THE ROLE OF DIGITAL TRANSFORMATION IN CREATIVE INDUSTRIES COMPANIES IN REGIONS

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Abstract. Since the term digital transformation appeared in the literature in the 1990s, it has been widely used in a variety of fields and contexts. At the moment, both in the scientific literature and practical application, digital transformation is understood not only as the use of digital technologies, but also as a change in the understanding of the role of technology in the development of processes, forms and approaches at the level of both: an individual and society. Digital transformation is also an integral part of policy planning documents, which is vividly confirmed by the Digital Transformation Guidelines for 2021-2027 of Latvia. The vision defined in the document emphasizes the importance of technology for the development of society and the competitiveness of the business and for the development of creativity. It describes the relatively low level of digital transformation in small and medium-sized enterprises in Latvia, which is very typical as well for creative industries. Digital transformation of the creative industries has been little studied so far.

The aim of the article is to assess the importance of digital transformation in regional creative industries. To achieve this goal, the literature and documents on the digital transformation were analysed, especially about the creative industries. To assess the potential of digital transformation in creative industries, interviews with experts on digital transformation, creative industries and regional development were carried out.

The study showed that the importance and application of digital transformation in the creative industries have grown in recent years, partly due to the situation of the Covid-19. On the other hand, its role in the performance of companies is still relatively small and underestimated.

Keywords: creative industries, digital transformation, entrepreneurship in the creative industries, regional development.

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Introduction

The concept of the 'digital transformation' has evolved gradually since the 1990s. Initially, the term "digitization" was used to refer to the process of converting information from analogue to digital. However, the concept of "digital transformation" goes beyond the digitization of existing processes. Digital transformation means "the use of digital technologies (social media, mobile, analytics or embedded devices) to enable major business improvements (such as enchasing customer experience, streaming operations or creating new business models)" (Fitzgerald et al., 2014). Different definitions of this concept emphasize the need to invest in the development of digital technologies (Morakanyane, et al., 2017; Altimeter, 2021) and to review the business model (Perkin, Abraham, 2017; Wade, 2015). Microsoft sees the digital transformation as "the opportunity for businesses to think and operate like digital companies in the way they engage their customers, empower their employees, optimize their operations and transform their products" (Arkan, 2015).

The digital transformation of companies consists of several elements. For example, the "digital piano" model looks at the following elements: business model, structure, people, processes, IT capabilities, supply and engagement model (Wade, 2015). McKinsey & Company uses the following elements of a successful digital transformation: digital strategy and targets, organizational structure, test-and-learn approach, talent and capabilities, ecosystem leverage, culture change (Burkacky, et al., 2018). Both the definitions of "digital transformation" and its conceptual models show that digital transformation is not just the use of digital technologies, but a transformation of the business model and organizational culture.

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The digital transformation also plays a key role in national development and policy planning. It has been identified as one of the cornerstones of the European Union's development, not only at the level of companies but also of society as a whole. In Latvia, the importance of digitalisation is emphasized in the Latvian Sustainable Development Strategy for 2030, and in the Latvian National Development Plan for 2021-2027, it is stated that "the digital transformation is the key to productivity, economic growth, the well-being of the individual and society". The main directions and results of digital transformation in Latvia are defined in the "Guidelines for Digital Transformation 2021-2027". The section of this document "Assessment of the Current Situation" clearly states that "Latvian companies are not fully using their digitalisation potential, which is confirmed by the lagging behind the EU average; and no significant progress has been made in the integration of digital technologies in the business". According to the Digital Economy and Society Index (DESI) published by the European Commission, Latvia's assessment for 2021 is slightly below the European Union average, and the lowest level is in the digital transformation of companies.

The importance of the digital transformation of companies has been highlighted in the situation of the Covid-19 pandemic. In a matter of days and weeks, companies were forced to digitally transform their operations with solutions for remote work, e-commerce, digital marketing etc. Culture and the creative industries were among those sectors where activities were severely limited and opportunities for digital transformation had to be sought (Khlystova, et al., 2022; Pilege, et al., 2020; Massi, et al., 2020). Newest research on digital transformation in the creative industries has shown that the boundaries of the creative industries are blurring under the influence of digital technologies (Furnari, 2020), demand for digital skills is rapidly growing (Van Laar, 2020), change of the business models is happening (Li, 2020), creative process and audience behaviour is changing (Rudman, et al., 2015).

The aim of the article is to assess the importance of digital transformation in regional creative industries. To achieve this goal, the literature and documents on the digital transformation were analysed, especially about the creative industries. To assess the potential of digital transformation in creative industries, interviews with experts on digital transformation, creative industries and regional development were carried out.

The role of digital transformation in the creative industries in Latvia is a minimally researched issue. The role of digital transformation in higher education (Verina, et al., 2021), in the banking sector (Japparova, Rupeika-Apoga, 2017; Vasiljeva, Lukanova, 2016; Mavlutova, Volkova, 2019), in SMEs (Rupeika-Apoga, et al., 2022) and the impact of Covid-19 on digital transformation (Bikse, et al., 2021) has been studied so far.

Research results and discussion

1. Strategic and regional development guidelines for creative industries in Latvia

Since the definition of the 'creative industries' and the first research in the sector in the UK in the late 1990s (Department for Digital, Culture, Media and Sport, 1998), many countries have become more aware of the economic benefits of creative industries, such as new business and jobs contribution to the country's GDP and exports, but also their social benefits and potential for regeneration and cultural spread of degraded areas. According to 2019, the contribution of the creative industries to the world's gross domestic product (GDP) was 3%, making it a strong, strategic sector of the economy that, if developed wisely and systematically, can boost productivity, competitiveness, sustainable growth, employment and exports potential both globally and in individual regions or cities (United Nations Conference on Trade and

Development, 2019). In Britain, which, as one of the first countries in the world, understood the potential of creative industries and developed this segment strategically and actively, the creative industries contributed GBP 110.9 billion to the economy in 2019, a 43.6% increase since 2010, which means that the sector constitutes a little less than 6% of the economy as a whole. The total number of people employed in the creative industries UK exceeded 2 million (Prospects, 2021). These data clearly demonstrate the important role of creative industries in national and societal development.

In Latvia, the economic potential of cultural and creative industries was first updated at the national level in the late 1990s, when one of the first assessments of the economic importance of the cultural sector emphasized that it could be a profitable sector (Ministry of Culture Republic of Latvia, 1998). Thus, in the study "Creative Industries in Latvia" of the Baltic International Centre for Economic and Political Studies BICEPS, it was calculated that in 2007, 4.8% of the total number of employees in Latvia were employed in creative industries, and 7% of Latvian companies operated in them (Baltic International Centre for Economic and Political Studies BICEPS, 2007). In turn, the State Chancery report entitled "Activities and preconditions for the targeted development of the industry" contains data that in 2013, the creative industries and related industries already employed around 8%, while the number of businesses operating in the sector increased to 10% (Baltijas konsultacijas, Konsorts, 2013).

The first strategic document for the development of cultural and creative industries at the national level is the "Guidelines for Cultural Policy 2014-2020 "Creative Latvia"", in which two of the four main directions for achieving the priorities and policy goals of cultural policy are directly related to the creative industries – development of the competitiveness of cultural and creative industries, as well as promotion of the availability of creative territories and cultural services. The economic factors and impact on the state and local government budgets of these areas were also assessed (Ministry of Culture of the Republic of Latvia, 2014).

The main problems for the development of creative industries in the medium term are only recognized:

- creative industries have poor access to finance, as well as barriers to the commercialization of creative potential;
- the competitiveness and export potential of the creative industries has not been fully exploited;
- no innovation-friendly infrastructure and environment for the development of the creative industries sector;
- insufficiently developed cooperation between the creative industries sector and traditional industrial and service sectors for the implementation of innovation transfer;
- no targeted regular mapping of creative industries and information to the public (Ministry of Culture of the Republic of Latvia, 2014).

However, despite the fact that the document highlighted another important objective: "Promoting creative and economically active human resources and creating a creative environment outside Riga", this topic was not addressed in the context of the creative industries, except in the opinion that "Latvia is characterised by bright creative cities, municipalities and rural areas that are important cultural and concentration of creative activities and targeting cultural capital in their development (Ministry of Culture of the Republic of Latvia, 2014).

Regional issues of creative industries were focused on the research project "Creative industries in small cities: potential and contribution to sustainability" funded by the Latvian Science Council in 2020, which was implemented in the programme of Fundamental and Applied Studies (FLPP). It analyses the activities of cultural and creative companies and creative individuals in small towns in Latvia, reveals the peculiarities

of specific networks of creative companies and individuals, the opinions of small town residents and the activities of creative companies to promote sustainable urban development (Latvian Academy of Culture, 2020). The authors of the study acknowledge that entrepreneurship can be a mechanism by which the knowledge and talents of cultural and creative industries are incorporated into the local economy. According to the basic dimensions defined in The Cultural and Creative Cities Monitor, it is possible to identify three directions for the potential development of cultural and creative industries in small towns - cultural vitality (presence of cultural places and facilities or creative urban environment; supply of cultural and creative industries), creative economy and favourable conditions for the spread of culture and creativity. The results of the survey of the inhabitants of Latvia's small towns confirm that the inhabitants want a creative urban environment and a diverse offer of cultural and creative industries in their city - development of modern industries (design, IT), development of ambitious cultural and recreational activities and investment in timely and urban infrastructure solutions (well-designed environment, renovated buildings). Residents of small towns already have a wide range of cultural services available - mainly those provided by the public sector - music school and / or art school (accessibility index +91), library (+90), museum (+84), culture house (+80). Residents also indicate in the survey that these services are important to them (importance index from +47 to +70). At the same time, however, people also acknowledge that a truly diverse cultural environment is largely unavailable in their homes (crafts and design are the most represented areas). The conclusions of the study point to the insufficiently used potential of creative entrepreneurship and the possibilities to create more targeted creative entrepreneurship support policy measures (Latvian Academy of Culture, 2020).

The "Guidelines for Cultural Policy 2022-2027 "Country of Culture"" can be considered as a step in solving these problems. They entered into force on 1 March 2022. This long-standing, comprehensive document identifies the sustainable development of the cultural and creative industries as one of its five key strategic priorities (along with the cultural offer available to the public, active public participation in cultural processes, preservation and creative use of cultural heritage, as well as the generation of talent and the professional development of cultural workers). The main issues to be addressed in the implementation of this priority are related to the cultural infrastructure and material and technical base, opportunities to work professionally in the field of culture, receiving equal and competitive remuneration for equivalent work, as well as supporting the availability of tools for specific cultural sub-sectors, types of cultural organizations, in particular professional arts institutions, non-governmental organizations and selfemployed creators; at the same time, the international recognition and competitiveness of Latvia's cultural and creative industries must be strengthened (Ministry of Culture of the Republic of Latvia, 2022). The regional aspects of cultural policy have been integrated into all five priority action areas, linking them in general to those set out in another key strategic document, the Regional Policy Guidelines for 2021-2027. However, it should be emphasized that the regional issues of the creative industries in particular are not addressed in this document, more in terms of preserving cultural heritage or the supply of cultural products in general.

At a more detailed regional level – in the counties – the issues of development of creative industries are more addressed in two types of documents: sustainable development strategies (long-term municipal planning document) and development programs (medium-term document with short-term action plans and investment programs). Some municipalities have also developed sectoral strategies for the development of, for example, culture and education. In March 2021, the authors of this study carried out a detailed analysis of the strategic development planning documents of all Latvian municipalities, and it was found that all planning documents contained points and information on the development of creative industries.

In total, the development of creative industries was reviewed in 36 municipal documents, which is approximately 30.5% of all municipalities (including all cities of the Republic, except Jekabpils). Other documents address binding topics, such as the development of cultural infrastructure, support for entrepreneurship, sectoral policies, but these topics are not related to the creative industries (Steinbergs, Cane, 2021). The distribution of these 36 municipalities by Latvia's planning regions is shown in Table 1.

Table 1

Number of municipalities whose planning documents mentioned the development of creative industries (amount, %)

Planning Region	Kurzeme	Zemgale	Riga	Vidzeme	Latgale
Amount	7	6	7	10	6
In % on all municipalities of the planning region	35%	27%	24%	38.5%	29%

Source: Steinbergs, Cane, 2021

It was concluded that the importance of creative industries is emphasized in the planning documents the most in the municipalities of Vidzeme planning region, but the least – In Riga and Zemgale regions, which could be related to other sectors traditionally developed in these regions (Steinbergs, Cane, 2021). As already mentioned, this is the data describing the situation in March 2021, which is the period before the administratively territorial reform entered into force in Latvia. On 1 July 2021, 43 municipalities started to operate instead of 119 municipalities, On 1 July 2021, 43 municipalities started to operate instead of 119 municipalities, but in the context of this study it is not possible to obtain up-to-date data on creative industry issues in the planning documents, as some municipalities have already adopted new development strategies, but some still have previous ones in place, and work is ongoing to develop new strategies. However, this analysis clearly highlights the fact that the potential of creative industries is currently recognized as an important factor in the development of their region or region by about a third of Latvian municipalities.

2. Digital transformation in creative industries

Creative industries are one of the most innovative industries, with very important technological aspects in some industries, influencing both the creative process and the format of the final product. According to Rudman (2015), the UK's creative industries strategy divides the creative industries based on two factors: whether the end product is more analogue or digital, and whether the creative process is most manual or technological. Most creative industries (except art & antiques, crafts, and performing arts) are characterized by technology-aided creative process and a digital type of output. This shows that these industries have a high potential for digital transformation.

According to Salmon (2015), "the *digitisation rate* being equal to the share of revenue from digital business lines in the total global revenues of a sector". Based on this indicator, the creative industries can be divided into three groups (Table 2).

Table 2

Digitisation rate of creative industries value chains

Value chains with a high digitisation rate	Value chains with a medium digitisation rate	Value chains with a lower digitisation rate
Music	Film	Artistic crafts
Videogames and multimedia	Television and radio	Performing arts
-	Books	Cultural heritage
-	-	Visual arts

Source: European Commission, et al., 2017

Both studies show similar results that the music, video game, film, and television industries are creative industries with a higher level of digital transformation.

Nowadays, we can talk about the digital transformation of the "classical" creative industries in a form video streaming, online and mobile games, e-books, immersive content, digital media, screen industries and music tech (European Commission, et al., 2021). The following digital technologies have had the greatest impact on the transformation of creative industries: augmented and virtual reality (AR / VR), artificial intelligence (AI), cloud and blockchain technologies, which are also reflected in the employment rate of such professionals in the creative industries (European Commission, et al., 2021; World Economic Forum, 2018).

In general, it must be acknowledged that creative industries are amongst those industries "with the most important transformation processes caused by digitalisation – impacting business models, consumption patterns as well as content production processes" (Lhermitte, et al., 2014).

The digital transformation process is creating both new opportunities and significant threats to the creative industries. Digitalisation enables companies in these industries to create innovative products and significantly expands market opportunities to reach new local and international audiences. Online platforms are also an invaluable aid in communication and marketing, and experience shows that an increasing percentage of creative industries companies use digital marketing as their primary method of marketing. On the other hand, digital technologies are intensifying competition in the creative industries, which is not always to the advantage of small creative businesses, and especially in regions where the supply of cultural products is sometimes insufficient or one-sided.

There are a number of current factors influencing entrepreneurship in the creative industries and its digital transformation, such as the globalization of cultural processes and the Covid-19 pandemic in the last two years. A typical example is global digital content platforms, which significantly reduce the revenue potential of companies in the creative industries, especially in the audiovisual sector. The crisis caused by the Covid-19 pandemic has highlighted the importance of the presence of cultural services in the digital environment. A study on the impact of cultural consumption and participation in 2020 reveals a significant increase in digital cultural consumption. The most rapid increase in online viewing of Latvian films – if only 16% of the population had done so in 2018, in 2020 48%, which was likely to be significantly boosted by the restrictions imposed by the Covid-19 epidemic on the conduct of spot-site events. There has been a significant increase in the proportion of the population watching or listening to cultural broadcasts online (up from 19% to 45%), watching foreign films online (from 34% to 57%) and listening to music online (from 32% to 54%) (Latvian Academy of Culture, Laboratory of analytical and strategic studies, SKDS, 2020).

The most important directions of action for the development of creative industries and digital transformation are defined in the strategic document "Guidelines for Cultural Policy 2022-2027 "Country of Culture". Those are:

- Support for innovation (technological and non-technological innovation);
- Strengthening competitiveness and supporting exports;
- Stimulating the crossovers-effects of the cultural and creative industries and closer sectoral cooperation with a view to creating innovative solutions;
- Developing a culture of experimentation;
- · Support mechanisms for ecosystem actors in the creative industries;
- · Availability of information and networking opportunities;
- The contribution of the creative industries to overcoming the effects of the crisis caused by the Covid-19 infection (Ministry of Culture of the Republic of Latvia, 2022).

Funding for these lines of action is provided from the state budget and European Union funds, such as the European Regional Development Fund, as well as part of the funding for regional development activities in the field of creative industries and digital transformation is provided in local government budgets. Similarly, during the programming period of the European Union funds 2021-2027, the previous successful support for the business incubator of creative industries continues. In its turn, the plan of the Latvian Recovery Fund submitted to the European Recovery Fund envisages 20% (365.2 million euros) for digital transformation and 20% (370 million euros) for the reduction of inequality (European Recovery Fund, 2021). Part of these funds will also be trained for the development of creative industries and their digital transformation, including in the regions of Latvia.

3. Interviews with experts in creative industries, regional development and digital transformation

In order to assess the potential of digital transformation of creative industries in Latvia in general as well in the regions in particular, interviews with experts on creative industries, digital transformation and regional development were conducted (see Table 3).

Table 3

List of experts

Nr.	Name	Status		
1.	Lolita Neilande-Fridenberga	Former Mayor of Sabile City and Abava Parish Municipality and Former Deputy Director of Culture Center of Talsi City Municipality		
2.	Vita Brakovska	Head of the Board at NGO Knowledge and Innovation Society		
3.	Edgars Cerkovskis	Head of study program Social Entrepreneurship and Circular Economy, lecturer in Economics, Business, E-commerce and Creative Economy		
4.	Ieva Zemite	Lead of Project Creative Industries in Small Towns: Potential and Contribution to Sustainability, associate professor, researcher of Latvian Academy of Culture, Chair of study program Creative industries and growth management		
5.	Janis Vitkovskis	Event technical manager, entrepreneur, lecturer		

Source: created by authors

Each expert was selected to cover at least two of the following topics: creative industries, regional development and digital transformation. Experts have experience in cultural and creative industries,

municipalities and NGOs and in research or teaching related to the regional economy, creative industries and digital transformation.

The interview questions were about:

- the level and opportunities of digital transformation of creative industries;
- the development of the creative industries in regions and the impact of the digital transformation;
- state and local government support for fostering the digital transformation of creative industries.

All interviews were recorded, transcribed, coded and thematic analyses were carried out. The thematic analysis of the interviews allowed to identify the following topics (arranged in order from the most frequently mentioned) related to digital transformation of creative industries in regions:

- openness to new technologies;
- 2) lack of systematic approach of digital transformation;
- 3) role of creative industries in regional development;
- 4) role of Covid-19 in digital transformation;
- 5) lack of awareness of digital transformation.

As mentioned in the introduction, companies in Latvia have a low level of integration of digital technologies in business processes compared to the European Union average. Experts pointed out that this level could be the same or even slightly higher for creative industries. This is due to the innovative nature of these industries and the need to use digital technologies, for example to reach a global audience, in ecommerce and digital marketing. However, the level may be lower in the regions due to a lack of openness to new technologies, a higher proportion of older people here and a lack of understanding of product positioning and marketing.

Experts acknowledged that the digital transformation of companies in the regions is most often seen as use of digital marketing and e-commerce solutions only in the following creative industries: event management, multimedia production and cultural heritage and tourism. However, sometimes this is not done in a systematic and targeted way – such solutions are often only implemented if there is project funding or a support program. Meanwhile, the use of digital solutions is also emerging in related fields, such as gastronomy and hospitality.

As it is already shown in the study of the importance of creative industries in regional policy planning documents, only in a few municipalities was development of creative industries set as a priority (Steinbergs, Cane, 2021). This was also confirmed in expert interviews, adding that local municipalities sometimes see the development of creative industries in connection with the development of the IT sector. The administrative-territorial reform will also have a significant impact on it, which on the one hand will increase the capacity of local municipalities, but on the other hand will create the need for digitalisation of public services. However, according to L. Neilande-Fridenberga, an expert on local municipal issues, the creative industries could appear in the priority list of local municipalities only after the next elections, as a significant development planning process for the newly established counties is underway.

Undoubtedly, political will is essential to foster the development of both the creative industries and the digital transformation. According to experts, the political environment also ensures the attraction of specialists and funding. If the necessary infrastructure is created, such as cultural facilities, educational institutions, business incubators, then it is the political direction that promotes the development of creative industries and digital solutions. Experts mentioned Liepaja, Cesis and Kuldiga as positive examples, but the

example of Ventspils shows that the creation of infrastructure (e.g. Theater House, Concert Hall) and available funding do not give the desired effect in the development of creative industries in the city.

On the other hand, the digital transformation of the creative industries is also influenced by the level of awareness of it within companies themselves. Experts pointed out that the creative industries in the regions focus more on e-commerce or digital marketing solutions rather than changing their business model. Use of digital content is also underdeveloped in most of the creative businesses. Awareness-raising can be improved, for example, through exchange visits, training, networking, international projects and participation in business incubators. The most important is to change the culture of companies so that the importance of digital transformation is understood at both management and employee level.

Experts agreed that the restrictions caused by the Covid-19 pandemic have highly contributed to the digital transformation of creative industries. While in some cases this change has been temporary, in others it will be further strengthened. Given the changes in mobility and demand, the use of digital technologies will help to reach different and new audiences and diversify sources of income. At the same time, other related processes are taking place, such as rural production and agricultural companies are starting to offer creative industry products, such as in cultural tourism, gastronomy or wellbeing. Consequently, the digital transformation of the creative industries is accompanied by the creative transformation of the "traditional" industries.

Conclusions, proposals, recommendations

- 1) Over the last two decades, many countries have become aware not only of the economic benefits of creative industries, such as the creation of new businesses and jobs, their contribution to national GDP and exports, but also of their social benefits, such as innovation, creativity and culture. These factors are also very important in regional development.
- 2) Latvia also has a series of strategic planning documents for state and local governments, which define the main directions for achieving the priorities of cultural policy, and also focus on factors such as developing the competitiveness of cultural and creative industries, as well as promoting the availability of creative sites and cultural services. However, a detailed analysis of these documents leads to the conclusion that the assessment of regional development aspects of these industries as well as the potential for digital transformation is insufficient and should be developed.
- 3) The results of the interviews showed that the most important factors that reduce the importance of digital transformation in the creative industries in the regions are: the level of awareness of entrepreneurs about digital transformation and the openness of entrepreneurs and society to the use of new technologies. On the other hand, the importance of the digital transformation is enhanced by the innovative nature of the creative industries and the use of technology to create content and products.
- 4) In order to increase the importance of digital transformation in the creative industries in the regions, it is necessary to provide opportunities for companies to learn about best practices and opportunities of digital transformation. Both state support programs and municipal initiatives play an important role.

Bibliography

- 1. Arkan, C. (2016). Digital Transformation: Seven Steps to Success. How businesses can stay relevant and competitive in today's new digital era. Retrieved: https://news.microsoft.com/uploads/2017/02/Digital-transformation-seven-steps-to-success-by-Caglayan-Arkan.pdf Access: 18.03.2022.
- 2. Baltijas konsultacijas (Baltic Consultation), Konsorts (Consort) (2013). *Latvijas radoso industriju darbiba un prieksnoteikumi nozares merktiecigai attistibai (Activities and prerequisites for the targeted development of Latvia's creative industries*). Retrieved: https://www.km.gov.lv/sites/km/files/zinojums-

- latvijas20radoso20industriju20darbiba20un20prieksnoteikumi20nozares20merktiecigai20attistibai1.pdf Access: 22.03.2022.
- 3. Baltic International Centre for Economic and Political Studies BICEPS (2007). *Radosas industrijas Latvija* (*Creative industries in Latvia*). Retrieved: https://culturelablv.files.wordpress.com/2009/04/ri-apskats2007.pdf Access: 21.03.2022.
- Bikse, V., Lusena-Ezera, I., Rivza, P., Rivza, B. (2021). The Development of Digital Transformation and Relevant Competencies for Employees in the Context of the Impact of the COVID-19 Pandemic in Latvia. Sustainability, 13(16), 9233. Retrieved: https://www.mdpi.com/2071-1050/13/16/9233/htm Access: 20.03.2022.
- 5. Burkacky, O., Deichmann, J., Hepp, D., Mühlreiter, B. (2018). *A Blueprint for Successful Digital Transformations for Automotive Suppliers*. Retrieved: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/a-blueprint-for-successful-digital-transformations-for-automotive-suppliers Access: 20.03.2022.
- 6. European Recovery Fund (2021). *Eiropas atveselosanas fonds (European Recovery Fund)*. Retrieved: https://www.esfondi.lv/atveselosanas-un-noturibas-mehanisms Access: 25.03.2022.
- European Commission, Directorate-General for Education, Youth, Sport and Culture, Hoelck, K., Engin, E., Airaghi, E., et al. (2017). Mapping the creative value chains: a study on the economy of culture in the digital age: final report. *Publications Office*, 2017, Retrieved: https://data.europa.eu/doi/10.2766/868748 Access: 18.03.2022.
- 8. European Commission, Executive Agency for Small and Medium-sized Enterprises, Roche, C., Izsak, K. (2021). Advanced technologies for industry: sectoral watch: technological trends in creative industries. Publications Office. Retrieved: https://data.europa.eu/doi/10.2826/444418 Access: 18.03.2022.
- 9. Fitzgerald, M., Kruschwitz, N., Bonnet, D., Welch, M. (2014). Embracing Digital Technology: A new strategic imperative. *MIT Sloan Management Review*, 55(2). Retrieved: https://sloanreview.mit.edu/projects/embracing-digital-technology/ Access: 18.03.2022.
- 10. Furnari, S. (2020). Industry or Field? The Value of the Field Construct to Study Digital Creative Industries. In book: *Technology and creativity*, Palgrave Macmillan, pp. 63-86
- 11. Japparova, I., Rupeika-Apoga, R. (2017). Banking Business Models of the Digital Future: the Case of Latvia. *European Research Studies Journal*, Volume XX, Issue 3A, 846-860, 2017. Retrieved: DOI: 10.35808/ersj/749

 Access: 18 03 2022
- 12. Khlystova, O., Kalyuzhnova, Y., Belitski, M. (2022). The Impact of the COVID-19 Pandemic on the Creative Industries: A Literature Review and Future Research Agenda. *Journal of Business Research*, Volume 139, pp. 1192-1210. Retrieved: https://www.sciencedirect.com/science/article/pii/S0148296321007141 Access: 18.03.2022.
- 13. Latvian Academy of Culture (2020). Radosas industrijas mazajas pilsetas: potencials un devumi ilgtspejai (Creative industries in small cities: potential and contribution to sustainability). Retrieved: https://drive.google.com/file/d/1X5XNooHrNwO0VH5X-tanoTfXLtzWPXe6/view Access: 22.03.2022.
- 14. Latvian Academy of Culture, Laboratory of analytical and strategic studies, SKDS (2020). *Kulturas paterina un lidzdalibas ietekmes petijums (Research on the impact of cultural consumption and participation)*. Retrieved: https://www.km.gov.lv/lv/media/11801/download Access: 25.03.2022.
- 15. Ministry of Culture of the Republic of Latvia (1998). *Kulturas sektora tautsaimnieciska nozimiguma novertejums* (Assessment of the economic significance of the cultural sector). Retrieved: https://www.km.gov.lv/sites/km/files/kult_sekt_nozimig_19981.pdf Access: 21.03.2022.
- 16. Ministry of Culture of the Republic of Latvia (2014). *Kulturpolitikas pamatnostadnes 2014.-2020. gadam "Radosa Latvija" (Guidelines for Cultural Policy 2014-2020 "Creative Latvia")*. Retrieved: https://www.km.gov.lv/lv/media/152/download Access: 22.03.2022.
- 17. Ministry of Culture of the Republic of Latvia (2022). *Kulturpolitikas pamatnostadnes 2022.–2027.gadam "Kulturvalsts" (Guidelines for Cultural Policy 2022-2027 "Country of Culture"*). Retrieved: https://www.km.gov.lv/lv/media/22336/download Access: 22.03.2022.
- 18. Li, F. (2020). The Digital Transformation of Business Models in the Creative Industries: A Holistic Framework and Emerging Trends. *Technovation*, Volumes 92-93, April-May, 102012. Retrieved: https://www.sciencedirect.com/science/article/abs/pii/S0166497217300536 Access: 20.03.2022.
- 19. Lhermitte, M., Perrin, B., Melbouci, L. (2014). Creating Growth. Measuring Cultural and Creative Markets in the EU. Retrieved: https://www.academia.edu/13352012/Creating_growth_Measuring_cultural_and_creative_markets_in_the_EU Access: 20.03.2022.
- 20. Massi, M., Vecco, M., Lin, Y. (2020). *Digital Transformation in the Cultural and Creative Industries*. London, UK, Routledge: 294 p.
- 21. Mavlutova, I., Volkova, T. (2019). Digital Transformation of Financial Sector and Challenges for Competencies Development. Atlantis Press: in 2019 7th International Conference on Modeling, Development and Strategic Management of Economic System (MDSMES 2019), pp. 161-166 Retrieved: https://www.atlantispress.com/proceedings/mdsmes-19/125919208 Access: 22.03.2022.
- 22. Pilege, E., Plota, S., Pilegis, G. (2020). Impact of Digital Technologies on Development of Creative Industries. *Digital Presentation and Preservation of Cultural and Scientific Heritage*, 10, 14. Retrieved: https://dipp2020.math.bas.bg/images/pres/19.pdf Access: 15.03.2022.
- 23. Prospects (2021). Overview of the Creative Arts Sector in the UK, 2021. Retrieved: https://www.prospects.ac.uk/jobs-and-work-experience/job-sectors/creative-arts-and-design/overview-of-the-creative-arts-sector-in-the-uk Access: 28.03.2022.

- 24. Rudman, H. (2015). A Framework for the Transformation of the Creative Industries in a Digital Age. Doctoral dissertation, Edinburgh Napier University. Retrieved: https://www.napier.ac.uk/research-and-innovation/research-search/phds/a-framework-for-the-transformation-of-the-creative-industries-in-a-digital-age Access: 28.03.2022.
- 25. Rudman, H., Benyon, D., Hall, H. (2015). A Framework for the Transformation of the Incumbent Creative Industries in a Digital Age. Institute for Informatics and Digital Innovation at Edinburgh Napier University's School of Computing. Retrieved: https://www.academia.edu/12928792/A_framework_for_the_transformation_of_the_incumbent_creative_indus tries_in_a_digital_age Access: 16.03.2022.
- 26. Rupeika-Apoga, R., Bule, L., Petrovska, K. (2022). Digital Transformation of Small and Medium Enterprises: Aspects of Public Support. *Journal of Risk and Financial Management*, 15(2), 45. Retrieved: https://mdpi-res.com/d_attachment/jrfm/jrfm-15-00045/article_deploy/jrfm-15-00045.pdf?version=1642668579 Access: 22.03.2022.
- 27. Steinbergs, K., Cane, R. (2021). Entrepreneurship in Cultural and Creative Industries as a Factor Promoting Regional Development. Proceedings of the International Scientific Conference "Economic science for rural development", pp. 196-206 Retrieved: https://www.esaf.llu.lv/sites/esaf/files/files/lapas/Krajums_Nr_55_2021_08_23%20%281%29.pdf Access: 22.03.2022.
- 28. United Nations Conference on Trade and Development (2019). How the Creative Economy Can Help Power Development. Retrieved: https://unctad.org/news/how-creative-economy-can-help-power-development Access: 28.03.2022.
- 29. Van Laar, E., Van Deursen, A. J., Van Dijk, J. A., De Haan, J. (2020). Measuring the Levels of 21st-Century Digital Skills among Professionals Working within the Creative Industries: A performance-based approach. *Poetics*, 81, 101434 Retrieved: https://www.sciencedirect.com/science/article/pii/S0304422X19300956 Access: 18.03.2022.
- 30. Vasiljeva, T., Lukanova, K. (2016). Commercial Banks and FINTECH Companies in the Digital Transformation: Challenges for the Future. *Journal of Business Management*, (11)
- 31. Verina, N., Titko, J., Shina, I. (2021). Digital transformation outcomes in higher education: pilot study in Latvia. *International Journal of Learning and Change*, 13(4-5), pp. 459-473
- 32. World Economic Forum (2018). White Paper: Creative Disruption: The Impact of Emerging Technologies on the Creative Economy. Retrieved: https://www3.weforum.org/docs/39655_CREATIVE-DISRUPTION.pdf Access: 20.03.2022.