

Digitalisation Plan for Stockholm University 2024–2026

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The digital work and study environment is highly important to everyone at Stockholm University regardless of whether work or teaching takes place on campus or online. The work of digitalisation must be based on an analysis of educational, research and administrative needs and the opportunities that digitalisation offers for creating added value and enhancing quality.

The *Digitalisation Plan for Stockholm University 2024–2026* should be viewed as a basis on which the University can prioritise measures during the period based on balancing identified needs with available resources.

Introduction

Digitalisation is a broad term to describe a range of different things. It is basically a matter of utilising the possibilities of digital technology to develop, enhance and/or streamline processes or entire operations; the digital transformation means that we can do things differently or do completely new things. It is also important to create good conditions for meeting new challenges such as artificial intelligence (AI). Digitalisation must therefore be viewed as a progressive process of continuous improvement.

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The *Digitalisation Plan for Stockholm University 2024–2026* is not an exhaustive document covering all of the university's development needs; it should rather be viewed as a basis on which the university can prioritise measures during the period based on balancing identified needs with available resources. The plan does not propose any specific measures but it does set out a number of subgoals on the basis of which the organisation can decide which measures need to be taken.

Stockholm University shall maintain a good balance of central and local responsibility for the IT environment. The term *central responsibility* refers to the responsibility of the university administration's offices for university-wide tools and systems. The term *local responsibility* refers to the responsibility of departments and offices for the tools and systems in their own organisations. In order to ensure efficiency, security and adequate skills provision, university-wide products, systems and infrastructure are generally managed and organised centrally; at the same time, it must be possible to provide local solutions to local needs.

To a large extent, the central IT organisation at Stockholm University is managed through portfolio management, meaning that ultimately the needs of the core operations determine the priorities for IT investments. The purpose of portfolio management is to decide which IT environments the university should have and develop, so that the IT products that are available and the projects that are started create the right benefits for the organisation and contribute to realising operational goals.

That said, not all central IT operations are currently covered by portfolio management, nor does the university have a joint model for developing and managing local IT operations. So, there is no overarching description of the university's IT organisation, making it difficult to run an efficient digitalisation programme. This creates difficulties when it comes to governance and funding, skills provision and, last but by no means least, effectively managing IT security and information security. It is therefore vital that digitalisation is conducted with this in mind.

Stockholm University currently uses over 200 separate IT systems. In many areas, digitalisation is at an acceptable or good level. However, it is clear that individual components and tools are lagging behind. Prioritising development work so that necessary but underperforming elements are dealt with first is vital.

Digitalisation is also an ongoing process that may give rise to new needs and new priorities. AI is one example of a field that is undergoing rapid development.

Prioritised areas and subgoals for the period 2024–2026

Most of the subgoals set out in the digitalisation plan primarily relate to specific areas of operations, such as education, research or the IT organisation and are therefore organised under these headings. However, the first heading below contains subgoals that can be said to relate to all of these areas and as such are overarching subgoals for the entire university.

1. Improve the conditions for digitalisation at the university

Increasing the rate of digitalisation involves new systems and tools as well as new or altered working methods. One prerequisite if increased digitalisation is to have the desired effect is that staff have adequate digital competence and an understanding of what the changes are intended to achieve.

Subgoal:

- **The digital competence of the university's teachers and other staff must be high.**
All staff at the university need basic competence in and shall be offered the preconditions for using digital technology in a secure, efficient and responsible manner. Knowledge about the available IT tools and for what and how it should be used, as well as an understanding of the possibilities of digital tools, should be considered a baseline and natural part of the duties of all employees, so that they can contribute to the continued development of their organisation. A baseline level also includes adequate knowledge of information security in relation to the individual's role. In order to maintain a good baseline level, it is vital that the introduction of new systems is always accompanied by relevant training. A large proportion of staff also need to be able to use digital tools to help create new content and to realise their ideas.
- **The university has communication and other systems in place to promote and simplify internal and external collaboration.**
The university's staff collaborate a great deal both internally and externally on research and education, as well as administratively. It is important that we have digital resources and systems that both allow and facilitate such collaborations, so that e.g. internal and external parties can easily work in joint documents.
- **The university uses digitalisation to streamline and simplify administrative operational support.**
As well as making it easier to use individual systems, digitalised working methods can also improve the integration of systems or automate processes. The available digital systems must have both a recipient and user perspective. The benefits of digital tools must be clear and comprehensible even to those who rarely use them and the overall efficiency of the entire university must be considered. Where necessary, tools and systems shall be supplemented with user instructions and/or access to personal support.

2. Education – The university has a functioning, fit-for-purpose digital environment for teaching and learning whether on campus or online

Students entering the university generally have experience of digital learning environments from their earlier studies and expect to find a functioning learning environment when they arrive here. The university should have this prior experience in mind when developing its own digital teaching and learning environment. Pedagogical and other quality-related considerations should however weigh heaviest when making choices about digitalisation.

Subgoal:

- **The entire university has access to a basic range of digital tools for education.**

A basic range of digital services must be offered centrally to meet departments' standard needs for teaching and examination. The necessary tools for conducting teaching activities to a high standard must be included in this basic range. Other services that are in high demand and create value over and above basic teaching needs should also be included in the basic range of digital services, where this is economically and otherwise feasible. It should also be possible to finance additional pedagogical tools that are not in the basic range from fee revenues.

- **The entire university shall have access to legally certain, fit-for-purpose digital examinations online and on campus.**

Digital examination is a natural part of modern university education. Using digital examinations must however be a conscious choice and the organisation of and venue for examinations shall be designed based on that choice. The university strives to facilitate access to digital examinations that meet needs. However, a university-wide system for remote monitoring of digital take-home examinations is not considered part of this.

- **Improve the conditions for using multiple digital tools for teaching and learning.**

If individual study environments see a need for specific digital pedagogical tools, it should be possible to procure and make them available at departmental level. This is vital to the pedagogical development of the university. Procuring or developing such systems should be done in collaboration with IT Services and when appropriate after consulting the Centre for the Advancement of University Teaching (CeUL) in order to gain an overview of the university's IT resources and to facilitate possible efficiencies. When local digital solutions are used, information security and IT security must also be ensured locally, if necessary in collaboration with IT Services.

- **AVIT equipment in lecture halls meets the needs of teachers and students.**

Audio-visual IT (AVIT) equipment in the university's lecture halls shall maintain a basic level of functionality from both a teaching and learning perspective. Support must be available. As far as possible, basic equipment for recording and/or streaming should be installed in all lecture halls. In addition, more advanced digital equipment should be available on each campus area to facilitate full hybrid teaching for more equitable participation.

- **As far as possible, students should encounter a uniform and interconnected digital environment.**

The university's students encounter many different pedagogical and administrative systems in their day-to-day studies for purposes such as course registration, course information, teaching, examination and course evaluations. To make life easier for students and to make communication as effective as possible, these various tools should be compatible and the digital environment should be as user-friendly as possible while retaining functionality.

3. Research – The university has a digital environment that supports its research needs

The university has a digital research environment that supports and promotes good preconditions for the university's researchers to conduct their work to the highest possible standards and with the greatest possible impact in the open-science system that is gradually developed. Researchers must be digitally competent and have the ability to select and benefit from appropriate digital tools throughout the entire research process.

Subgoal:

- **The university supports open science in a way that meets internal and external requirements and offers secure storage for research data in a manner that also enables accessibility.**

The university has a responsibility to provide infrastructure that supports and facilitates the correct processing, storage, availability and archiving of research results and research data. This includes ensuring that research results and research data are processed, published, archived and sorted out based on the FAIR Guiding Principles for scientific data management and stewardship (Findability, Accessibility, Interoperability, and Reuse), and that information security is adequate throughout the research process (see also the university's Open Science Policy). The university shall therefore offer and develop a university-wide infrastructure of services and support that meets the basic needs of researchers throughout the research process.

- **Improve the conditions for using local solutions to meet different research needs in collaboration with and, where necessary, with the support of the central university administration.**

The university has various research environments with different needs; it therefore may be necessary to develop local digital environments and IT infrastructure to meet these needs. The conditions for creating local solutions with central support must be improved.

4. IT management and organisation – The university has a user-friendly, efficient and secure IT environment

Stockholm University strives for a good balance of national (e.g. through SUNET), university-wide and local digital systems. The university is also keen to underline the value of increased cooperation with other higher education institutions. University-wide systems are necessary to provide services that are in broad demand at the university in order to fulfil statutory requirements in an efficient manner. It must also be possible to take initiatives to develop and use separate IT systems locally, to facilitate the development of research and stimulate pedagogical innovation.

In order to ensure efficiency, security and adequate skills provision, university-wide products, systems and infrastructure are generally managed and organised centrally; at the same time, it must be possible to provide local solutions to local needs. All such administrative IT environments must have staff with the necessary competence to take full responsibility for their systems.

Subgoal:

- **There must be clarity concerning responsibility, skills needs, support and resource allocation for both university-wide and local IT systems.**

Stockholm University shall have overall governance that clarifies which forms of digitalisation may be conducted centrally and locally respectively.

Procuring or developing local systems for research or education should be done in collaboration with IT Services in order to gain an overview of the university's IT resources and to facilitate possible efficiency improvements. Governance, lifecycle management and skills provision must be ensured for both university-wide and local systems.

The development and use of local IT systems for administrative purposes should be avoided to the greatest possible extent. Decisions regarding deviations from this principle should be reached in consultation with IT Services.

- **Strengthen IT security and information security within the organisation to meet external and internal requirements and needs.**

The management and organisation of IT is inextricably linked to information security and IT security. Basic elements of information security, such as data classification and risk analysis, are key aspects to consider when managing and organising IT operations. Functioning overall management of IT is in itself a prerequisite for strengthening information security and cybersecurity.

When local IT systems are used for research and education purposes, information security and IT security must also be ensured locally, in collaboration with IT Services.

- **IT Services shall develop systems and services based on good ongoing communication with those affected locally at departmental level.**

Within the scope of portfolio management, adequate methods must be available to apprehend the needs and wishes of the organisation, with good feedback concerning opportunities, information security, legal requirements, costs, etc. This demands good communication and active cooperation with heads of department/equivalent, teachers/researchers and data and system managers at departments.