Recommendations on digital skills development for representatives of the three creative industries – film, music and organisation of cultural events – based on research conducted in Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan in 2022-2023.

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From 2022 to 2023, national studies of digital skills were conducted in Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan within the “Strengthening Digital Literacy Skills and Competencies and Promoting Gender Equality in Cultural and Creative Sectors in Central Asia” Project of UNESCO Almaty Cluster Office, supported by the Ministry of Culture, Sports and Tourism of the Republic of Korea.

These studies shared a common goal – to determine the level of digital skills of practitioners in three creative industries (film, music, organisation of cultural events) with a focus on women, for the subsequent development of recommendations on creating educational products aimed at enhancing and strengthening digital skills in the studied creative industries in the Central Asian countries.

This synthesis paper offers brief summary of each national study, describing the identified digital skills needs and digital roles of practitioners from the three industries under study. The summarised recommendations are divided into two sections and offer both universal solutions to meet the educational needs for digital skills in all four markets, and specific country recommendations for the subsequent development of educational products.

**Brief context: the challenges of studying digital skills in three creative industries in Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan**

1. **Divergence in defining digital skills**

A key difficulty in studying and assessing digital skills in the creative industries is the significant divergence in defining digital skills in the academic, educational and corporate literature, resulting from the high rate of change in digital innovation. Some concepts view digital skills primarily as hard and technical competencies needed to perform professional activities (operating technical equipment, creating spreadsheets, touch typing, driving, etc.). Generally, hard skills can be measured and validated by some kind of qualification.

In turn, alternative approaches view digital skills as a symbiosis of technical and 21st century skills (or soft skills) relevant for competency assessment of working professionals, and related to the use of digital devices (smartphones, tablets, laptops) and ICTs.

It is important to note that all country studies were conducted using custom methodologies, so the definition of digital skills, the assessment of digital skills proficiency, and the nature of the recommendations offered by the regional female researchers differ significantly in format and content.

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5. Information and Communication Technologies.
2. Country-specific economic factors
The national reports’ findings suggest that the level of digital skills of representatives of the creative industries in Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan is very heterogeneous, which is due not only to the individual experience and qualifications of experts in the film, music and cultural events industries, but also to the economic opportunities of the market environment.

Such technical infrastructure capabilities as the economy’s level of digitalisation, Internet penetration and speed, the maturity of the digital ecosystem (online banking, payment systems, marketplaces, e-government, mobile applications in native languages covering a wide range of needs), the spread of relevant digital devices in circulation (smartphones, tablets, computers) have a direct impact on the level of digital literacy of the population as a whole. In turn, in the professional environment, the digital savvy of experts depends on access to high-speed Internet, the modernity of the digital devices in use, and the penetration of relevant digital tools into the routine of the local professional community (professional standards).

These indicators differ significantly in Central Asian countries. One of the key indicators is the Internet speed, (see Tables 1, 2), which is a fundamental condition for the spread of digital practices and skills.

Table 1. Internet speeds in four Central Asian countries according to Speedtest Global Index as of April 2023.

<table>
<thead>
<tr>
<th>Country</th>
<th>Mobile internet speed, Mbps</th>
<th>Place in the global ranking</th>
<th>Fixed-line internet speed, Mbps</th>
<th>Place in the global ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qatar*</td>
<td>190.0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore*</td>
<td></td>
<td></td>
<td>242.0</td>
<td>1</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>30.6</td>
<td>72</td>
<td>40.7</td>
<td>101</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>25.8</td>
<td>83</td>
<td>50.9</td>
<td>84</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>11.3</td>
<td>129</td>
<td>20.5</td>
<td>130</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>20.9</td>
<td>104</td>
<td>47.8</td>
<td>89</td>
</tr>
<tr>
<td>The global average country indicator</td>
<td>42.1 vs 10.3</td>
<td></td>
<td>80.1 vs 35.1</td>
<td></td>
</tr>
</tbody>
</table>

* The leading countries in terms of Internet speed given for comparison.

Table 2. Internet speeds in major cities of Central Asia according to Speedtest Global Index as of April 2023.

<table>
<thead>
<tr>
<th>City</th>
<th>Mobile internet speed, Mbps</th>
<th>Place in the global ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Rayyan, (Qatar)*</td>
<td>199.2</td>
<td>1</td>
</tr>
<tr>
<td>Almaty (Kazakhstan)</td>
<td>46.1</td>
<td>66</td>
</tr>
<tr>
<td>Samarkand (Uzbekistan)</td>
<td>30.8</td>
<td>99</td>
</tr>
<tr>
<td>Bishkek (Kyrgyzstan)</td>
<td>25.2</td>
<td>121</td>
</tr>
<tr>
<td>Astana (Kazakhstan)</td>
<td>24.5</td>
<td>124</td>
</tr>
<tr>
<td>Tashkent (Uzbekistan)</td>
<td>23.8</td>
<td>126</td>
</tr>
</tbody>
</table>
The global average urban indicator

<table>
<thead>
<tr>
<th>Dushanbe (Tajikistan)</th>
<th>13.1</th>
<th>157</th>
</tr>
</thead>
<tbody>
<tr>
<td>The global average urban indicator</td>
<td>42.0 vs 10.3</td>
<td></td>
</tr>
</tbody>
</table>

*The leading cities in terms of Internet speed given for comparison.*

3. Status of the creative industries

The lack of a fundamental legislative framework regulating the status and activities of the creative industries in Kazakhstan, Uzbekistan and Tajikistan makes it difficult to objectively assess the entire economy sector, and has a negative impact on the quality of statistical accounting and on the gap between educational system and the staffing requirements of the market.

The exception in the Central Asian region is Kyrgyzstan, which adopted the law on the Creative Industries Park and corresponding classification code for economic activities (CCEA) in 2022. In June 2023, Kazakhstan adopted the decree on approval of the CCEA list for creative industries.

The quality of statistical data in the countries of the region remains extremely low and insufficient for a comprehensive potential evaluation of the creative industries.

In Tajikistan, and partly in Uzbekistan (for the cultural events industry), there is still no division into cultural and creative industries at the official level. The state has a monopoly on the creation of cultural/creative products. In Kazakhstan and Kyrgyzstan, the creative economy is seen as a result of entrepreneurial activity and as a sector of the market economy, where state financial support is not deemed essential nor systemically important.

4. Evaluation of digital skills

In the context of the creative economy, the traditional division of occupations into creative and non-creative is no longer correct, although the curricula of creative universities continue to operate in this paradigm. The three creative industries under study – film production, music, and organisation of cultural events – employ members of many professions, including creative, administrative, technical, and related occupations. Assessing digital skills only in creative professionals is invalid for understanding true industry performance.

Creative, technical and digital skills are often inseparable in professional settings. This is especially true for creative industries with traditionally high technology penetration, which can include the film, music, and cultural events sectors under study.

Professionals in the three industries under study have difficulty identifying digital skills and assessing their own level of proficiency, which leads to a lack of an established demand for digital skills development. This can be related both to the prevalence of a narrowly technical perception of digital skills, and to the extensive use of digital technologies in personal and professional routine, which is perceived by experts as basic literacy. This statement is more characteristic of Kazakhstan and to a lesser extent of Tajikistan, which, according to the report, is characterised by less widespread digital processes.

5. Nature of education and professional development

Large-scale digitalisation has allowed to radically change the ways and speed of professional development, shifting the responsibility for training from employers to professionals themselves. For experts with no language difficulties, daily screening of professional online resources in
Russian and English allows digital skills to be mastered seamlessly and situationally, as individual requests arise in the context of current professional challenges.

Digital skills training on the market always takes place at the initiative and at professionals’ own expense when it comes to market-based conditions of operation. Continuous micro-learning takes place in practice, as well as through informal mentoring (asking colleagues and friends for help). The YouTube online platform is cited as the main source of expertise for professional development in all four countries. As noted by experts, video lessons allow improving technical skills, but do not provide a theoretical basis nor help developing soft skills.

6. Specificity of digital skills in the creative industries

The maximum concentration of creative projects and businesses in Central Asian countries falls on big cities due to their access to expertise, better technical base and solvent audience, which is in line with global trends.

It is important to note that representatives of these three sectors see themselves as part of several creative industries simultaneously, which creates certain conditions for mastering and applying digital skills in the context of their high inter-project, interdisciplinary and inter-industry mobility. The level of digital skills almost always depends on the context – the specificity of tasks, the frequency of changing professional roles, the digital culture in the team, the geographical location of the professional.

Brief conclusions of the country studies

According to national studies, the most developed creative sector of the three industries studied in the four countries is the cultural events industry (in proportion to the economic development and digitalisation of the country), the fastest growing sector is the music sector, and the sector with the most digital skills gaps is the film production sector (except in Kazakhstan).

Tajikistan

The national survey of digital skills in the three creative industries of Tajikistan presents a predominantly technical view of skills that are associated with the use of technical equipment and highly specific software (sound editing, graphic design, etc.).

Tajikistan demonstrates the lowest Internet penetration among Central Asian countries, poor technical equipment of state cultural institutions and universities, including those of creative profile, to enable students to carry out independent practical work, as well as technical unreadiness for online education.

In the creative industries studied, there is a poor command of English and Russian for professional tasks, which, in the absence of developed educational professional content in Tajik language, negatively affects the ability of independent professional development, the quality of communication with experts from other markets, promotion of projects abroad, and search for orders on Russian- and English-language platforms. The market has an acute shortage of educational literature and teaching aids in Tajik language. In many areas, the tradition of transferring practical knowledge from master to apprentice still pertains.

In recent years, interest in getting non-formal education is associated with the popularity of video blogging and digital marketing. However, refresher courses for experienced professionals are absent, while there are plenty of offers for those interested in the topics and/or beginners.
It is separately noted that there is a lack of special training/refresher courses for lawyers in the fields of copyright and intellectual property for the creative industries. Also, the royalties system in the country has not yet been established. Creators publish their films and musical content on internal video streaming platforms, on mobile and Internet portals, or through mobile applications free of charge.

Experts note that the Internet helps freelancers earn money. However, in their interviews experts often say that “We do not strive to make money on the Internet; the music is distributed in the Tajik segment of the Internet free of charge with the aim of popularising it.” Content creators actively use social media platforms, such as Facebook, Instagram, YouTube, for self-presentation.

**Film and video production**

The field of film production was named as the least developed of the three creative industries. Industry representatives have a lack of fundamental knowledge of the filmmaking process, and of theory in the field of sound and script analysis, which is further complicated by the inaccessibility of licensed software for video and sound editing because of its high cost and the language barrier among professionals.

There is a demand in the film industry to strengthen the skills of online distribution, communication with distribution companies and event agencies, audience management (demand analysis, interaction and audience engagement), and to strengthen the position of art managers and producers.

**Music industry**

Representatives of the music industry are less demanding in protecting intellectual rights at the national level. The study notes weak legal literacy and ignorance of the fundamentals of copyright among professionals – their inability to work with contracts, protocols of international venues, and their dependence on a competent intermediary.

There is a demand among musicians for thematic courses on music theory, contemporary composing, creation of soundtracks for films and video games, sound engineering, namely re-recording, sound mixing, sound editing, ADR recording of dubbing lines, foley editing, mastering.

**Cultural events industry**

Cultural events industry, the most developed of the three industries studied in Tajikistan, faces technical and financial challenges in online streaming of concerts and performances, as well as in transferring cultural events to a virtual format.

**Uzbekistan**

The national study of digital skills in the three creative industries of Uzbekistan presents a predominantly technical view of the skills that are associated with the use of technical equipment and highly specific software (colour correction, computer graphics production, editing, etc.).

According to the study, non-formal education in Uzbekistan provides the necessary range of programmes for the development of technical/hard (digital) skills of professionals in the film, music and cultural events industries. Key educational sites are concentrated mainly in Tashkent.
Mass and underground cultural projects, mainly in the fields of music and film, are widely represented in the country.

The music industry in the country is very dynamic. Performing artists and musicians actively use social media, digital outlets and international streaming platforms to promote their projects. Dubbing of foreign films and TV series into Uzbek language is also a well-developed industry; in addition, private voice acting studios are engaged in creating audiobooks, which allows diversification of income. Commercial deals with ghost producers engaged in writing and arranging music with full alienation of copyrights in favour of the artist without attribution are common in the market.

In contrast to Tajikistan, Uzbekistan has a well-developed legal expertise in dealing with intellectual property and copyrights, although awareness of how to deal with intangible assets needs to be increased among representatives of the creative industries studied.

The continuing gaps with the technical equipment of venues and universities, the lack of long-term education programmes for professional development with access to mentors, and the growing language barrier (not all professionals speak Russian and English, and university graduates have virtually no command of Russian) were noted as barriers to strengthening digital skills among professionals. The cultural events industry remains over-regulated in terms of obtaining permits and licenses to operate, which also hinders the freer development of the sector.

Film and video production
According to the national study, there is a demand in the film market to strengthen the following activities:

- production and art management of film and video projects;
- distribution of film and video projects with an emphasis on the specifics in the Central Asian region;
- special effects and visual effects techniques;
- film studies;
- film festival programming;
- digital restoration of archival media, audio and film.

There is a separate request to introduce training courses for mid-level professionals at the Uzbekfilm cinema concern and in the existing film departments at universities (assistants, second directors and second cameramen, set designers, camera mechanics, lighting technicians, property masters, costume designers, production managers, etc.).

Music industry
The main priority for experts from the music industry is to improve their skills in promoting creative projects in the digital space, copyright protection, and access to mentorship programmes. There is a need to increase awareness of global music distribution practices, licensing and royalty systems, and knowledge of global music trends in order to work in the international music market.
Cultural events industry

The most dynamic of the three creative industries under study, the cultural events sector, brings together a large number of creative, administrative, and technical professionals with a wide range of competencies, some of whom have university training in project administration, economics, and management. The projects integrate technical practices with contemporary art practices, experimental music and video production. The demand for the development of specific digital skills has not been identified.

Kyrgyzstan

The national study of digital skills in three creative industries in Kyrgyzstan was based on the International Telecommunication Union (ITU) classification of digital skills, which addresses basic, intermediate and advanced digital skills (see Table 3).

Table 3. Digital skills according to the ITU classification (2018)

<table>
<thead>
<tr>
<th>Basic skills</th>
<th>Intermediate skills</th>
<th>Advanced skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>− Using a keyboard or touchscreen to operate a</td>
<td>− Desktop publishing</td>
<td>− Artificial Intelligence (AI)</td>
</tr>
<tr>
<td>digital device</td>
<td>− Digital graphic design</td>
<td>− Big data</td>
</tr>
<tr>
<td>− Completing basic online transactions such as</td>
<td>− Digital marketing</td>
<td>− Cybersecurity</td>
</tr>
<tr>
<td>making Internet searches, sending and receiving</td>
<td>− Advanced use of the Internet, software tools, and specific applications</td>
<td>− Digital entrepreneurship</td>
</tr>
<tr>
<td>e-mails, filling out a form</td>
<td></td>
<td>− Internet of Things (IoT)</td>
</tr>
<tr>
<td>− Word processing</td>
<td></td>
<td>− Virtual Reality (VR, AR)</td>
</tr>
<tr>
<td>− Creating professional online profiles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>− Managing privacy settings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This framework examines digital skills in the form of hard (qualification) and technical skills, which are associated with the use of technical equipment and highly specific software to solve professional tasks (e.g. computer graphics production, sound control desk operation, film editing, etc.). Recommendations in the report are based on an analysis of global trends in the three creative industries under study, relate to the specifics of the staffing demand in the Kyrgyz market and the need to develop intermediate digital skills in professionals (content creation, the ability to critically evaluate technology, skills in processing large amounts of data, production, analysis, interpretation, visualisation, etc.).

Such factors as the undeveloped digital ecosystem, the low level of digital competence and low confidence of the population in the digital economy as a whole, as well as the language barrier, were noted as constraints to the development of digital skills in the country. In the creative industries, the lack of qualified personnel with developed soft skills (art managers, producers, designers, etc.) and weak intellectual property protection practices remain the key barriers.

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**Film and video production**

The general level of digital (technical) skills among technical specialists in the film industry is assessed by experts as insufficient for the production of sophisticated technological film and animation projects. Professional sound work in cinema, production of special effects and graphics are still the most in-demand and under-represented types of services.

In the film industry, the key position influencing the dynamics of change in the industry is the producer. The missing links are distributors and festival agents – according to the report, these positions are critical for the qualitative growth of the film industry. Also noted is the demand for legal services in the film production area.

**Music industry**

Experts assess the general level of digital skills among technical specialists in the music industry as insufficient. In the music industry, the main actors identified are music artists (musical performers) rather than music producers. Currently, there is a demand for arrangers and sound designers, music agents, managers (impresarios) and software developers in the production and maintenance of streaming services.

**Cultural events industry**

Experts assess the overall level of digital skills of technical specialists in the field of cultural events management as satisfactory. The main drivers of the industry are art managers (producers). There is a request to strengthen workforce capacity in the areas of digital marketing, event marketing and online sales.

**Kazakhstan**

A study of digital skills in three creative industries in Kazakhstan used the 21st century digital skills classification (Van Laar et al., 2017), which is a symbiosis of technical, hard and soft skills that accompany working with ICT. For knowledge workers, which includes representatives of the creative industries, Van Laar et al. (2017) identified twelve 21st century digital skills, only one of which is technical. The core digital skills include technical skills, information management, communication, collaboration, creativity, critical thinking, and problem solving, as well as five contextual skills: ethical awareness, cultural awareness, flexibility, self-direction, and lifelong learning (see Tables 4 and 5).

**Table 4. Defining core 21st century digital skills (Van Laar et al., 2017)**

<table>
<thead>
<tr>
<th>Technical</th>
<th>The skills to use (mobile) devices and applications to accomplish practical tasks and recognise specific online environments to navigate and maintain orientation. Key components: ICT knowledge, ICT usage, ICT navigation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information management</td>
<td>The skills to use ICT to efficiently search, select, organise information to make informed decisions about the most suitable sources of information for a given task. Key components: define, access, evaluate, manage.</td>
</tr>
<tr>
<td>Communication</td>
<td>The skills to use ICT to transmit information to others, ensuring that the meaning is expressed effectively.</td>
</tr>
</tbody>
</table>
Key components: transmitting information.

Collaboration | The skills to use ICT to develop a social network and work in a team to exchange information, negotiate agreements, and make decisions with mutual respect for each other towards achieving a common goal.  
Key components: interactive communication, participation in discussions.

Creativity | The skills to use ICT to generate new or previously unknown ideas, or treat familiar ideas in a new way and transform such ideas into a product, service or process that is recognised as novel within a particular domain.  
Key components: content creation.

Critical thinking | The skills to use ICT to make informed judgements and choices about obtained information and communication using reflective reasoning and sufficient evidence to support the claims.  
Key components: clarification, assessment, justification, linking ideas, novelty.

Problem solving | The skills to use ICT to cognitively process and understand a problem situation in combination with the active use of knowledge to find a solution to a problem.  
Key components: knowledge acquisition, knowledge application.

Table 5. Defining contextual 21st century digital skills (Van Laar et al., 2017)

<table>
<thead>
<tr>
<th>Skill</th>
<th>Description</th>
</tr>
</thead>
</table>
| Ethical awareness          | The skills to behave in a socially responsible way, demonstrating awareness and knowledge of legal and ethical aspects when using ICT.  
Key components: ICT responsible use, ICT social impact. |
| Cultural awareness         | The skills to show cultural understanding and respect other cultures when using ICT.  
Key components: cross-cultural communication. |
| Flexibility                | The skills to adapt one’s thinking, attitude or behaviour to changing ICT environments.  
Key components: adapting to frequent and uncertain situations. |
| Self-direction             | The skills to set goals for yourself and manage progression toward reaching those goals in order to assess your own progress when using ICT.  
Key components: goal setting, control, initiative, monitor progress. |
| Lifelong learning          | The skills to constantly explore new opportunities when using ICT that can be integrated into an environment to continually improve one’s capabilities.  
Key components: knowledge creation efficacy. |

Digitalisation of the economy in Kazakhstan is quite high. Due to the deep penetration of technology in the activities within the three industries, the technical competence and adaptability to digital innovation of professionals in music, film production and organisation of cultural events is rated as very high. At the same time, experts describe all the 21st century digital skills, with the exception of technical skills and lifelong learning, as underdeveloped among practitioners, and extremely weak among newcomers. There is still a significant gap between the skills of university graduates and the qualification expectations of the market.

The study was built around the subject of the digital transformation of the industries studied and the associated professional roles that have taken place over the past five years in Kazakhstan. Digital skills were divided into groups according to the product/service value chain stages common
for of the creative industries: project administration and producing, resource management (including intangible assets); creative product/service creation; marketing and promotion; product/service distribution (including on international markets).

Many digital approaches and tools are equally applicable to all stages of creative product/service production in the three industries studied, except for the content creation stage. Experts could not name certain digital skills unique to each industry. Requests for strengthening digital skills among practitioners are individual and very specific, due to the different levels of adaptability to digital change among professionals, the different individual professional experience in core and related fields, the different functions of a particular professional position, and the different digital culture adopted by the project, sector, or industry as a whole.

Project administration and producing, and resource management (including intangible assets)

Managers and producers need systematic development of digital skills that will take into account not only the technical application of digital tools, but also a deep understanding of the principles of communication, cooperation, crisis management, critical thinking, creativity, and the ability to solve non-standard problems.

The continuing high level of piracy associated with the illegal reproduction and use of musical works and the use of pirated software, indicates the legal and ethical incompetence of project managers, which must be improved.

Creating a creative product/service

According to experts, key skills, without which today it is difficult to remain competitive when creating content/product/service include communication, cultural and technical outlook, and extensive visual erudition.

As ChatGPT and other artificial intelligence (AI)-based applications become widespread, Kazakhstani practitioners need to master the skill of writing prompts or setting a clear specific task for an AI-assistant. Such skill includes a whole set of digital skills: creativity, information management, critical thinking, cultural outlook, and ethical awareness.

Media skills (working with media and social media) are needed not only for content writers/creators, but also for music artists. There is a demand to develop skills of self-presentation and reputation management in social media.

Marketing and promotion

The trend toward personalisation (or targeting) in marketing requires creative industry professionals to master new digital roles, media skills, strategic and digital marketing, and audience knowledge and interaction. Key digital skills that need to be strengthened in marketing side include expanding of analytical tools when working with data, the ability to interact with audiences, collaboration with professional marketers on the part of customers and sponsors, visual erudition in specialised marketing, and a deep understanding of digital marketing principles and the digital environment in general.
Product/service distribution (including on international markets)

Currently, there are no platforms or experts in Kazakhstan that can provide consulting and expert support for films distribution to international markets. In addition, representatives of independent film projects find it most difficult to understand the specifics of Kazakh distribution due to the lack of process transparency.

When developing and delivering video and animated content to the English-speaking audience on YouTube and other online platforms, there is a demand to develop such skills as working with social networking algorithms, market and competitor analysis, and consumer preference analysis. The international competitiveness of projects is influenced by the level of marketing, technical and digital competencies of professionals, related to information management and collaboration skills, as well as a broad outlook and creativity.
Consolidated recommendations for Central Asian countries to strengthen digital skills of professionals in the three creative industries

Studies conducted in Tajikistan, Uzbekistan, Kyrgyzstan and Kazakhstan offer different approaches to the study and mastery of digital skills. This heterogeneity is associated not only with differences in the interpretation of digital skills, but also with more fundamental differences, namely the digital ecosystem development in the country and the speed of digital transformation in the industries studied, the resource (technical) base, the development of entrepreneurial (commercial) projects in the creative industries, and the individual skill level of professionals.

For this reason, below are recommendations for the development of educational products to build digital skills of professionals from the three creative industries, both general, meeting the needs of all four markets, and targeted for each country in the region, as voiced by the researchers.

1. Recommendations for all four markets

1) *The essential role of national languages in enhancing digital skills*

In Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan there is a shortage of educational products in native languages. There is no shortage of access to educational resources, instructions and training videos for professionals in Russian and English. At the same time, the role of Russian language in the region, especially among young people, is weakening. For Uzbekistan and Tajikistan, education for professionals in Russian is not relevant. The study on Tajikistan shows a demand for creating materials in Farsi because of the more active creative integration with Iran and Afghanistan.

Therefore, it is recommended to develop online educational products and to communicate prioritising national languages. Whether distributing educational products in Russian or English (as a less preferred way), offer subtitles and/or professional dubbing in Kazakh, Kyrgyz, Tajik and Uzbek for the videos, and provide manuals and educational materials in national languages.

2) *From narrow topics to a comprehensive understanding of the digital environment*

Many experts who took part in the national studies emphasised the low value of a fragmented approach to the study of individual, rapidly changing digital tools and related skills, while professionals sorely lack a comprehensive understanding of the digital environment as a whole, as well as its prospects and potential in a single industry. In this regard, an umbrella educational product offering the study of 21st century digital skills as a system for navigating and adapting to digital transformation, or as an algorithm for developing and monetising digital projects, can have high potential for interdisciplinary training of professionals and students from several creative and related fields simultaneously.

Recommendation 1. Develop a comprehensive online course on the digital environment, digital etiquette, 21st century digital skills, and the principles of interdisciplinary interaction when implementing digital projects. Take into account current approaches to distance learning (elements of gamification, interactive learning, quizzes, etc.).

Recommendation 2. Recruit experienced local experts and educators (methodologists) to work as a team to develop an online product.

Recommendation 3. Create an online course with an umbrella curriculum for the four markets and conduct training for trainers for further local adaptation of the methodology and materials, including in national languages, in each of the Central Asia countries.
3) Digital environment requires digital professions

Despite the wide range of professional areas for the potential development of digital skills, local and international experts note the need to master additional professional (digital) roles. At the current rate of transformation, digital skills become obsolete within 1–3 years. Accordingly, new career development strategies emerge: from traditional professional development (upskilling) to mastering new professional roles (reskilling).

The position of producer (in some markets more common is the position of art manager) is perceived as systemically important for the three industries studied in Kazakhstan, Uzbekistan, Tajikistan and Kyrgyzstan (only in the film production). According to experts, it is producers who are able to bring new standards of work and initiate a large-scale transformation in the industry. The role of digital producer has been named as the most in-demand, with little formalisation in the market. This position implies media skills and a comprehensive understanding of the digital environment, modern communication channels, and data analytics. In particular, today the greatest expertise in this area in Kazakhstan lies with the producers of large TikTok houses, content makers and digital marketers, whose expertise can be used to develop an educational product.

In Kyrgyzstan, the role of music artist (musical performer) in the music industry and the role of art manager in the event industry have been named systemically important. Mastering the role of digital producer by artists and art managers is seen as an effective way to increase the commercial sustainability of individual creative initiatives and the creative ecosystem as a whole.

Recommendation 1. Design an educational course on “Digital Producer in the Creative Industries,” enhancing its content with ten out of twelve 21st century digital skills: information management, communication, collaboration, creativity, critical thinking, problem solving, ethical awareness, cultural awareness, flexibility, self-direction.

Recommendation 2. Recruit experienced local experts and educators (methodologists) to work as a team to develop an online product.

Recommendation 3. Create an online course with an umbrella curriculum for the four markets and conduct training for trainers for further local adaptation of the methodology and materials, including in national languages, in each of the Central Asia countries.

4) Gaining experience through experience as a key principle of professional development

In addition to self-education, coaching and mentorship are seen as the most effective ways to improve skills among professionals. This approach involves dealing with individual expert requests in real time, analysing examples, and seamlessly reinforcing soft skills (communication, teamwork, creativity, time management, etc.) while working on real-world tasks. With this, the majority of respondents noted that they would like to receive expert and educational support from reputable experts with deep knowledge of the local market specifics (nature and technical capabilities of projects, legislative restrictions, peculiarities of copyright, etc.).

Recommendation 1. In addition to the core online course(s), offer a mentorship programme to support professionals from the four countries by local “digital ambassadors” — experts from creative businesses and related disciplines who have successfully proven themselves in digital projects or specific professional roles (digital marketing, intangible asset management, project management, etc.).

Recommendation 2. Develop and conduct training for digital mentors from the four countries to follow up with targeted outreach to local professionals directly in their native languages.
2. Targeted recommendations for each country

Targeted recommendations for Tajikistan

According to the national study, the following positions and qualifications were noted among the topic areas for educational product development:

1) *Organisation of cultural events*: organising webcasts, digital marketing, including market research on creative products and services, study of demand and interaction with different audiences, promotion strategies for creative products and services;

2) *Film production*: digital marketing, including market research on creative products and services, study of demand and interaction with different audiences, attracting viewers, promotion strategies for film and video content, fundamentals of copyright, study of global industry standards of online distribution (access to VOD and OTT platforms);

3) *Music*: fundamentals of copyright;

4) *All the three industries*: work with online media and social networks, interaction with bloggers and influencers (influencer marketing), organisation of networking platforms to exchange experiences.

The study notes the need to strengthen the following professional positions:

1) film and music producers;
2) art managers (fundraising, product promotion, sales);
3) film distributors;
4) lawyers specialising in intellectual property and copyright;
5) consultants in distribution and art management.

When developing educational products, it is recommended to focus on professional development programmes for experienced rather than novice professionals. It is important to take into account that the organisation of technical workshops requires participants to have access to a professional studio and equipment – not all experts have their own technical means or the financial resources to rent those.

Targeted recommendations for Uzbekistan

In developing educational products for film industry professionals in Uzbekistan, it is recommended that educational initiatives address the following areas:

- range of topical competencies in film production;
- organisational, planning and management skills for film production and online distribution;
- copyright awareness and literacy for audio-visual content creators;
- sound design and location sound recording competencies;
- skills to monetise creative products/services as part of creative entrepreneurship;
- the skill of self-presentation in the digital space of both the creators themselves and their creative products (not limited to social media);
strengthening the skill of collaboration between artist and director through the analysis of practical cases in the field of scenography and dramaturgy.

Priority areas named for (hard) skills development for music industry professionals are:

- mixing and mastering audio recordings;
- marketing: principles of working with the audience, email marketing, artist promotion in the digital space;
- fundamentals of international copyright for artists;
- composition, and psychology of music and sound;
- music theory for producers without music education.

Targeted recommendations for Kyrgyzstan

According to expert surveys, the top six areas for developing digital skills in the three creative industries included (in order of priority):

1) technical skills for creating digital content (graphics, animation, digital art, video and audio production);
2) advanced digital skills for working with artificial intelligence, VR and AR technologies; blockchain, programming, cybersecurity, data protection and copyright content protection;
3) digital marketing and social media communication skills;
4) digital entrepreneurship (entrepreneurship in a digital environment);
5) information retrieval and data management (analytics, data processing);
6) lifelong learning skills.

In developing educational products, it is recommended to:

- combine digital competencies with the development of creative skills, conceptual and creative thinking, and aesthetic taste, and the broadening of the general outlook in arts;
- introduce curricula to deepen understanding of key digital concepts and transformations in both the creative industries and the arts;
- enhance the qualifications of art curators and managers to work in the digital environment (knowledge of digital trends, practices, strategies);
- develop project management skills in the digital environment.

Initiatives to create centres of excellence and support applied research programmes in the three creative industries also look promising.

Targeted recommendations for Kazakhstan

Since lifelong self-education is the norm among practitioners, none of the respondents in Kazakhstan spoke in favour of specialised training to develop individual digital, hard and technical
skills because of the rapid change of tasks and approaches, the emergence of new roles, and the rapid evolution of digital tools.

Recommendation 1. Abandon the production of narrowly focused courses, duplicating available educational and thematic materials in Russian and English.

Recommendation 2. Develop a curriculum for the most in-demand position of a digital producer on the market and a comprehensive course on the specifics of implementing creative projects in a rapidly changing digital environment.

The experts noted, not without a hint, the following topics as individual areas of potential interest for the development of digital (hard) skills:

- media skills: working with social media, mass media, PR; self-presentation and self-reputation management in a digital environment;
- principles of working with sponsors, fundraising, collecting donations;
- financial flow management: online sales, online cash registers, financial analytics (poor financial literacy remains one of the most problematic areas in the creative industries, regardless of the level of digital literacy);
- managing relationships with different consumer groups: search customisation, digital marketing, data analytics, social media, targeted advertising;
- project management: using online tools for collaboration and monitoring its effectiveness; training in strategic planning, resource management, project and team management, time management, and collaboration;
- Intellectual property and copyright in the digital environment.

Potential partners for educational products development

Potential partners of UNESCO for the development of educational products aimed at strengthening digital skills among professionals of the three creative industries in the Central Asian countries can include existing professional and educational platforms in each of the four countries of the region.

Tajikistan: companies with experience in organising music contests, events and trainings for participants (music), ‘Bactria’ cultural centre (music, film), ‘Didor’ public organisation (film), Academy of Influencers from the Central Asian Networking Community and the annual GoViral festival.

Uzbekistan: Tashkent branch of the Russian State University of Cinematography (VGIK), ‘Uzbekfilm’ cinema concern, ‘Focus’ film school (film); for the music and cultural events industries – see list of partners in the National Report on Digital Skills.

Kyrgyzstan: data was not collected.

Kazakhstan: existing professional associations (event associations), business hubs (‘Impact Hub’, ‘MOST’, ‘House 36’), private foundations (Batyrkhan Shukenov Foundation) in Almaty and Astana, interacting with expert educators, expert mentors, and successfully implementing their own professional development programmes in their industries in the format of tailor-made courses, summer schools, residencies, bootcamps and seminars. Professionals who have taken part in expert interviews and run their own sites/platforms are also open to collaboration.
**Recommendation:** Conduct a mapping of potential partners among existing professional and educational resources/platforms working in the three creative industries and in related areas to select experts and online venues with a working digital infrastructure for joint implementation of educational initiatives to strengthen digital skills.
List of national studies of digital skills conducted in Central Asian countries at the request of UNESCO Almaty Cluster Office

Arabova S. (2022). National study of the level of development of digital skills in music, film and organization of cultural events in the Republic of Tajikistan. UNESCO.

Arabova S. (2023). National study of the level of development of digital skills in music, film and organization of cultural events in the Republic of Uzbekistan. UNESCO.
