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From digitalisation to AI readiness: an exploratory baseline study of youth labour-market adaptation and employment risks in Latvia

Veranika Khlud
Aziza Makhmudova
Nursuluv Tuganbekova

ABSTRACT

This paper examines whether digital familiarity among young people in Latvia can be interpreted as an analytical baseline for discussing future readiness for work in increasingly artificial intelligence (AI)-mediated labour markets. The study analyses the evidence from the 2023 survey on youth digital behaviour, labour values, and employment strategies as a pre-AI baseline for understanding emerging labour-market vulnerabilities. The study applies a risk-oriented analytical approach combining a literature review with the empirical analysis of two anonymous online surveys conducted in Latvia in 2023. The first survey, which serves as the primary empirical source, included 98 young respondents aged 15-29. The second survey, which is used as contextual evidence, included 113 respondents from Riga's working population engaged in information technologies or the regular use of digital tools. The 2023 data are reinterpreted in light of labour-market, technological, and regulatory developments in 2024-2026.

The findings show that the surveyed Latvian youth demonstrated strong everyday digital engagement and generally positive attitudes towards digitalisation. At the same time, this digital familiarity coexisted with pragmatic labour values, non-linear employment strategies, an education-employment mismatch, side employment, and limited use of educational or knowledge-oriented digital resources. These patterns do not provide direct evidence of AI readiness; rather, they indicate baseline conditions that may become more significant as labour markets become increasingly shaped by AI.

The paper contributes by formally distinguishing between digital familiarity and AI readiness and by showing how pre-AI empirical data can be used as an exploratory baseline for analysing youth labour-market adaptation in a small European economy.

The findings highlight the need for AI literacy, competence-oriented education reform, career resilience, and youth employment policies that address not only access to work but also employment quality, adaptability, and long-term professional sustainability.

KEY WORDS

digital familiarity, AI readiness, youth labour-market adaptation, digital transformation, employment risks, Latvia

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Veranika Khlud
Institute of Mechanical Engineering, Aerospace Technologies and Transport, Riga Technical University, Kipsalas street 6a, 1003, Riga, Latvia,
ORCID 0000-0002-0732-6463

Corresponding author:
e-mail: veranikakhlud@gmail.com

Aziza Makhmudova
Samarkand State Medical University, Department of Social Sciences and Humanities, 18 Amir Temur Street, 100400, Samarkand, Uzbekistan
ORCID 0000-0001-8702-5531

Nursuluv Tuganbekova
Management and Marketing Department, KIMYO International University in Tashkent, 156 Shota Rustaveli Street, 100121, Tashkent, Uzbekistan
ORCID 0009-0001-0627-8877

Introduction

The accelerating digital transformation of economies and societies has become a defining structural process shaping contemporary labour markets. Digitalisation is no longer limited to the introduction of information and communication technologies into organisational processes. It now includes platform-based employment, hybrid and remote work arrangements, data-driven decision-making, algorithmic management, and the rapid diffusion of artificial intelligence (AI) across educational, professional, and entrepreneurial domains. These developments

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reshape not only the technical content of work, but also expectations regarding employability, professional identity, career trajectories, and the meaning of labour for younger generations (Kurian, 2025).

This issue is especially relevant to young people entering the labour market under conditions of technological uncertainty and institutional change. Generation Z is often described as digitally familiar because it has grown up with internet-based communication, mobile technologies, and social media platforms. However, intensive everyday use of digital technologies does not automatically translate into the professional competences required for sustainable labour-market integration (Trifu, 2024). This distinction has become more important with the spread of generative AI across recruitment, education, administration, analytics, and managerial decision-making (Portocarrero Ramos et al., 2025). AI may create new opportunities for flexible work, online learning, entrepreneurship, and productivity growth, but it may also intensify competition, increase skill thresholds, redistribute professional tasks, and reduce the value of routine entry-level tasks that have traditionally supported youth labour-market entry (Lohvinenko, 2025; Tanvi et al., 2025).

In this context, Latvia offers a relevant analytical case. As a small, open economy integrated into the European socio-economic space, Latvia is exposed to global technological trends while also facing structural constraints such as a limited labour-market scale, demographic pressure, regional disparities, migration dynamics, and uneven educational modernisation (Apsite-Berina et al., 2020; Bikse et al., 2021; Ozols & Avotiņš, 2024). Latvian youth are expected to navigate a labour market in which digital competence, flexibility, and continuous learning are increasingly valued, while education-employment mismatch, non-linear career pathways, and employment insecurity remain persistent concerns (Bikse et al., 2021, 2022).

The post-pandemic normalisation of remote work, online communication, and technology-mediated learning further increased the importance of adaptability and digital literacy (Aleem et al., 2023; Müller et al., 2023). These developments have also exposed tensions between flexibility and insecurity (Battisti et al., 2022). In the post-2023 context, this issue has become closely connected with AI literacy, responsible AI use, and the ability to work in AI-mediated environments.

Although the relationship between digitalisation, youth employment, and labour-market change has been widely discussed, important gaps remain. Much of the literature focuses either on macro-level digital transformation, broad digital competence frameworks, or general youth employment challenges, without sufficiently integrating these perspectives into a risk-oriented analysis of youth labour-market adaptation. Limited attention has also been paid to small European economies such as Latvia, where digital transformation is shaped by specific demographic, institutional, and educational conditions (Battisti et al., 2022). In addition, earlier assumptions that young people are naturally prepared for digital work environments require reassessment in the context of generative AI and AI-supported decision-making (Battisti et al., 2022; McPhail et al., 2024).

This article addresses the analytical gap between digital familiarity and AI readiness. Digital familiarity may be visible in frequent internet use, social media activity, online communication, and positive attitudes towards digitalisation. AI readiness, however, implies a more advanced set of capacities, including critical evaluation of AI outputs, awareness of algorithmic limitations, responsible use of AI tools, cybersecurity-related judgement, adaptive learning and the ability to integrate AI into professional workflows. This article does not claim that the 2023 survey data directly measure AI readiness. Instead, it uses the data as a pre-AI baseline to examine which forms of digital familiarity, labour-market orientation, and employment vulnerability were already visible among Latvian youth before the broader institutionalisation of AI-related expectations in 2024-2026.

The study therefore addresses the following research question: to what extent can digital familiarity among young people in Latvia be interpreted as an adequate analytical baseline for discussing future AI readiness in increasingly AI-mediated labour markets? The study aims to analyse youth labour-market adaptation in Latvia by examining digital behaviour, labour values, employment strategies, and perceived risks of digitalisation, and by reinterpreting these findings through the lens of AI-era labour-market transformation. To achieve this aim, the study pursues five objectives: to identify perceived benefits and risks associated with digitalisation; to examine youth labour values and workplace priorities; to analyse employment strategies, including side employment, freelancing, and entrepreneurship; to assess patterns of everyday digital behaviour and knowledge-oriented digital engagement; and to interpret these findings as baseline indicators of potential vulnerabilities and policy needs in the context of AI-mediated labour markets.

Methodologically, the study employs a survey-based empirical design combined with literature-informed contextual reinterpretation. The empirical basis consists of two anonymous online surveys conducted in Latvia in 2023. The first survey, involving 98 respondents aged 15-29, serves as the primary source for analysing youth labour values, employment strategies, and digital behaviour. The second survey, involving 113 respondents from Riga's working population engaged in work involving information technologies or the regular use of digital tools, provides contextual evidence on perceptions of digitalisation among technologically engaged workers. The article treats these data as exploratory rather than nationally representative and uses them to identify patterns that may become more significant under AI-driven labour transformation.

The novelty of the study lies in reframing empirically grounded 2023 survey evidence as a baseline for understanding youth adaptation before the full institutionalisation of AI-related expectations. The article makes three contributions. First, it distinguishes digital familiarity from AI readiness. Second, it shows how pre-AI digitalisation data can be interpreted in the context of AI-era labour-market risks. Third, it applies a risk-oriented perspective to explain how digital familiarity, labour-market pragmatism, and employment vulnerability interact in a small European economy. The findings have implications for education policy, youth employment strategies, career resilience, and AI-related competence development.

1. Literature review

Digitalisation has long been recognised as a main driver of socio-economic transformation, particularly in relation to labour-market restructuring (Kolade & Owoseni, 2022). In the literature, it is associated with productivity growth, new forms of value creation, the expansion of digital business models, and the increasing flexibility of labour-market participation (Pirosçă et al., 2021). At the same time, scholars have also emphasised less favourable developments, including job polarisation, the automation of routine functions, structural unemployment, uncertainty in career planning, and unequal access to digital resources (Vasilescu et al., 2020). Thus, the digital transformation should be viewed not only as a process of technological progress, but also as a broader socio-economic shift affecting work organisation, employability, and long-term career sustainability (Kolade & Owoseni, 2022; Mosinov, 2025).

This discussion is especially relevant to Generation Z, often described as a cohort shaped by digital environments during its formative years (Hovořáková & Pauknerová, 2024). Earlier research portrayed this generation as "digital natives" closely socialised through internet-based communication, mobile technologies, and everyday digital tools (Zahra et al., 2025). More recent studies, however, suggest that young people's labour values and expectations are more complex (Hovořáková & Pauknerová, 2024; Süleymanov, 2025). Flexibility, autonomy, continuous learning, and professional growth remain important, but these preferences emerge within a labour market marked by uncertainty and technological change (Süleymanov, 2025). This suggests that digital familiarity should not be equated with full professional preparedness.

A further important strand of the literature concerns the relationship between education, digital competences, and employability (Portocarrero Ramos et al., 2025). Many studies indicate that formal education systems often lag behind the pace of technological and organisational change, which contributes to the mismatch between qualifications and labour-market needs (Pažur Aničić et al., 2023). This issue is frequently discussed in connection with higher education inflation, the devaluation of formal credentials, and insufficient alignment between academic preparation and workplace realities (Skantz-Åberg et al., 2022). At the same time, digital competence is no longer understood narrowly as the ability to operate devices or communicate online. Rather, it increasingly includes information processing, critical judgement, digital content creation, online collaboration, cybersecurity awareness, and the effective professional use of technological tools (Portocarrero Ramos et al., 2025). For Latvia, this issue is especially important, since educational modernisation and the labour-market relevance of competences remain central concerns in both academic and policy discussions (Basilotta-Gómez-Pablos et al., 2022; Hetmańczyk, 2024).

Recent developments in generative AI have made it increasingly difficult to discuss digital transformation without considering the growing role of artificial intelligence (Wang et al., 2023). While earlier literature often focused on digital skills, automation, and platform participation, the spread of generative AI has shifted attention towards a more demanding concept of labour-market preparedness (Carbone et

al., 2025; Holmström, 2022). In contemporary work environments, the ability to use digital technologies is no longer sufficient on its own; increasing importance is placed on the ability to interact critically and effectively with AI-supported systems (Holmström, 2022). This is especially relevant for youth labour-market research. Much of the existing discourse implicitly assumes that younger generations, because of their intensive exposure to digital tools, have a natural advantage in adapting to technologically transformed workplaces (Portocarrero Ramos et al., 2025). Building on recent studies on digital competence, AI literacy, and technology-mediated employability, this article develops an analytical distinction between everyday digital familiarity and AI readiness (Bentley et al., 2024). Digital familiarity refers to confidence in using communication platforms, online tools, and digital interfaces in daily life. AI readiness, by contrast, implies a more complex set of competences, including the critical evaluation of outputs, awareness of algorithmic limitations, the responsible use of AI tools, cybersecurity-related judgement, adaptive learning, and the ability to integrate AI into professional workflows without overdependence.

The literature also highlights the spread of flexible and non-standard forms of labour-market participation under digital conditions, including remote work, project-based work, self-employment, freelancing, and entrepreneurship (Chinoracky et al., 2025; Khlud & Reshina, 2025). These forms may expand access to work and support flexibility, but they may also weaken institutional protection and shift more risk to individuals. Entrepreneurship occupies a particularly important place in discussions of youth adaptation to digital change, since digital tools can lower barriers to market entry, expand access to knowledge, and support experimentation with business models at a smaller scale. At the same time, the spread of AI gives these tendencies a new dimension: AI-based tools may lower barriers to business activity and increase productivity, yet they may also intensify competition, increase platform dependence, and expose young workers to more unstable and fragmented forms of labour-market participation (Farias-Gaytan et al., 2023).

Although the literature offers substantial insight into digitalisation, youth employment, digital skills, and changing forms of labour, several gaps remain relevant for the present study (Farias-Gaytan et al., 2023). Existing research shows that youth labour-market adaptation under digital transformation should be analysed at the intersection of several connected dimensions: employability and the transition from education to work, the education-employment mismatch and changing skill demand, flexible and non-standard forms of work, and the shift from general digital competence to AI literacy. In this context, digital transformation affects not only access to technologies but also the distribution of risks between young people, educational institutions, employers, and labour-market policy. Latvia remains comparatively underexplored, despite its relevance as a small European economy facing simultaneous pressures of digitalisation, educational adaptation, and youth labour-market restructuring. This study addresses this gap by combining empirical survey data from Latvia with a risk-oriented analytical framework and by interpreting youth labour-market adaptation through the distinction between digital familiarity and AI readiness.

2. Research methods

This study employs a survey-based empirical design combined with a literature-informed contextual reinterpretation. Its empirical core consists of two anonymous online surveys conducted in Latvia in 2023, while the analytical framework integrates a risk-oriented perspective and a post-2023 contextualisation related to AI-driven labour-market transformation.

The empirical analysis focused on five analytical dimensions: (1) the perceived benefits and risks of digitalisation, (2) labour values and workplace priorities, (3) employment and adaptation strategies, (4) entrepreneurial and freelance orientations, and (5) everyday digital and communicative behaviour. These dimensions were first examined descriptively based on the 2023 survey material and then reinterpreted in the light of the AI-related regulatory and labour-market developments of 2024-2026.

The study's overall methodological design is summarised below (Fig. 1).

2.1. Conceptual definitions and operationalisation

A central distinction in this study is the difference between digital familiarity and AI readiness. This distinction structures the study's empirical and interpretive logic. In this article, digital familiarity refers to everyday engagement with digital tools, platforms, and online communication environments. It includes regular internet use, social media activity,

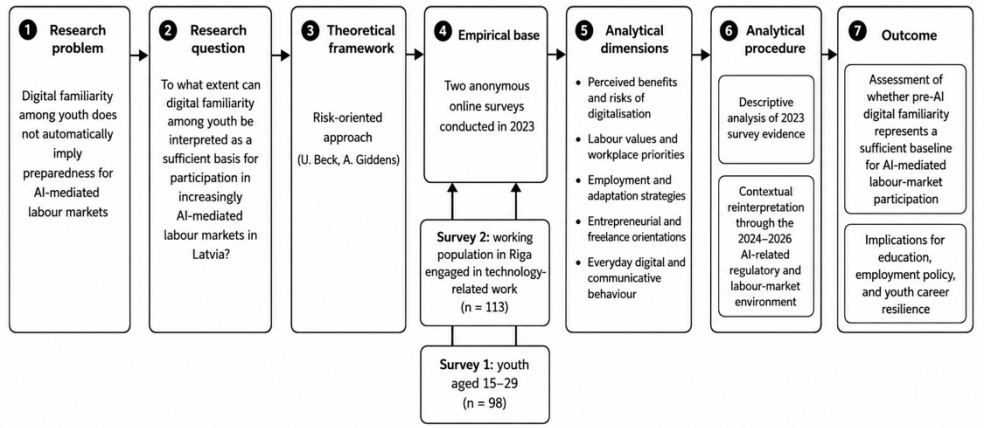


Fig. 1. Methodological design of the study

online communication, online purchasing, and generally positive attitudes towards digitalisation. These indicators reflect practical exposure to digital environments, but they do not by themselves demonstrate the capacity to work critically and effectively with AI-supported systems.

The article develops the distinction between digital familiarity and AI readiness as a conceptual synthesis developed by the authors based on the literature on digital competence, AI literacy, and youth labour-market adaptation. It is not treated as a ready-made measurement scale, but as an analytical distinction used to structure the interpretation of the 2023 survey evidence.

AI readiness is defined more narrowly and is more demanding. It refers to a set of competences required to understand, evaluate, and use AI tools responsibly in educational, professional, and labour-market contexts. These competences include AI literacy, the critical evaluation of AI outputs, awareness of algorithmic limitations, the responsible and ethical use of AI systems, cybersecurity-related judgement, prompt formulation, adaptive learning, and the ability to integrate AI tools into professional workflows. This definition draws on recent literature regarding AI literacy, AI readiness, and digital competence, which emphasises that readiness for AI-mediated environments requires more than general confidence

Tab. 1. Conceptual definitions and operationalisation of key analytical categories

CONCEPT	WORKING DEFINITION	INDICATORS IN THE PRESENT STUDY	ANALYTICAL STATUS
Digital familiarity	Everyday engagement with digital tools, platforms, and online communication environments	Daily internet use; social media activity; online communication; online purchasing; positive attitudes towards digitalisation; use of digital platforms	Directly measured through the 2023 survey data
Labour-market vulnerability	Exposure to unstable, weakly aligned, or non-linear employment pathways	Side employment; freelancing orientation; education-employment mismatch; pragmatic labour values; perceived risks of digitalisation; limited use of educational digital resources	Directly measured and interpreted through a risk-oriented lens
AI readiness	Capacity to understand, evaluate, and use AI tools responsibly in educational and professional contexts	AI literacy; critical evaluation of AI outputs; awareness of AI limitations; ethical awareness; cybersecurity-related judgement; prompt formulation; adaptive learning; integration of AI tools into professional workflows	Not directly measured; used as a conceptual and interpretive lens

Source: author's elaboration on the basis of the literature review and the 2023 survey indicators.

in using digital technologies (Biagini, 2025; Chiu et al., 2024; Holmström, 2022; Wang et al., 2023).

The present empirical data measure digital familiarity, labour-market orientations, and selected employment vulnerabilities. They do not directly measure AI readiness. The 2023 surveys were conducted before the full institutionalisation of AI-related expectations in education and labour-market policy. Therefore, the study does not claim that the data provide direct evidence of young people's ability to use AI tools, evaluate AI-generated outputs, recognise algorithmic bias, or work with AI-supported systems. Instead, AI readiness is used as an analytical lens through which the 2023 evidence is reinterpreted in the 2024-2026 context.

For this reason, the article distinguishes among three analytical categories. The first category is digital familiarity, which is empirically observed in the survey data. The second category is labour-market vulnerability, observed through indicators such as pragmatic labour values, side employment, the education-employment mismatch, and the limited use of knowledge-oriented digital resources. The third category is AI readiness, which is not directly measured but is conceptually derived from the literature and used to interpret why the observed patterns may become more significant in AI-mediated labour markets.

The operationalisation of these concepts is presented below (Table 1).

This operationalisation clarifies the scope of the empirical claims made in the article. The survey data support conclusions about digital familiarity, labour-market orientations, and selected employment vulnerabilities, while AI readiness is used as a conceptual and interpretive lens.

2.2. Theoretical framework: risk-oriented approach

The study's theoretical basis is informed by the concept of the risk society, particularly as developed by Ulrich Beck and Anthony Giddens (Clarke, 1994; Gluck, 1993). Within this framework, technological and socio-economic progress is understood as inherently ambivalent: it generates new opportunities while simultaneously producing new forms of uncertainty, inequality, and vulnerability. Applied to the youth labour market, this approach makes it possible to analyse digital transformation not merely as a neutral process of modernisation, but as a development that reshapes career pathways, employment conditions, and the distribution of risks between institutions and individuals. This perspective is particularly relevant when examining young labour-market participants, who often face uncertainty about qualifications, work experience, social protection, and long-term employability.

This risk-oriented approach shaped the selection and interpretation of the empirical indicators used in the study. Digital familiarity was treated as a potential resource for adaptation, while the education-employment mismatch, side employment, pragmatic labour values, the limited use of educational digital resources, and a freelance or entrepreneurial orientation were interpreted as indicators of possible labour-market vulnerability. In this way, the study examines digitalisation not only as technological progress, but also as a process that redistributes adaptation risks among young people, educational institutions, employers, and labour-market policies.

2.3. Methodological positioning of the 2023 data

The empirical component of this study is based on two surveys conducted in 2023 and should therefore be interpreted with an explicit temporal positioning. Rather than claiming to capture the full labour-market reality of 2026, this paper uses the datasets as baseline evidence reflecting youth attitudes, labour values, perceived opportunities, and digitalisation-related risks at a stage preceding the full-scale diffusion of generative artificial intelligence in everyday educational and labour-market practices. This positioning is methodologically important because it allows the study to examine how Latvian youth entered the current phase of AI-accelerated labour-market transformation, rather than retrospectively attributing later developments to earlier respondents.

Such an approach is particularly justified in the present case. The original survey material captures a transitional moment in which digitalisation was already shaping work, education, communication, and entrepreneurial behaviour, yet the regulatory, organisational, and cognitive implications of generative AI had not fully materialised. At the EU level, the AI Act entered into force on 1 August 2024; prohibitions and AI literacy obligations began to apply from 2 February 2025, while obligations for general-purpose AI models became applicable from 2 August 2025. These milestones indicate that the normative and institutional environment surrounding digital

work and digital competence has changed significantly since the collection of the primary empirical material.

The temporal distance between the original data collection and the current publication context provides analytical value because it allows the 2023 findings to be interpreted as a pre-AI or early-AI baseline. This positioning makes it possible to examine whether the forms of digital familiarity, labour-market flexibility, and competence patterns observed among Latvian youth in 2023 can serve as baseline indicators for understanding adaptation to the more demanding environment that emerged in 2024-2026.

Methodologically, the study therefore combines historically bounded primary evidence with an updated interpretive framework. The empirical data remain unchanged, but their analytical reading is expanded through more recent literature, current labour-market discussions, and post-2023 regulatory developments. This design does not seek to present the surveys as direct measurements of AI adoption in 2026. Instead, it uses them to identify structural tendencies in youth labour-market adaptation that acquired additional significance once digital transformation moved from general digitalisation to the AI-driven reconfiguration of work, learning, and employability.

This methodological strategy is consistent with a risk-oriented analytical approach. The 2023 data make it possible to identify vulnerabilities, expectations, and behavioural patterns that existed before the wider institutionalisation of AI-related requirements. Reinterpreting these findings in the light of the 2024-2026 context allows for a more nuanced understanding of youth preparedness, revealing not only the opportunities associated with digital transformation but also the risks arising from the gap between everyday digital familiarity and the more advanced capacities now required in AI-mediated work environments.

2.4. Empirical basis, sampling, and survey procedure

The study's empirical basis consists of two anonymous online surveys conducted in Latvia in 2023. The surveys were used as complementary sources for analysing youth labour-market adaptation under conditions of digital transformation. The first survey was conducted in February 2023 among young people aged 15-29 and resulted in 98 valid responses. This survey serves as the primary empirical source for examining youth labour values, employment strategies, the education-employment match, entrepreneurial orientation, and everyday digital behaviour. The second survey was conducted in November 2023 among 113 respondents from Riga's working population whose work involved information technologies or the regular use of digital tools. This survey provides contextual evidence on perceptions of digitalisation among technologically engaged workers.

The first survey was distributed online by e-mail through an existing contact base that included individuals considering bachelor's or master's studies, as well as young people seeking employment opportunities. A total of 165 invitations were distributed, 111 respondents started the questionnaire, and 98 valid responses were retained for analysis. This gives a valid response rate of 59.4%. Thirteen incomplete responses were excluded because they lacked sufficient information on the main analytical variables. The sample was designed to include variation in age, gender, education, and place of residence. The sampling strategy can therefore be described as exploratory non-probability sampling with elements of convenience and purposive recruitment; as such, it should be treated as an exploratory non-probability sample rather than a nationally representative sample of all young people in Latvia.

The youth sample included three age groups. Respondents aged 15-19 accounted for 22.4% of the sample (n = 22), respondents aged 20-24 accounted for 44.9% (n = 44), and respondents aged 25-29 accounted for 32.7% (n = 32). By gender, 60.2% of respondents were female (n = 59), 37.8% were male (n = 37), and 2.0% selected another option or did not indicate gender (n = 2). With regard to education, 23.5% were secondary school pupils or graduates (n = 23), 10.2% had vocational education (n = 10), 48.0% were bachelor's students or graduates (n = 47), and 18.4% were master's students or graduates (n = 18). In terms of labour-market status, 31.6% were employed (n = 31), 24.5% were students without regular employment (n = 24), 29.6% combined study and work (n = 29), and 14.3% were seeking employment (n = 14). Respondents from Riga accounted for 44.9% of the sample (n = 44), respondents from other Latvian cities for 36.7% (n = 36), and respondents from smaller towns or rural areas for 18.4% (n = 18).

The second survey was distributed online by e-mail to an existing professional contact base. A total of 185 invitations were distributed, 122 respondents started the questionnaire, and 113 valid responses were retained for analysis. This gives a valid response rate of

61.1%. Nine incomplete responses were excluded from the final dataset. The second survey included respondents whose work involved information technologies, digital communication or the regular use of digital tools. Respondents aged 18-29 accounted for 40.7% of the second survey sample (n = 46), respondents aged 30-39 for 33.6% (n = 38), respondents aged 40-49 for 17.7% (n = 20), and respondents aged 50 and above for 8.0% (n = 9). In terms of gender, 57.5% were female (n = 65), 41.6% were male (n = 47), and 0.9% did not indicate gender (n = 1). Most respondents were employed full-time (74.3%, n = 84), while 9.7% were employed part-time (n = 11), 6.2% were self-employed or freelance workers (n = 7), and 9.7% combined study and work (n = 11).

The two surveys have different analytical roles. The first survey is used as the principal empirical basis for conclusions about youth labour-market adaptation. The second survey is not treated as a youth survey and is not used to make direct claims about Latvian youth. It provides only contextual evidence on how digitalisation was perceived by technologically engaged workers in Riga shortly before the wider institutionalisation of artificial intelligence-related expectations in 2024-2026. Accordingly, all conclusions concerning youth labour values, the education-employment mismatch, employment strategies, and everyday digital behaviour are based primarily on the February 2023 youth survey.

The questionnaires combined single-choice and multiple-choice items and were designed for an exploratory analysis of digitalisation-related attitudes, labour values, and labour-market orientations rather than as psychometric scales for measuring AI readiness. The main thematic blocks covered the perceived benefits and risks of digitalisation, workplace priorities, employment strategies, side employment, freelancing, entrepreneurial intentions, the education-employment match, internet use, social media activity, online purchasing, communication channels, and access to educational or scientific digital resources. For multiple-response items, percentages indicate the share of respondents selecting each option and therefore may exceed 100% in total. For single-choice items, percentages are calculated using the relevant valid-response denominator.

Several key survey questions were used in the present analysis. For labour values, respondents were asked: "Which factors are most important to you when choosing a workplace?" Multiple answers were allowed. The response options included a high salary, favourable working conditions and schedules, the possibility of combining work and family responsibilities, relative independence at the workplace, the application of knowledge and qualifications, positive relationships within the team, career growth, a contribution to society, work without excessive stress and overtime, innovative projects, collaboration with qualified colleagues, employment in a prestigious company, and access to social benefits and guarantees. For the education-employment match, respondents were asked whether their current or most recent

Tab. 2. Overview of the empirical datasets used in the study

SURVEY	PERIOD	TARGET GROUP	VALID RESPONSES	RECRUITMENT PROCEDURE	ANALYTICAL ROLE
Survey 1	February 2023	Young people aged 15-29 in Latvia	98	Online questionnaire distributed by e-mail to an existing contact base of prospective students and job seekers	Primary empirical source for youth labour values, employment strategies, the education-employment match, and digital behaviour
Survey 2	November 2023	Riga's working population engaged in work involving information technologies or the regular use of digital tools	113	Online questionnaire distributed by e-mail to an existing professional contact base	Contextual evidence on perceptions of digitalisation among technologically engaged workers; not treated as a representative youth sample

Source: author's elaboration on the basis of the literature review and the 2023 survey indicators.

work corresponded to their field of education or specialisation. Responses were coded as "corresponds to the field of education", "partly corresponds", "does not correspond", and "not applicable". For additional employment, respondents were asked whether they had side employment, freelance work, or another income-generating activity beyond their main work or study. For digital behaviour, respondents were asked about the frequency of internet use, the use of social media, online communication channels, online purchasing, news and entertainment browsing, and the use of educational or scientific digital resources.

Missing data were treated conservatively. Incomplete questionnaires were excluded from the final dataset if they did not contain sufficient information for the main analytical variables. For individual questions, item non-response was handled by using the valid number of responses for the relevant item. As a result, the denominator may vary slightly across individual indicators. No imputation of missing values was applied. Where percentages are reported, they refer to valid responses for the relevant question.

The empirical datasets used in the study are summarised in Table 2.

The methodological implication is that the surveys are used analytically rather than representatively. They provide baseline evidence on digitalisation-related attitudes, labour values, employment strategies, and digital behaviour observed in 2023, while claims about AI readiness remain conceptual and interpretive.

2.5. Analytical framing of the 2024-2026 context

Since completing the empirical phase of this study in 2023, the broader context of digital transformation has shifted substantially. What had previously been discussed primarily in terms of digitalisation, remote work, online communication, and general information and communication technology (ICT) adoption is now increasingly framed through the lens of artificial intelligence, especially generative AI. This shift is not merely technological; it is organisational, regulatory, and socio-economic in nature. It affects how work is structured, how skills are valued, how educational outcomes are interpreted, and how young people position themselves in relation to labour-market opportunities and risks.

One of the clearest indicators of this transition is the emergence of a new EU regulatory environment for AI. The AI Act entered into force on 1 August 2024, with selected provisions applying ahead of the general implementation date of 2 August 2026 (European Commission, 2025). In particular, the prohibitions on certain AI practices and the requirement concerning AI literacy have applied since 2 February 2025, while obligations for providers of general-purpose AI models began to apply on 2 August 2025 (European Parliament and Council of the European Union, 2024). This means that by 2025-2026, digital competence can no longer be treated as a purely informal or market-defined attribute. It is increasingly connected to regulatory expectations, organisational governance, and the responsible use of AI systems in education, employment, and entrepreneurship.

This institutional shift coincides with a broader transformation of skill demand. Recent Organisation for Economic Co-operation and Development (OECD) evidence shows that generative AI is increasingly viewed not only as a productivity tool but also as a mechanism for compensating for skill shortages and improving employee performance. In a 2025 OECD report based on a representative 2024 survey of more than 5,000 SMEs across seven countries, 65% of SMEs using generative AI reported improved employee performance, while 39% stated that it helped compensate for skill gaps (OECD, 2025). At the same time, the AI's growing role also implies higher expectations for workers' ability to evaluate outputs critically, use digital systems responsibly, and integrate AI tools into more complex professional workflows.

For youth labour-market analysis, this development is particularly important. Earlier discussions of digital competence often assumed that younger generations possess an inherent advantage due to early and intensive exposure to digital technologies. However, the post-2023 environment suggests that everyday familiarity with digital platforms, social networks, and online communication should not be conflated with genuine preparedness for AI-mediated work. The emerging distinction is between general digital familiarity and strategic AI readiness. The latter includes not only the technical use of digital tools, but also critical information evaluation, ethical awareness, cybersecurity-related judgement, adaptive learning capacity, and the ability to work productively in environments where AI systems increasingly shape workflows and decision-making.

Youth labour-market vulnerability remains relevant in this context. Eurostat data show that youth

unemployment in the EU remained structurally elevated, reaching 15.3% in February 2026 (Eurostat, 2026). This is relevant because an AI-driven transformation may simultaneously expand opportunities for flexible work, digital entrepreneurship, and remote participation, while also increasing competition, intensifying skill thresholds, and reducing the value of routine entry-level tasks that have traditionally served as points of labour-market entry for younger workers (Başol et al., 2023).

Indicators such as a preference for flexibility, side employment, pragmatic labour values, and everyday digital engagement can no longer be viewed solely as responses to digitalisation in a general sense (Crisan et al., 2023). In the 2024-2026 environment, they can be cautiously interpreted as baseline signals of how young people may respond to a more demanding labour market shaped by AI integration, changing employer expectations, and stronger pressure for continuous reskilling (Caushi & Sina, 2025). These patterns therefore provide a basis for discussing professional sustainability, social protection, educational reform, and youth competitiveness in the Latvian labour market.

2.6. Limitations of the study

The study has four main limitations. First, both surveys were conducted in 2023 and therefore reflect youth attitudes, labour values, and digital behaviour before the broader institutionalisation of AI-related expectations observed in 2024-2026. Second, the youth survey was based on an exploratory non-probability sample, limiting the extent to which the results can be generalised beyond the respondents. Third, the online recruitment procedure and the use of existing contact databases may have introduced selection bias, as participants were more likely to be connected to educational, employment, or professional-development networks and reachable through digital communication channels. Fourth, the second survey serves only as contextual evidence on technologically engaged workers in Latvia and was not designed to represent the youth population.

Accordingly, the results should be interpreted as exploratory evidence that helps identify patterns of digital familiarity, labour-market orientation and employment vulnerability among the surveyed groups. While the findings may offer insights relevant to other small European economies facing similar challenges of digitalisation, education-employment mismatch and labour-market adaptation, any transfer of conclusions should remain conceptual and be verified through country-specific research.

3. Research results

3.1. Contextual perceptions of digitalisation among technologically engaged workers

The empirical findings from the November 2023 contextual survey indicate that technologically engaged workers in Riga generally perceived digitalisation positively. The overwhelming majority of respondents associated digital technologies with beneficial outcomes in professional and personal lives. Ninety per cent confirmed a favourable impact of digital technologies overall, while 93.7% linked them to career growth and educational processes. In addition, 86% associated digitalisation with creativity, self-realisation, and self-expression, 51.7% with increased social cohesion and trust, and 66% with broader opportunities for quality leisure.

At the same time, the data reveal that the awareness of negative consequences remained significantly weaker. A total of 24 respondents reported that the transition to remote work increased the time required to complete tasks because of constant distractions such as messengers and email. Furthermore, 41 per cent stated that work intensity had increased as a result of adapting to new technologies. Around 18% expressed concern about insufficient skills for using new software and mobile applications, while fewer than 10% reported insecurity or fear related to learning new technologies. Taken together, these findings show that in 2023, digitalisation was perceived by many technologically engaged respondents primarily through the lens of opportunity, while perceived risks were reported less frequently.

3.2. Labour values and professional orientations of youth

The February 2023 youth survey shows that material and pragmatic considerations played a central role in shaping labour values. The most important factor in choosing a workplace was earning a high salary, selected by 77.4% of respondents (Fig. 2). This was followed by favourable working conditions and schedules (56.3%), the possibility of combining work and family responsibilities (39.2%), and relative independence at the workplace (35.7%). Applying one's

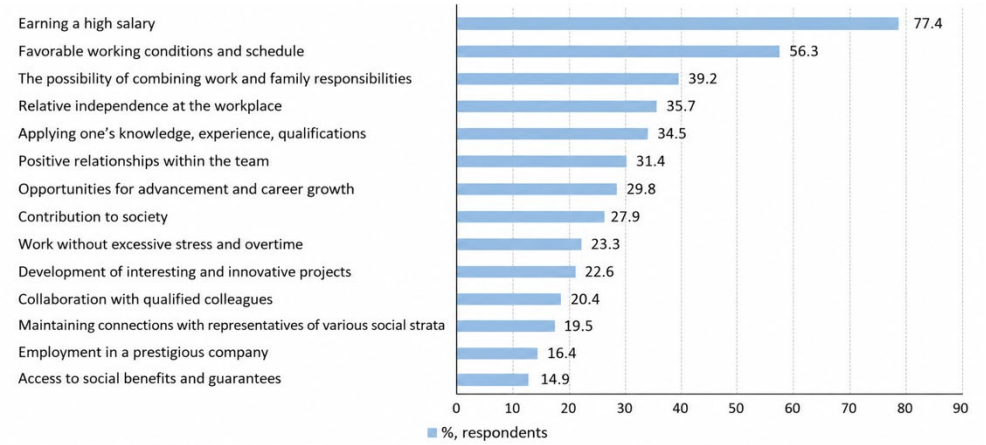


Fig. 2. Labour value priorities of young people in Latvia (%)

Source: author's elaboration on the basis of the 2023 youth survey data.

knowledge, experience, and qualifications was selected by 34.5%, while positive relationships within the team were mentioned by 31.4%. Opportunities for career growth were important for 29.8% of respondents.

By contrast, more institutionally oriented or socially embedded values received less support. A contribution to society was selected by 27.9% of respondents, work without excessive stress and overtime by 23.3%, innovative projects by 22.6%, collaboration with qualified colleagues by 20.4%, employment in a prestigious company by 16.4%, and access to social benefits and guarantees by only 14.9%.

These responses show that income, working conditions, and flexibility were prioritised more strongly than prestige, social guarantees, or a social contribution.

3.3. Youth adaptation strategies in the labour market

The results also demonstrate the importance of adaptive and diversified labour-market strategies. Approximately 32% of respondents reported engagement in additional professional activity, indicating that side employment played a substantial role in youth economic behaviour. Although some of this income was irregular, a significant share of respondents described secondary employment as a stable supplement to their main work.

A mismatch between education and employment was also visible. About 42% of respondents were employed in work unrelated to their initial field of specialisation. In addition, many respondents reported labour-market orientations that did not necessarily correspond to their academic background. Employment opportunities were found in the public sector and management, while only a smaller share selected entrepreneurial or agricultural pathways. These findings indicate that labour-market adaptation among young people often involved moving beyond initial fields of specialisation and responding pragmatically to available opportunities.

Flexibility and autonomy also emerged as important adaptive values. According to the February 2023 findings, autonomy in work was important for 39% of youth, while 42% prioritised the possibility of combining work and family responsibilities. These responses indicate that labour-market participation was evaluated not only in terms of earnings, but also in relation to control over time, work organisation, and compatibility with personal obligations.

Entrepreneurship and freelancing appeared as relevant alternative pathways. The data show that approximately every eighth young person considered freelancing as a possible form of employment, despite the associated risks. Around 35% expressed a desire to engage in business activity, while every fourth respondent evaluated the conditions for starting and developing entrepreneurship in the country as unfavourable. These results indicate both an interest in self-employment and an awareness of the institutional barriers surrounding entrepreneurial participation.

3.4. Everyday digital and communicative behaviour of youth

The findings demonstrate a high level of everyday digital engagement among the young respondents. According to the February 2023 survey, 97.3% used the internet daily, 83.4% reported active interaction

on social networks, and 65.4% made online purchases. Every second respondent regularly browsed news and entertainment resources. These results show that digital environments were already deeply embedded in the everyday lives of Latvian youth before the subsequent acceleration of AI-related transformation.

At the same time, this digital engagement was uneven. Only around one-third of respondents reported using educational resources or platforms containing scientific and reference information. This suggests that youth digital participation was strongest in communication, entertainment, and consumption, while knowledge-oriented digital activity was less prominent.

Platform-based communication was also central. WhatsApp was used daily by 68.4% of respondents and weekly by 24.1%, while Instagram Direct was used daily by 44.6% and weekly by 28.3%.

3.5. Comparative patterns of youth labour-market adaptation

To move beyond descriptive percentages, the youth survey was complemented by exploratory cross-tabulations. Given the exploratory non-probability sample and relatively small subgroup sizes, the analysis focuses on theoretically relevant comparisons rather than all available background variables. These comparisons are descriptive and do not aim to establish causal or statistically generalisable relationships. Their purpose is to identify patterns that help explain how digital familiarity, employment vulnerability, and labour-market adaptation were connected among the surveyed respondents in 2023.

The first comparison concerns the relationship between the education-employment match and side employment. Among respondents whose work corresponded to their field of education, 21.7% reported side employment. Among those whose work partly corresponded to their education, the share was 33.3%. Among respondents whose work did not correspond to their field of education, 52.0% reported side employment. This suggests that the education-employment mismatch may be associated with more diversified and less linear labour-market strategies.

The second comparison concerns the use of educational or scientific digital resources and entrepreneurial orientation. Among respondents who reported using educational or scientific digital resources, 46.9% expressed interest in business activity. Among those who did not report using such resources, the share was 28.8%. This pattern suggests that knowledge-oriented digital engagement may be

Tab. 3. Exploratory cross-tabulation patterns in the youth survey

ANALYTICAL COMPARISON	GROUP	RESULT
Education-employment match and side employment	Work corresponds to education	21.7% reported side employment
Education-employment match and side employment	Work partly corresponds to education	33.3% reported side employment
Education-employment match and side employment	Work does not correspond to education	52.0% reported side employment
Educational digital resources and entrepreneurial intention	Uses educational or scientific digital resources	46.9% expressed entrepreneurial intention
Educational digital resources and entrepreneurial intention	Does not use educational or scientific digital resources	28.8% expressed entrepreneurial intention
Age group and side employment	15-19 years	13.6% reported side employment
Age group and side employment	20-24 years	31.8% reported side employment
Age group and side employment	25-29 years	43.8% reported side employment
Education-employment match and high salary orientation	Work corresponds to education	69.6% selected high salary
Education-employment match and high salary orientation	Work partly corresponds to education	75.0% selected high salary
Education-employment match and high salary orientation	Work does not correspond to education	88.0% selected high salary

Source: author's elaboration on the basis of the 2023 youth survey data.

more closely connected with active labour-market experimentation than general everyday digital use.

The third comparison concerns age and side employment. Side employment was reported by 13.6% of respondents aged 15-19, 31.8% of respondents aged 20-24, and 43.8% of respondents aged 25-29. This indicates that diversified labour-market strategies become more common as young people approach fuller labour-market participation.

The fourth comparison concerns the education-employment match and income orientation. A high salary was selected as an important workplace factor by 69.6% of respondents whose work corresponded to their education, 75.0% of those whose work partly corresponded, and 88.0% of those whose work did not correspond to their field of education. This supports the interpretation that pragmatic labour values may be particularly pronounced among young people whose employment trajectories are weakly connected to their formal qualifications.

The comparative patterns identified in the youth survey are summarised in Table 3.

These patterns show that digital engagement among the surveyed youth was connected with different forms of labour-market adaptation. The education-employment mismatch, a pragmatic income orientation, side employment, and the uneven use of knowledge-oriented digital resources provide the empirical basis for interpreting digital familiarity cautiously in the discussion.

4. Discussion of the results

4.1. Baseline empirical patterns of youth labour-market adaptation

The February 2023 youth survey shows that the surveyed Latvian youth were already strongly embedded in digital environments before the wider institutionalisation of AI-related expectations in 2024-2026. The second survey is used in this discussion only as contextual evidence on perceptions of digitalisation among technologically engaged workers in Riga. The data indicate high levels of everyday internet use, active social media communication, the frequent use of digital communication channels, and generally positive perceptions of digitalisation.

At the same time, the results also show that digital engagement was uneven. Digital participation was strongest in communication, social media interaction, online purchasing, and general online activity. It was weaker in relation to educational, scientific, and knowledge-oriented digital resources. This unevenness limits the interpretation of everyday digital activity as professional digital competence. The surveyed youth were digitally active, but this activity did not necessarily indicate a deeper readiness for complex digital or AI-mediated work environments.

The findings also reveal a pragmatic orientation towards work. A high salary, favourable working conditions, flexibility, and work-family compatibility were prioritised more strongly than prestige, social guarantees, or a contribution to society. This pattern suggests that youth labour values were shaped by practical adaptation to an uncertain labour market. The cross-tabulation results further strengthen this interpretation. Respondents experiencing a weaker education-employment alignment showed a stronger income orientation and higher levels of side employment. This indicates that labour-market adaptation was not always linear or directly connected to formal education.

A further empirical pattern concerns the education-employment mismatch. A substantial share of respondents reported work that did not correspond, or only partly corresponded, to their field of education. This finding points to a structural tension between formal qualifications and actual labour-market pathways. It also helps explain why side employment, freelancing, and entrepreneurial interest appeared as relevant adaptation strategies. For some respondents, diversified employment may reflect opportunity and flexibility. For others, it may indicate insecurity, fragmented labour-market entry, or weak institutional support during the transition from education to work.

Taken together, the 2023 data show three main empirical patterns. First, young people demonstrated strong everyday digital familiarity. Second, their labour-market orientations were pragmatic and flexible. Third, their employment pathways showed signs of mismatch, diversification, and vulnerability. These findings provide the empirical basis for the following interpretation of how pre-AI digitalisation patterns may become relevant in the context of AI-mediated labour-market transformation.

4.2. Interpreting the baseline in the AI-era context

The baseline findings suggest that Latvian youth entered the current phase of labour-market transformation with a generally positive orientation towards digitalisation. This digital confidence was visible in

high levels of everyday digital activity and in the perception of digital technologies as beneficial for career development, education, creativity, and flexibility. However, the same data also reveal a more vulnerable structure of adaptation. Digital engagement was uneven, the awareness of long-term risks was weaker, and labour-market strategies were often pragmatic, diversified, and not always aligned with formal education.

This asymmetry is important in the AI-era context. Digital confidence may support adaptability, but it should not be interpreted as sufficient preparedness for AI-mediated work. Young people may feel comfortable in digital environments while remaining less prepared for the cognitive, ethical, and organisational demands of AI-supported workplaces. These demands include continuous learning, the critical assessment of information, and the ability to integrate new tools into complex professional workflows. Recent research on AI-related skill transformation confirms that artificial intelligence is reshaping workplace skill requirements and increasing the importance of adaptive and higher-order competences (Babashahi et al., 2024).

The labour-value structure identified in the 2023 survey reinforces this interpretation. Salary, working conditions, schedule flexibility, work-family balance, and relative independence were prioritised more strongly than prestige, social guarantees, or a contribution to society. In the baseline data, this pattern indicates a practical adaptation to an uncertain labour market. In the AI-era context, however, such pragmatism becomes ambivalent. It may support flexibility and openness to new forms of work, but it may also normalise fragmented employment pathways if it is not accompanied by competence development, career resilience, and institutional support.

This interpretation is also consistent with recent management literature on generative AI. Generative AI is increasingly discussed not only as a technical tool, but also as a strategic human resource and organisational capability issue (Chowdhury et al., 2024). Evidence from small and medium-sized enterprises also suggests that generative AI may be used to improve employee performance and compensate for skill shortages (Carayannis et al., 2024). These developments raise the threshold of labour-market preparedness. For young workers, everyday digital familiarity becomes only an initial layer of adaptation. It does not automatically protect them from intensified competition, skill obsolescence or unstable forms of technologically mediated employment.

Therefore, the 2023 findings should be interpreted as evidence of a baseline tension. On the one hand, Latvian youth demonstrated openness to digitalisation and flexible labour-market behaviour. On the other hand, the same patterns reveal possible structural vulnerability: weak education-employment alignment, side employment, a pragmatic income orientation, and the uneven use of knowledge-oriented digital resources. In AI-mediated labour markets, these vulnerabilities may become more significant unless education systems, employers, and labour-market institutions support AI literacy, career resilience, and more sustainable pathways from education to work.

4.3. Education-employment mismatch and the limits of formal qualifications

The education-employment mismatch observed in the 2023 youth survey should be interpreted as one of the main indicators of labour-market vulnerability. A substantial share of respondents reported work that did not correspond, or only partly corresponded, to their field of education. The data also show that many respondents used flexible and diversified strategies, including side employment, a freelance orientation, and interest in entrepreneurship. However, these strategies also suggest that the transition from education to work was not always linear or institutionally supported.

In the AI-era context, the education-employment mismatch should be interpreted more broadly than as a classical mismatch between educational content and employer expectations. An AI-driven transformation may accelerate the pace at which skills become outdated and may increase the importance of adaptive learning, critical reasoning, information evaluation, and AI-related judgement. Therefore, the mismatch should not be treated only as an individual career problem. It also reflects a structural tension between changing labour-market requirements and the slower adaptation of educational systems, training models, and skill-formation pathways.

The findings also suggest that flexible labour-market behaviour has an ambivalent meaning. Side employment, freelancing, and entrepreneurial interest may indicate initiative, adaptability, and openness to new work formats. At the same time, they may also reflect insecurity, an unstable income, weak institutional protection, and limited confidence in standard employment pathways. This is consistent with wider discussions on youth entrepreneurship and flexible

work, where digital platforms and self-employment may expand opportunities but also shift more risk to individuals (Javokhir et al., 2025; Vasilescu et al., 2025).

For this reason, youth adaptation should not be assessed only through participation in digital or flexible forms of work. A more complete assessment should also consider the quality, stability, and developmental value of these pathways. In AI-mediated labour markets, career resilience requires more than a willingness to work flexibly. It also requires competence development, access to learning opportunities, legal and social protection, and the ability to use digital and AI-supported tools in a responsible and professionally meaningful way (Rahmah et al., 2025).

This interpretation helps explain why the education-employment mismatch, side employment, and an entrepreneurial orientation are not merely descriptive findings. They indicate how young people manage uncertainty. In the Latvian context, they point to the need for stronger links between education, employability, and labour-market support. They also show why AI readiness should be understood not as an isolated technical competence, but as part of a broader capacity to adapt, learn, and build sustainable career pathways.

4.4. Digital familiarity and AI readiness: a risk-oriented interpretation

The study's central analytical implication is that digital familiarity should not be treated as equivalent to AI readiness. The 2023 data show a strong everyday digital embeddedness among Latvian youth, but these indicators mainly capture communication, online consumption, and platform-based activity rather than advanced AI-related competences.

In earlier debates, Generation Z was often treated as naturally prepared for digital transformation because of its intensive exposure to online tools and communication platforms (Pongrac et al., 2025). The present findings challenge such an assumption. They suggest that being active in digital environments does not automatically translate into deeper labour-market capacities, such as structured information processing, the critical evaluation of digital content, cybersecurity awareness, the professional use of digital systems, or strategic self-positioning in technologically changing work environments (Reddy et al., 2023).

This distinction becomes sharper in the AI era. As defined in Section 3.1, AI readiness involves more than the rapid use of digital tools. It includes the critical evaluation of AI outputs, an awareness of system limitations, responsible use, ethical judgement, and the ability to integrate AI-supported tools into professional workflows (Annapureddy et al., 2025; Chiu et al., 2024). The increasing policy and educational emphasis on AI literacy reflects this shift from informal digital familiarity to more formalised expectations of responsible AI-related competence (Biagini, 2025).

This interpretation is consistent with the risk-oriented perspective applied in the study. The main risk is the institutional overestimation of youth preparedness based on everyday digital exposure. The findings show that digital activity coexists with the education-employment mismatch, pragmatic labour values, side employment, and the limited use of educational or knowledge-oriented digital resources. These patterns suggest that digital confidence may exist alongside structural vulnerability.

The 2023 data should therefore be interpreted as baseline evidence rather than as direct evidence of AI readiness. They show which digital and labour-market patterns were already visible before AI-related expectations became more institutionalised in 2024-2026. These patterns can help identify where future AI readiness policies, educational reforms, and youth employment measures should be focused. For analytical clarity, the findings should be separated into three levels of evidence. First, the surveys directly show high everyday internet use, frequent social media use, active online communication and consumption, pragmatic labour values, side employment, the education-employment mismatch, and the limited use of educational or scientific digital resources. Second, these findings allow cautious interpretation of baseline vulnerabilities that may become more significant in AI-mediated labour markets. Third, conclusions about the actual ability to use AI tools, evaluate AI-generated outputs, recognise algorithmic bias, work with AI-supported systems, or meet AI literacy expectations remain outside the direct empirical scope of the present study and should be examined in future research. The cautious reinterpretation of the key 2023 findings in the context of the AI-mediated labour-market transformation is summarised in Table 4.

The empirical findings should be read as baseline indicators, not as direct measures of AI readiness (Table 4). The table links observed 2023 patterns with possible AI-era risks and policy needs. This supports the main argument of the article: digital familiarity

Tab. 4. Reinterpretation of key 2023 findings in the 2024-2026 context

2023 EMPIRICAL EVIDENCE	AI-ERA INTERPRETATION	IMPLICATION
Positive perception of digitalisation and high everyday digital engagement	An openness to digital technologies does not necessarily indicate readiness for AI-mediated work environments	AI literacy
Strong emphasis on income, flexibility, and autonomy	Pragmatic labour values may reflect adaptation to uncertainty rather than long-term professional stability	Career resilience
Side employment and non-linear employment strategies	Diversified work patterns may indicate adaptability, but also unstable labour-market entry pathways	Employment sustainability
Education-employment mismatch	Qualification gaps may become more visible as AI-driven transformation raises skill thresholds and accelerates skill obsolescence	Curriculum reform
High digital use but limited use of educational or scientific digital resources	Everyday digital participation does not automatically translate into professional or knowledge-oriented digital competence	Information literacy
Interest in freelancing and entrepreneurship	Flexible self-employment may become more attractive, but also more vulnerable under AI-driven competition and platform dependence	Entrepreneurship support

Source: author's elaboration on the basis of the 2023 survey data and their reinterpretation in the 2024-2026 context.

can be a useful starting point for labour-market adaptation, but it is not sufficient without AI literacy, competence development, and institutional support.

4.5. Implications for education, labour-market policy, and management practice

These implications should be interpreted in line with the exploratory baseline character of the study. The data do not show the current level of AI readiness among Latvian youth, but they identify patterns of digital familiarity, labour-market pragmatism, and employment vulnerability that may become more important as AI-mediated work environments expand.

For education policy, the results suggest that digital access and everyday digital use are no longer sufficient indicators of preparedness. Educational modernisation should move beyond the provision of digital tools and should focus more directly on AI literacy, critical digital judgement, information evaluation, and adaptive learning. This includes the ability to assess AI-generated outputs, understand the limits of automated systems, recognise potential bias, and use AI-supported tools responsibly. Such competences should be integrated not only into information technology courses, but also into broader study programmes connected with management, entrepreneurship, communication, social sciences, and professional education.

According to the European Commission's 2024 Digital Decade Country Report, only 45.3% of the Latvian population had at least basic digital skills in 2023, compared with the EU average of 55.6%. The same report indicates that ICT specialists accounted for 4.4% of employment, below the EU average of 4.8%, and that almost 60% of enterprises reported hard-to-fill vacancies for ICT professionals (European Commission, 2024). These indicators suggest that readiness for AI-mediated labour markets cannot be addressed only through individual motivation or everyday digital use. It also requires a competence-oriented education reform and a stronger alignment between education, digital skills, and labour-market demand.

The findings also point to the need for stronger links between education and employability. The observed education-employment mismatch suggests that formal qualifications do not always translate into linear labour-market pathways. In the AI-era context,

this problem may become more serious if curricula do not adapt to changing skill demand. Educational institutions should therefore strengthen career guidance, practical learning, work-based experience, and competence-oriented curriculum reform. Particular attention should be paid to transferable skills, including problem-solving, communication, ethical reasoning, data interpretation, and the ability to learn continuously.

For labour-market policy, the results suggest that youth employment should not be assessed only through participation rates or access to work. Employment quality, stability, and long-term professional sustainability are equally important. Side employment, freelancing, and entrepreneurial interest may reflect adaptability, but they may also indicate fragmented labour-market entry and weaker institutional protection. Policy measures should therefore support young people in building sustainable career pathways, not only flexible income strategies. This includes access to reskilling opportunities, support for early-career transitions, legal literacy for platform and freelance work, and targeted measures for young people experiencing the education-employment mismatch.

The findings are also relevant for youth entrepreneurship policy. Digital and AI-supported tools may lower barriers to small-scale business activity, but they may also intensify competition and increase dependence on platforms. Support for youth entrepreneurship should therefore go beyond motivational training and start-up rhetoric. It should include practical support in digital business models, taxation, client acquisition, the responsible use of AI tools, risk management, and social protection. This is especially important for young people who use entrepreneurship or freelancing as a response to uncertain employment conditions rather than as a fully planned career strategy.

For employers and managers, the results suggest that young workers should not be assumed to be AI-ready simply because they are digitally active. Organisations need to distinguish between everyday digital confidence and the professional capacity to work with AI-supported systems. This has implications for recruitment, onboarding, training, and career development. Employers should provide structured support for AI literacy, responsible technology use, and continuous learning. They should also avoid transferring the full burden of adaptation to young workers without providing institutional learning opportunities.

Management practice should also consider the quality of entry-level work. If AI systems increasingly automate routine tasks, young people may lose some of the traditional opportunities through which they previously gained experience. Employers should therefore redesign early-career roles in ways that combine digital tools with learning, mentoring, and professional development. This is important not only for individual employability, but also for organisational resilience, because firms will need workers who can adapt to changing technologies without losing critical judgement and professional responsibility.

Overall, the Latvian case shows that youth labour-market adaptation is both a technological and an institutional issue. The challenge is not only to increase digital participation, but to ensure that digital participation develops into meaningful professional capability. The study therefore supports a shift from a narrow focus on digital familiarity towards a broader policy and management agenda centred on AI literacy, career resilience, employment quality, and sustainable youth labour-market integration.

Conclusions

This study examined youth labour-market adaptation in Latvia by reinterpreting 2023 survey evidence as a pre-AI baseline for understanding future AI-related employment risks. The study does not claim to measure AI readiness directly. Instead, it shows that the surveyed youth demonstrated strong digital familiarity, positive attitudes towards digitalisation, and active everyday use of digital tools before the wider institutionalisation of AI-related expectations in 2024-2026.

The findings indicate that digital familiarity coexisted with several patterns of labour-market vulnerability. These included pragmatic labour values, the education-employment mismatch, side employment, non-linear employment strategies, and limited use of educational or knowledge-oriented digital resources. The exploratory comparative analysis further suggests that the education-employment mismatch was associated with a stronger reliance on side employment and a stronger income orientation. These patterns show that youth adaptation to digital transformation was already flexible and pragmatic, but not necessarily secure or strategically prepared.

The central conclusion is that digital familiarity should not be used as a proxy for AI readiness. Every-

day use of digital platforms, online communication, and social media may support adaptation to digital environments, but it does not automatically imply the ability to evaluate AI outputs, understand algorithmic limitations, use AI tools responsibly, or integrate AI-supported systems into professional workflows. In this sense, the 2023 data provide an important baseline. They show the starting conditions from which Latvian youth entered the AI-accelerated phase of labour-market transformation.

The study contributes to the literature by developing the distinction between digital familiarity and AI readiness as the authors' conceptual synthesis and by applying it to youth labour-market adaptation in a small European economy. This perspective shows that digital transformation is not only a matter of access to technologies. It is also connected to employability, career resilience, education-employment alignment, and the distribution of risks among individuals, educational institutions, employers, and labour-market policies.

From a practical perspective, the findings support the need for targeted AI literacy, a competence-oriented education reform, stronger career guidance, and employment policies that address not only access to work but also employment quality and sustainable career pathways. For employers, the results underline the importance of structured learning support rather than assuming that digitally active young workers are automatically prepared for AI-mediated work.

The study has several limitations. The empirical data were collected in 2023 and therefore do not directly measure the current use of generative AI in education or work. The samples are exploratory and non-probability-based, so the findings cannot be statistically generalised to all Latvian youth. The second survey is used as contextual evidence on technologically engaged workers rather than as a representative youth sample. These limitations define the scope of the conclusions and indicate the need for follow-up research.

Future studies should build on this baseline through follow-up surveys that directly measure AI literacy, AI tool use, prompt formulation skills, the ability to evaluate AI outputs, attitudes towards algorithmic management, perceived substitution risks, and the role of generative AI in education and work. Comparative research across different European labour markets would also help clarify how small economies can support youth readiness for AI-mediated employment while reducing the risks of exclusion, mismatch, and precarious adaptation.

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