

Latvian recommendations POWERHEAD¹

I Digital skills, competencies and curriculum design

A Digital skills, literacy and the skill to learn

Identify which basic digital skills are required for all students and which are specific skills relevant to the field of study. These tasks shall be addressed at both levels, the national and institutional, in close cooperation with relevant stakeholders.

1 Acquisition of basic digital and social skills

Basic digital skills are required for absolutely everyone today; therefore, a common framework or similar approach may be set at the national level. It is necessary to establish a certification system for such skills. The Digital Competence Framework (*DigCompEdu*² 2.0 and 2.2) can be used as a base or a set of skills developed in other projects or their framework³.

Ranking digital skills by level of education would allow students to have a more similar level of skills when starting their studies. At each higher education institution, it is necessary to make sure that all students have acquired basic digital skills in their previous stage of education. If such skills are not acquired, then two solutions are offered:

- applying the DigiEdu2.0 and/or 2.2. model for digital competencies, to include the development of these skills in the introductory part of the studies or to create a separate introductory course;
- based on the aforementioned approach, to prepare the acquisition of these skills through self-study in the form of a module, including an extensive self-assessment test at the end of the course;
- self-assessment tests can also be used to determine the level of skills at the beginning of studies.

Digital skills shall go hand in hand with the development of social skills.

Offer students who have previously acquired their education the opportunity to acquire a wide range of transversal digital skills at the beginning of the study period, combined with the acquisition of other transversal skills.

These skills may also include **sustainability and entrepreneurship competencies**⁴; green innovation skills and digital environments provide an excellent way to learn such skills.

One of the solutions for teachers is to combine different study tasks and group assignments.

It is also important to learn in the form of various tasks: how to work with information sources on the internet; the ability to critically evaluate digital content online; to become responsible content creators and be aware of the effects and impact on your community and the world as a whole; how to create an effective and well-thought-out presentation.

¹ This document presents the main recommendations that were drawn by the Latvian party based on the „Common Needs Analyses” of the project Powerhead in five major themes of the project: (1) Students; (2) Study Courses & Curriculum Design; (3) Vision, Policy, and QA; (4) Funding and Infrastructure; (5) Other themes. The information was received in an Online questionnaire for academic staff and in interviews with policymakers and a higher education leader.

² https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework_en
<https://www.schooleducationgateway.eu/en/pub/resources/publications/digcomp-22.htm>

³ DCDM – Digital competence development methodology, v.1 4 November 2018
www.dcds-project.eu

<https://all-digital.org/wp-content/uploads/2019/01/D6-DCD-Methodology-v1.pdf>

⁴ https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework_en

2 Acquisition of self-regulated learning skills

The students need to master the skill to learn, especially in the first study year, because not everyone has had the chance to do it before their studies. It is also necessary to provide continuous feedback to the student and communicate with the educator.

In higher education, and especially when studying in the digital environment, **self-regulated learning**⁵ for autonomous learning at various levels is very important. For students, such skills require development through encouragement and support from educators and the higher education institution. Self-regulated learning is often confused with independent study work, but they are not synonymous. Sometimes, educators have no clear understanding of how to effectively develop it pedagogically.

How can one promote the development of self-regulated learning skills?

Training or introduction to the learning process is required to introduce students to the study process; the educator needs to divide the study process so that one part is mastered together with the educator, and the other part is mastered by the students themselves; regular monitoring is needed to ensure that students are able to pursue such self-regulated learning.

It is necessary to create specific tasks in the training of these skills based on time limitations and work planning, as well as the regular submission of parts of the work. Involvement of students in solution-orientated projects that use a variety of tools, programming basics, digital product development, prototyping, etc.

Train skills to quickly generate ideas with the available resources, leaving space for mistakes to be made. The student should be allowed to make mistakes; it is an essential part of the learning process.

At the national level, promote the closer co-operation of higher education institutions with secondary schools and gymnasiums, especially motivating students to learn STEM subjects.

B Specific courses and curriculum design

Determining which basic digital skills are needed for all students and which are specific skills relevant to the field of study. Higher education institutions are invited to introduce the measurement of these skills by study level and determine their progress during studies.

1 Acquisition of STEM courses

Acquisition of STEM courses is essential for all students, where digital skills should be mastered at a higher level. Digital competencies relevant to the study field can be integrated into different study courses in all study programmes, and an approach to digital skills that the acquisition of transversal skills can be applied to.

The acquisition of digital skills and competencies shall increase during studies, which can be measured. In Latvia, a methodology for the assessment of students' competencies has been developed⁶, incl. digital transversal competencies.

⁵ Zimmerman & Schunk, 2011.

⁶ Assessment of competences of students in higher education and dynamics of their development during the study period http://petijumi.mk.gov.lv/sites/default/files/file/Kompeten%C4%8Du%20nov%C4%93rt%C4%93%C5%A1anas%20instrumenta%20rokasgr%C4%84mata_PIELIKUMS2_0.pdf

Acquisition of digital skills for all students should include the acquisition of **at least one programming language** as a basic course of study in which they will work, regardless of the field of study. A more general approach would be different tasks or courses across curricula, **promoting the computational thinking of students regardless of the field of study**.

It would be up to the higher education institutions to decide how to organise such an approach and/or how to transfer credit points if such a course has been acquired outside of studies.

It is important to increase the proportion of students eligible for STEM studies, esp. to reduce the high drop-out rates in these fields of study by implementing several measures at both the state and higher education institution levels:

- in-depth **acquisition of STEM subjects** at the secondary education level;
- offering **adaptive learning courses** for a variety of students, especially those who have not sufficiently mastered STEM in their previous stage of education, using globally developed STEM courses in the digital environment⁷ and analytics tools;
- using the opportunities and tools of the digital environment, higher education institutions can organise **an in-depth study of STEM subjects** for the youth (~20-40 years old) who, for various reasons, have not acquired them sufficiently in the secondary education stage and who would like to re-orientate their careers.

2 Specific study courses

At a later stage of studies, **the acquisition of certain digital tools and/or specific digital skills at a higher level in certain courses according to the field of study shall be considered**. It would be necessary to provide more specific courses, such as data management⁸, cybersecurity⁹, Digital skills for FAIR and Open Science¹⁰ etc. while being aware that this knowledge is needed in many areas of activity today.

The acquisition of such skills and competences can be achieved within the framework of competencies already developed in the world, as well as within various EU projects in certain areas. **Higher education institutions at the national level are invited to co-operate in the development or adaptation of such study courses**, while not excluding the decentralisation of the acquisition of such skills in accordance with the specifics of the study programme and/or the implementation of the programme.

Several higher education institutions, **jointly and/or in cooperation with foreign partners**, are invited to develop skills modules and/or study courses in a digital environment **that combine current and globally relevant topics** such as digital sustainability, promotion of green intelligence, active citizenship, etc.

Organise study courses in cooperation with industry professionals, which is not only important for students and educators but also for many professionals today, and that provide the acquisition of specific digital skills and competencies, **as courses for which micro-credentials are obtained**.

Open educational resources are a good opportunity to diversify the study process by combining study resources. Currently, the experience of working with open educational resources differs for both teachers and students.

Higher education institutions are invited to develop guidelines on how to effectively apply open educational resources in the study process.

⁷ For example: <https://pll.harvard.edu/course/cs50-introduction-computer-science?delta=0>

⁸ https://hochschulforumdigitalisierung.de/sites/default/files/dateien/HFD_AP_Nr_53_Data_Literacy_Framework.pdf
<https://www.datasciencecentral.com/data-literacy-education-framework-part-1/>

⁹ <https://www.enisa.europa.eu/topics/cybersecurity-education/european-cybersecurity-skills-framework>

¹⁰ <https://op.europa.eu/en/publication-detail/-/publication/af7f7807-6ce1-11eb-aeb5-01aa75ed71a1>

C Development of study programmes

Higher education institutions are invited to apply the technology-enhanced learning process (TEL), its principles and smart pedagogy, as well as flexible and modular curricula.

Evaluate the optimal model in each study programme, in which study courses partially or fully include TEL elements, combining and selecting appropriate learning types for the study programme or certain study courses. **Evaluate which teaching methods and study forms are most appropriate in helping to achieve the study results in a more effective way.**

Use world-proven models or already developed guidelines that would allow for the wider and methodically correct implementation of **a blended type of study model**, adapting it to the needs of a higher education institution, students and educators and to the specifics of the fields of study. For example, the **European Maturity Model for Blended Education**, Implementation Guidelines, 2021¹¹ could be explored.

Taking the development trends of the study field and current issues in the relevant industry into account, to create a study course/module content **for the acquisition of certain competencies that are fully based on TEL in close cooperation with the representatives of the respective industry**, constantly updating the course content.

In Latvia, it is stipulated that the development and implementation of professional study programmes must involve the industry and/or employers. According to the study programme, specialisation takes place in the latter study years, or specific skills may be acquired in practice in the company. As some technologies are changing very rapidly, it is necessary to assess what to learn in the study process, and what to learn during the internship.

Development of joint study programmes at the national level and/or together with international partners to prepare high-level IT and ICT specialists at the master's and doctoral levels.

II Students and Educators

A Students

1 Digital inclusion

Ensuring the principle of inclusiveness in education can be a positive aspect of digitalisation and should be considered for implementation at both levels; national and institutional. Higher education institutions are invited to reconsider how they work with different groups of students.

Self-regulated asynchronous learning enables everyone to study at their own pace and time. For educators, it is the creation of study course tasks at different levels and with varying options, giving students from different groups the opportunity to achieve their study goals.

Students need an introduction regarding behaviour in the e-environment, the available technical support and their capabilities. Instructions on how to use digital tools should be as clear and simple as possible; overly long and complicated instructions discourage reading; however, guidance is essential to be able to use these tools effectively and correctly.

¹¹ <https://embed.eadtu.eu/download/2517/EMBED%20implementation%20guidelines.pdf?inline=1>

Create or review descriptions of study courses, mentioning study forms and indicating TEL or other study methods used, e.g., convenient and transparent availability of the descriptions of all study courses on the internet (such as the ECTS course catalogue).

Digital inclusion requires the use of digital tools to diversify the types and formats of teaching materials and to make them accessible and easy to use for all students, incl. students with special needs that can be a positive driver for digital innovations in education.

The inclusion of students with special needs requires specially and sometimes differently prepared study materials, which it may not be possible to provide for each higher education institution; therefore, at the national level, several or certain higher education institutions should offer study courses and/or specific study programmes (e.g., in IT).

2 Promoting active student participation in the digital environment

For higher education institutions

The combination of study forms (blended study model) is key: on-site classes and certain study courses or projects in the digital environment.

Review the traditional lecture-based learning model and combine it with methods that focus on a student-centred approach, including TEL, open educational resources, online visits, and more.

There are ample opportunities to organise discussions and independent work in groups, which can be facilitated through the digital environment. Team project platforms, as well as participation in interdisciplinary projects, hackathons, and the use of chat platforms.

Higher education institutions should not be afraid to use the elements of interactivity much more extensively so that students have something to do throughout the lesson.

Students should be allowed to address the challenges and current issues in the study process that affect them, the study process and the acquisition of education.

3 Communication in the digital environment: requires special attention

In the field of communication in the digital environment, various recommendations have been developed and literature is available that can be used as a basis for **developing these principles and guidelines in each higher education institution.**

Implementing and ensuring the principles of effective and purposeful communication in the digital environment for all involved parties is essential both at the beginning of studies and during the study process. This creates effective feedback for students, educators and administrators.

It is necessary to evaluate and look for solutions to remove barriers to communication. In the digital environment, there may be a limited perception of information that can create various risks in the absence of human contact; **diversification of communication channels is essential.** It is necessary to promote the understanding of all students about the algorithms of artificial intelligence.

4 Well-being at the institution

Well-being should be addressed at both the national and institutional level in various aspects.

Studies in the digital environment significantly change the cognitive load; therefore, we should think much more about this aspect in the organisation of the study process, as well as ensure that there is no oversaturation of digital tools in studies.

All institutions are encouraged to behave responsibly in regard to an ergonomic working environment for all participants, incl. administrative employees, as well as provide time for the implementation and acquisition of digital solutions. This is most often an additional burden to the existing, developed system of organising the study process.

5 Assessment in the digital environment

For higher education institutions

Convenient and user-friendly study process management programmes should be introduced. They will encourage user participation and provide data for further evaluation. Students' knowledge data and learning analytics are accumulated according to the profile and development of the student's individual knowledge (student's success).

At the beginning of the course, clearly define the evaluation criteria and the types of examination (on-site, online, their distribution, if applicable) and provide clear information for all students. Students may ask for technical and/or methodological support, and make sure they are well informed about such possibilities at your institution.

Combine the formal assessment of knowledge with a personalised assessment of knowledge for a student (feedback). It is important for students to receive feedback and evaluation; this can be provided on the e-platform.

The assessment of study results should be adapted to the digital environment, but the system of tests should be maintained so that the educator can make sure that the students have mastered the planned study material. A regular assessment process at certain stages of the study course allows one to remove the main meaning and “weight” in the assessment of the final exam.

Automatic assessment and the use of AI in testing should be introduced in the study process, especially if there are large groups of students. The use of AI in the examination process can successfully take place remotely, as well as significantly eliminate the risks of academic integrity.

The observance of **academic integrity** is important in the whole study process, but it is especially important in the digital environment so that students can perform the work tasks themselves.

B Support educators and promote continuous professional development

Recognise at the management and national level that significant support is needed for the training of educators, not only in terms of funding, but also by allocating time to master it and to prepare study materials/courses/programmes in the digital environment.

The training and preparation of educators is very important and a lack of such can be a barrier to students' access to quality education in the digital environment. It is necessary to introduce the sharing best practices, conducting research and mutual learning between educators at the national and institutional levels.

Initially, targeted training in the use of certain tools may be provided; descriptions on the possibilities of various tools, their advantages and use may be prepared. Regular 1-2 h courses take place for educators on one specific issue. Advice on the use of digital tools facilitates the work of educators.

Consider extending the role of support teams for educators that would provide permanent technical support in the preparation of study materials and assistance in the use of teaching materials and digital technologies.

1 Develop a targeted, planned system for the continuous professional training of educators:

- determining and developing the digital competence framework (e.g., based on DigCompEdu) for educators¹²;
- acquisition of basic competencies and specialised courses, esp. in STEM areas¹³;
- reviewing the professional development programmes of current educators based on needs analyses at the institutional level;
- establishing training and support centres in higher education institutions, where educators would be trained, for the methodically correct preparation of teaching materials.

2 Share mutual learning between educators, awarding and use the best practices:

- hosting regular webinar series and seminars (widely available in the digital environment);
- **awarding the best innovative practices for teaching within the institution;**
- use of adapted study courses/approaches developed in world universities in various collaboration formats

The example of Latvia's cooperation with the University of Buffalo (USA) confirms that the training of educators can be organised as an outsourced service and in an environment where the educators themselves are students and acquire digital skills and methodologies for studies in an environment where they have already been tested in practice.

III Vision, policy and quality assurance

A Vision and policy

1 Strategy – policy¹⁴ and institutional level

Define the goals of the digitalisation process in higher education at the state and institutional levels. A strategic vision at the policy level to digitalisation and its aspects, desired achievements, and what issues or challenges have to be addressed.

Each higher education institution should be able to respond to the goals of digitalisation at a strategic level for the further development of the higher education institution, taking into account the digitalisation trends in education in the world, and developing an institutional digitalisation strategy based on the institution's strategic specialisation.

Development of digitalisation indicators should be widely discussed at national and institutional levels, and monitoring of digitalisation indicators would help to reach the set goals of the digitalisation strategy.

¹² Digital Competence Framework for Educators (DigCompEdu)
https://joint-research-centre.ec.europa.eu/digcompedu_en

¹³ "The educators shall primarily acquire and learn computer subjects themselves," - opinion from the educators' questionnaire in the preparation of these recommendations.

¹⁴ Align this vision and policy with EU policies such as the Digital Education Action Plan 2021-2027, the European Education Area framework and the 2030 Digital Compass.

Consider the digital readiness of higher education institution¹⁵, perform a self-assessment of the institution, analyse the current situation and develop a plan for improvement.

Decision-making based on data and the performance assessment of institutions. Collection and analysis of qualitative data for the introduction and/or change of new policy instruments.

In accordance with the set priorities at both the national and institutional level, the development of appropriate motivation and funding tools should be encouraged to promote a change in the paradigm of thinking.

2 Vision, change management, and leadership:

Recognise the importance of leadership at the institutional level in managing and implementing these processes, change management in cooperation with internal and external partners.

The leader of the higher education institution must be proactive in promoting the achievement of the set goals and in providing practical support and demonstrated understanding of various processes in the higher education institution, especially by expanding technical support and introducing support teams for educators.

Promoting the understanding of higher education institution management about TEL and digitalisation of the study process and how it can be qualitatively implemented in courses and study programmes.

Introducing the approach of digital change agents in the institution and continuous cooperation at different levels – management, educators, and **esp. students** should be included in the policy making of higher education institutions.

Developing flexible education strategies in teaching and learning, the achievement of learning outcomes and the reduction of student dropout at all levels, but especially in the areas of STEM, as priorities.

Award pioneers in digital solutions/practice at your institution with adequate attention, support and resources for the further development of digital innovations in teaching and learning and other processes supporting teaching.

What promotes the motivation of educators?

Available funds for small projects at the higher education institution that could help to resolve a specific problem in the relatively near future; or the opportunity to introduce new tools (ML, data analysis) for specific purposes, or that provide opportunities for analysis, ensure speed in processes and allow one to achieve better learning outcomes.

3 Internationalisation and digitalisation

In cooperation with current international partners, discuss and develop some study courses in the digital environment within the framework of the Erasmus+ programme, offering virtual or blended mobility, and later expanding cooperation with other foreign partners.

Review the approach to internationalisation at home, involving virtual mobility students who, for various reasons, are unable or unwilling to engage in physical mobility, thus offering an international study experience to a wider range of students.

Consider how to share broader or implement established practices within the networks of the European University alliances, which could be a strong driving force in the internationalisation of higher education institutions outside alliances as well.

¹⁵ The adopted SELFIE tool and the EMBED project may be used.

More educators and students need to be involved in these processes, as it is necessary to gain experience in this type of cooperation; funding is also needed for the implementation of various projects in the digital environment with foreign partners.

B Quality assurance: in development

Ensuring the quality of study processes in the digital environment: raising awareness among all parties.

First of all, it is important to ensure high-quality and modern study content, the digital environment as a provision of technology, and the use of certain methods in the overall study process.

Review quality assurance and requirements for study programmes that are fully implemented online for obtaining a full degree or include a separate part of studies in a digital environment.

As various hybrid and digital studies will continue to develop, the quality and their provision should be systematically addressed in the future, taking into account both the development of study programmes for such a format and the validity of the chosen technologies, their availability, the provision of appropriate methodologies and internal quality of study processes.

Digital solutions in teaching and learning should be a significant part of the institutional assessment process.

It is important for each higher education institution to have a developed and functional internal quality system that is able to respond to various changes and possibly provide support inside the institution.

IV Funding and infrastructure

At the national level, digitalisation requires specifically allocated funding and investments to achieve the goals of the strategy and address the identified challenges.

Digitalisation is a means to an end and not an end in itself.

It is essential that through public investments, **cooperation culture** between universities in the use of common resources and platforms is promoted with higher added value, thus the cooperation aspect and resource sharing may be included as one of the conditions in funding programmes at the national level.

1 Focused and sufficient investment:

- Selection/development of a funding model for studies that promotes the creation of new, modern study content, its connection with efficiency and achievable goals;
- Funding for the acquisition of certain study courses (for students, educators), in which various digital skills are acquired, and the joint development of such courses for several institutions;
- Programme(s) at a national level that enables the efficient and modern provision of the training course(s) for educators, while enhancing their motivation to implement TEL and work in a digital environment;
- Plan funding and resources for the provision of technical and support staff and resources for the well-being of academic staff as an important factor in the work environment.

In order to be able to successfully implement the digitalisation of the study process and the connection of their goals, an appropriate offer of technologies and technical support is needed for both students and educators, incl. effectively ensuring administrative processes.

2 Infrastructure

2.1 Establishment of a common service centre and cooperation platform¹⁶:

Apply an approach using resources efficiently (resource sharing) and common management as part of the e-Infrastructure strategy.

A change of mind-set in the sharing of digital resources between institutions is important; at the policy level, resource sharing needs to be promoted as a productive solution to the digitalisation of higher education.

In Latvia, such a centre is under development, focusing on several tasks (1) sharing IT infrastructure and providing centralised common IT services; (2) implementation and management of shared data repositories; (3) implementation of international educational and scientific services; (4) attracting funds from national and international programmes; (5) centralised procurement of software tools and licence management for members; (6) providing consultations and technical support etc. Legal form: unite public higher education institutions in a non-profit organisation with defined state tasks.

It is important that the common service centre develops, maintains and provides the same level of quality of service throughout the system¹⁷.

If it is not possible to meet the specific needs of higher education institutions, it is necessary to consider in which cases a compromise should be found for a common solution, and in which cases technical solutions shall be found at a decentralised level.

Issues regarding the capacity of the system for data storage and other technical parameters need to be addressed.

Security of authorisation for relative ease, so that integrated passwords can be used.

Establishment of a service that ensures the incorporation of FAIR principles into design and delivery processes.

User training in specific areas, such as data management, which can be organised through a common service centre for all institutions, is also important.

In research, educators need to have access to a wide range of tools (e.g., software) and training in their use, and the availability of research data.

2.2 Administrative processes and systems at higher education institutions:

All administrative and study support processes should be maximally digitalised, (e.g., integration of Moodle into study process management systems), synchronising data between different information systems and introducing powerful, regular and fair analytics.

The introduction of various digital tools can significantly reduce the educator's involvement in the provision of technical functions and the workload in administrative work, enabling educators to take care of the intellectual side in the study process and a more individualised approach to each student.

It is necessary to create a unified system for the whole university in the digital environment, where certain samples, templates, etc. are available so that the educator can easily prepare digital materials based on them.

Systematically create e-course description databases at the higher education institution level, which are constantly updated.

At the national level in close cooperation with higher education institutions and other stakeholders:

- continue to implement the e-student register by developing the e-system;

¹⁶ The following centres already operate in several countries: In the Nordic countries, the Netherlands, etc.

¹⁷ Discussions are ongoing as to which services to choose and which to include at the national level.

- introduce the transparency of diploma e-registers;
- improve the student application platform, incl. foreign students;
- work on systematic graduate data analysis.

V Other themes

1 Involvement of industry representatives

Close cooperation with entrepreneurs and industry representatives should already be started in the programme development phase, involving more experienced industry experts who would be willing to get involved in the implementation of study programmes and various projects together with higher education institutions, as well as providing internships and guest lectures.

There should be more in-depth cooperation with entrepreneurs and industry representatives, **identifying their needs over a period of at least 3-5 years** and jointly defining the goals to be achieved; regular cooperation and feedback at various stages.

2 Role of developers of hardware/software in digitalisation

Students or educators and developers who specialise in the development of educational technologies better understand the needs of the user. They can contribute to the modernisation of the study process, based on pedagogical research and proven technologies in education.

As sufficient software and hardware are already available, the use and customisation of adaptive learning tools and technologies can be more widely deployed. Opportunities to engage language translation technologies are growing.

The availability and use of open-access tools and resources are very important for both educators and students. More information is needed on existing tools and how to use them for the preparation of study materials.

Take into account or be aware of the risks that big technology companies may cause; however, specific solutions should be beneficial. At different levels, these aspects require careful reflection.

3 Role of local governments in digitalisation

The universities generally do not emphasise such cooperation, but some higher education institutions in the regions have such experience, where together with the local governments and other stakeholders, they are involved in the development of their region.

For example, under the framework of Urban Innovative Actions (UIA), the project “Next Generation Micro Cities of Europe” was implemented together with the local governments and universities of applied sciences in Valmiera and Ventspils. The project had an educational component to improve IT, as well as ICT skills and digitalisation.

4 Creating learning communities in a digital environment

May involve not only students and educators from higher education institutions, but also representatives of industries, scientists, stakeholders and representatives of society.

Promote understanding in these communities about the sharing of different resources (materials, software, etc.) and the promotion and wider use of open educational resources in the study process and lifelong learning.

5 Privacy, data security and other regulatory/legal aspects

Promote understanding and knowledge of **data security and protection** for all involved students, educators, and administrative staff. Knowledge of data processing and use, and a better understanding of data security risks.

Normative acts in higher education:

- Development of study programmes, the inclusion of study forms in their initial development, ensuring the quality of studies and achievement of learning outcomes in accordance with the specified study format and their combination;
- There is an opinion that there should be much more flexibility in the study plan and that change in the study format is inevitable in the future¹⁸;
- Facilitate the licensing of distance learning and off-site learning, and create new solutions that can be easily used by higher education institutions.

Along with the development and availability of study courses in the digital environment, the **issue of copyright has become topical**. The free access of study courses to all that have been developed using public funding may be a solution, with users referring to the authors. In other cases, solutions would be different, with the property rights (copyright) of the course being well-protected.

It is important **to exclude the risks of academic integrity**, promote an understanding of such at the very beginning of studies, and try to manage the study process more, encouraging students' creativity.

6 Psychological acceptance of change

Recognise that digital transformation is very rapid in all sectors and areas and that higher education can be changed. The question of whether everyone is aware of the scope and challenges of digitalisation is open, so cooperation, information exchange and a common understanding of higher education and its development processes are important.

Leadership and incentives that facilitate motivation for change could be promoted at the state and institutional level.

¹⁸ Latvia has relatively strict regulations of the Cabinet of Ministers, professional standards are rather restrictive, the process of their development or changes is an administrative burden and slow.