon on a regular basis, taking note of changing work requirements. To this end, a central project and portfolio management system is to be introduced. Its aims include establishing overarching standards for quality assurance and improvement, interlinking project and process management more closely, and, based on a set of criteria, prioritising projects planned in the fields of digitalisation, internationalisation, sustainability and service-oriented administration. When assessing projects in the digitalisation category, special consideration is to be given to the objectives and guidelines of the digitalisation strategy. Overall, numerous measures and projects are planned to improve service quality and simplify administrative tasks. Many of these will have an impact on research and scientific transfer as well as studying and teaching.

Strategic measures:

_ Establishing a central project and portfolio management

Prioritised measures:

_ Expanding the use of the CampusCard to include employees and guests
_ Introducing a digital application and professorial appointment portal
_ Advancing paperless exam administration