

# Assessing Digital Intelligence: Validation and Insights from a Law Enforcement Pilot Survey

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**Abstract:** Digital transformation is integral to optimising business processes, driving greater efficiency and productivity. However, the success relies on effective knowledge management, which ensures that organisational knowledge is harnessed and applied throughout the transformation journey. Digital transformation fundamentally reshapes how organisations operate, demanding not only new technological tools but also new competences, attitudes, and a flexible working environment. As organisations adopt digital technologies, they must develop and manage digital competencies across. Knowledge management systems become essential for capturing, sharing, and updating this rapidly evolving knowledge base, ensuring that workforces can access the latest digital innovations. Digital intelligence is a comprehensive concept that encompasses digital competence— confident and responsible use of digital technologies—and a positive digital attitude, which influences how individuals engage with these technologies. These elements form a holistic understanding of digital intelligence, enabling individuals to effectively navigate and contribute to the digital landscape. An eight-dimensional model served as the measurement tool in our Digital Intelligence pilot study. The initial quantitative phase of scale validation centered on one of the Hungarian Law Enforcement Organisation, facilitating subsequent measurements on the same cohort. In 2024, the online pilot survey was conducted using the LimeSurvey system. The questionnaire is completed by employees of the chosen Hungarian Law Enforcement Organisation in Hungary (n=180). The aim of the research is to evaluate the level of Digital Intelligence within the participants by establishing a comprehensive assessment framework, and analysing the differences in Digital Intelligence across various groups based upon individual characteristics. Each dimension was evaluated using nine statements (3 attitudes, 3 skills, 3 knowledge), assessed across three levels (basic, advanced, and expert). Correlation analysis indicated a strong relationship between the model components, suggesting the instrument's ability to measure digital intelligence as a cohesive and multifaceted construct. Among the target group, age showed no correlation with digital intelligence. Paired t-tests revealed the largest discrepancies in digital dialogue (interacting with others in the digital space) and digital literacy (evaluating, synthesising, and adapting information in the digital space). The scoring mechanism indicated that at least half of the respondents scored in the advanced category across all eight dimensions.

**Keywords:** Digital attitude, Digital competence, Digital intelligence, Digital transformation, Knowledge management

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## 1. Introduction

The rapid development of digital technologies has fundamentally transformed the way people learn, work and interact in society and in workplaces. Navigating in this complex environment requires not only technological skills, but also the integration of digital competence and a constructive digital attitude. These interlinked concepts are increasingly seen as essential for personal, educational and professional success in the digital age. Achieving and maintaining a competitive edge is increasingly linked to the adoption of digital technologies and the rise of Knowledge Management Systems (KMS) within organisations (Sivathanu and Pillai, 2018). These systems and technologies facilitate KM processes by enabling the codification and sharing of knowledge, establishing organisational knowledge directories, and building both internal and external knowledge networks (Alavi and Leidner, 2001; Savickas and Užienė, 2024). The ability to effectively create, store, and share knowledge is now a key predictor of organisational success. Digital technologies are transforming how knowledge is gathered, stored, and transferred (Ediz, 2018). This shift is altering the roles of human workers, redefining qualification requirements, and fostering new forms of collaboration. Advanced knowledge management (KM) functionalities—such as instant access to information and seamless knowledge sharing among employees through digital platforms — are inevitable (Obermayer et al., 2022). As a result, knowledge management is poised to become a crucial factor in ensuring organisational sustainability (Bratianu et al., 2020). By strategically combining knowledge management with digital technologies, businesses can accelerate their digital transformation (DT), drive innovation, and build a sustainable competitive edge in the digital age. However, the mere implementation of digital technologies is insufficient; their effective utilisation cannot be achieved without an adequate level of digital competencies, which may limit the potential for economic growth (Yoo et al., 2018). Another important factor is digital attitude, which refers to individuals' disposition towards digital technologies.

A Hungarian study has highlighted that employee attitudes represent one of the most significant barriers to DT as people often perceive digitalisation and automation as threats. They fear that machines will take over their jobs, which leads to resistance (Obermayer et al., 2022). This may be due to the fact that employees do not have sufficient and adequate knowledge about digital technologies. Machines relieve human workers by taking over monotonous, repetitive, and exhausting tasks, while people perform the value-creating, challenging, and creative activities. Therefore, it becomes necessary to retrain and up-skill the workforce and to develop digital competencies so that individuals can effectively utilise the opportunities provided by technology (Hungarian Central Statistical Office, 2020; Obermayer, 2020). Therefore, for successful DT a holistic view of digital intelligence (DQ) towards digital technologies is essential.

## **2. Theoretical Background**

### **2.1 Digital Transformation and Knowledge Management**

Organisations are re-evaluating their strategic plans to ensure they are prepared and agile in response to changes in business processes through digital technologies (Verhoef et al., 2019) and developing entirely new, innovative approaches (Khilji et al., 2024). They believe that this approach is essential to successfully protect DT initiatives, which are shaped by knowledge management (KM), and to maintain a competitive edge in the market (Lehmann et al., 2022). It is also crucial for organisations to have digitally-skilled and well-trained staff who can effectively manage change and drive innovation, thereby maximising opportunities and minimising risks with greater agility for growth and expansion (AlNuaimi et al., 2022). According to research by Verhoef et al. (2019), organisations undergo DT through three distinct progressive phases, each building upon the previous one to create increasingly sophisticated digital capabilities. The initial stage - digitisation - involves converting analog information and traditional paper-based systems into digital formats (Tekic and Koroteev, 2019), the second stage - digitalisation - encompasses a broader integration of digital technologies throughout business processes and the final phase - DT - represents the most comprehensive and impactful digital change involving fundamental business model innovation enabled by extensive digital capabilities (Verhoef et al., 2019).

According to Nguyen et al (2019), the adoption of digital technologies offers many opportunities, but in many cases the process is challenging and risky for organisations, whether it is "just" the digitisation of simple business processes or a complete DT, i.e. the development of a new business model. DT is significantly shaped by KM and strongly driven by digital technologies. High DQ is essential for employees in KM processes because it enables them to effectively use digital tools and platforms that are fundamental for capturing, sharing, storing and utilising organisational knowledge (García-Holgado et al., 2015). Workforces with strong digital competence can quickly access and manage large volumes of information, collaborate efficiently across digital channels, and contribute to centralised knowledge bases, which are all critical for organisational learning and innovation. It is crucial for organisations to assess and measure their employees' digital skills to quickly identify any gaps and address them through targeted development programs. This proactive approach ensures the workforce remains adaptable and competitive in a rapidly changing digital environment, supporting both organisational growth and effective knowledge management. Workforces who lack digital competence can limit an organisation's ability to capture, share, and use knowledge, ultimately threatening its productivity, innovation, and long-term success (Zheng, 2024).

### **2.2 Digital Intelligence**

This digitalised, modern world requires new skills and attitudes not only at organisational level but also at individual level. On the one hand, there are difficulties with workers' digital competences, which include the use of digital technologies, understanding the opportunities and threats generated by the internet and communicating through online media; on the other hand, there are challenges related to the responsible use of available information and interactive media, and to the interaction with smart technologies, which can be linked to workers' behaviour and digital attitudes. In the era of digitalisation, the availability of information and communication technologies (ICTs) has increased exponentially, and their use requires a critical attitude towards the responsible use of available information and interactive media. DQ is a complex concept, defined by the DQ Institute (2019, p. 12): "Digital Intelligence is a comprehensive set of technical, cognitive, meta-cognitive and socio-emotional competencies grounded in universal moral values that enable individuals to face the challenges of digital life and adapt to its demands. Thus, individuals equipped with DQ become wise, competent and future-ready digital citizens who successfully use, control and create technology to enhance humanity."

DQ Institute (2019) identified 25 different digital literacy, skills and readiness frameworks from the public and organisational sectors, and based on these, developed the DQ Framework. The DQ Framework includes 8

dimensions that cover all aspects of individuals' digital personal and professional lives, and defines 3 levels of maturity. Thus, the model essentially outlines  $8 \times 3$ , that is, 24 competencies, each of which can be further broken down into knowledge, skills and attitudes. This framework has since become one of the most recognised models and has been acknowledged by two major international actors in the fields of research, knowledge dissemination, and standardisation: the Organisation for Economic Co-operation and Development (OECD) and the Institute of Electrical and Electronics Engineers (IEEE). The DQ Institute framework forms the basis of the most DQ measures, and these scales are designed primarily for workforces (Li et al., 2024). Na-Nan et al. (2019) developed a DQ scale for Thai SME employees, while Kulworatit et al. (2021) created an Internet Risk Assessment Scale. Subsequent researchers have applied and adapted the DQ framework in various contexts, including Saputra's (2023) examination of leadership agility, Marnewick and Marnewick (2021) identification of important DQ competencies for South African program managers.

The study presented in the following sections is also based on this framework and represents a pilot survey with a selection of a specific target group.

### 3. Research Framework

The aim of the research is to measure the DQ of the Hungarian law enforcement organisation using our own - protected by a trade mark - measurement scale based on the framework developed by the DQ Institute. The study aimed to answer the following research questions:

**RQ1:** *How can the level of DQ among law enforcement personnel be assessed based on the eight-dimensional model?*

**RQ2:** *To what extent are the dimensions of the DQ measurement tool in strong correlation with each other?*

**RQ3:** *Are there significant differences between the individual dimensions of DQ?*

#### 3.1 Measurement Scale

Based on the previously described DQ framework, the Digital Intelligence Profile (DIP) has been developed. It defines 8 dimensions (digital personality, digital harmony, digital risk, digital protection, digital emotional intelligence, digital dialogue, digital literacy, digital rights), each assessed at 3 levels (basic, advanced, and expert), built upon the triad of knowledge, skills, and attitudes. In total, the 24 areas of competence are evaluated using 72 statements ( $8 \times 3 \times 3$ ). Participants are asked to rate each statement on a 6-point Likert scale, indicating how accurately each statement describes them.

#### 3.2 Data cCollection - Quantitative

The empirical research was based on primary data collected through an online questionnaire administered in August 2024 via the LimeSurvey survey platform. One of the main advantages of this system is its open-source nature, which allows for high variability in survey design and question formats. Respondents completed the questionnaire anonymously. The average response time was approximately 15–20 minutes, as participants were asked to evaluate 72 statements related to DQ. The data collection was conducted within the framework of a national social innovation project, which enabled collaboration with a Hungarian law enforcement organisation. As a result, the target group of the study consisted of law enforcement officers. The selection of this institutional partner provided an additional advantage: participants can be easily reached again in future phases of scale validation, due to a formal cooperation agreement established between the researchers and the organisation. The sampling technique can be classified as non-probability purposive sampling, as the respondents were intentionally selected from a specific occupational group within the public sector to meet the research objectives. The questionnaire was distributed by sending a unique survey link directly to the participating organisation, and employees voluntarily completed the survey based on this invitation.

The analysis was based on the DQ Framework developed by the DQ Institute, which provides a structured model for comprehensively evaluating digital knowledge, skills, and attitudes across eight dimensions. In the first phase of the study, aggregated indices were constructed for each of the eight dimensions, enabling the DQ level of the examined law enforcement organisation to be quantified and compared across dimensions. Subsequent research questions focused on assessing the validity of the measurement tool. The aim was to examine the extent to which the model functions as a coherent system, including the degree of correlation between its various dimensions and the potential presence of redundancy or overlap. Relationships between the dimensions were analysed using Pearson's linear correlation, while differences between dimensions were assessed through two-sample t-tests. The use of these statistical methods was justified by the high level of measurement of the

variables involved. As the aggregated indices were constructed on interval scales, it was methodologically appropriate to compute means and examine differences between them. Furthermore, Pearson’s correlation requires metric-level variables, a condition that was met in this case, thus ensuring the validity of the applied statistical procedures. These analytical approaches provide a basis for evaluating whether the future consolidation of certain dimensions is warranted, or whether refinement of the measurement tool is needed to more accurately reflect the complex structure of DQ.

#### 4. Results

A total of 182 individuals participated in the survey, of which 180 responses were considered valid (n=180). The vast majority of respondents were engaged in intellectual (white-collar) work (81.1%), while only 1.1% were performing manual (blue-collar) tasks. Mixed types of work were reported by 17.8% of the participants. All respondents were employed in subordinate positions, with no external or freelance workers included in the sample. In terms of organisational hierarchy, 21.9% held leadership positions, while 78.1% were non-managerial staff. The gender distribution was nearly balanced: 49.4% of respondents were male, and 50.6% were female.

The age distribution covered a wide range, with the youngest participant being 21 years old and the oldest 64. The median age of the sample was approximately 45 years, with the majority of responses concentrated between the ages of 40 and 57. Regarding place of residence, most respondents lived in small towns (32.8%) or medium-sized towns (38.9%). A smaller proportion resided in villages (15.6%) or communes (10.0%), while only 2.8% lived in large cities. This pattern may reflect the geographic coverage or service area of the law enforcement organisation involved. Based on self-reported net monthly income, there was substantial variation. The lowest declared income was approximately €370, and the highest reached around €2,080. The most frequently reported income range fell between €1,300 and €1,560. However, income data were not provided by 42.3% of the respondents, which may be attributed to the sensitive nature of the question.

##### 4.1 Descriptive Statistics

To answer the first research question, the study applied an index-based approach. Each of the eight dimensions of DIP was measured across three levels (basic, advanced, and expert) through three statements per level: one targeting attitude, one skill, and one knowledge. These items were rated on a six-point Likert scale. As a result, the maximum achievable score per level was 18 points, and each dimension had a maximum total score of 54 points. The analysis relied on the calculation of mean values to express the general level of DQ and highlight differences between dimensions (Table 1.).

**Table 1: Mean values of DQ dimensions. Source: Own editing**

Level / Dimension	Personality	Harmony	Risk	Protection	Emotional	Dialogue	Literacy	Rights
Basic	15,070	14,227	12,0121	13,812	13,899	16,349	13,821	15,458
Advanced	12,6608	12,293	13,445	11,122	14,416	12,527	8,465	12,722
Expert	11,005	10,131	13,066	10,131	13,161	13,041	8,136	10,013
Dimension means	38,736	36,651	38,523	35,065	41,476	41,917	30,422	38,193

The aggregated results clearly demonstrate a descending trend across levels: in all dimensions, average scores were highest at the basic level, lower at the advanced level, and lowest at the expert level. This pattern indicates that the instrument functions appropriately, as it differentiates clearly between degrees of proficiency, with participants scoring higher on foundational digital competences and lower on complex or expert-level digital behaviours. Such a structure supports the internal coherence and gradation capacity of the measurement tool.

In terms of dimensional performance, the highest average basic-level scores were observed in dialogue (16.35), rights (15.46), and personality (15.07), suggesting that participants feel most confident when engaging in digital dialogue, understanding digital rights, and managing their online personality. Emotional intelligence (13.90) also scored relatively high at the basic level, reflecting strong self-reported ability in emotional regulation and empathy in digital interactions. At the advanced level, the highest scores were recorded in emotional intelligence (14.42), risk (13.45), and personality (12.66), indicating a moderate extension of these competences beyond

basic tasks. In contrast, dimensions like literacy (8.47) and dialogue (12.53) showed more modest average scores at this level, suggesting lower self-confidence or less routine use of these skills in more complex contexts.

At the expert level, all dimensions show a marked decline in mean values. Risk (13.07) and emotional intelligence (13.16) remain relatively strong, possibly due to accumulated professional experience, while literacy (8.14) and rights (10.01) register the lowest averages, which may point to knowledge gaps or less familiarity with these specific digital domains at a strategic or expert level. Considering the dimension-level averages (combined across the three levels), dialogue achieved the highest mean score (41.92 out of 54), followed by emotional intelligence (41.48) and personality (38.74). These results highlight the relative strength of interpersonal and self-regulatory competences within the target group. Meanwhile, digital literacy (30.42) and protection (35.07) emerged as the lowest scoring areas, identifying key domains where further training and capacity development would be most beneficial.

Overall, the findings reflect a digitally active but unevenly prepared workforce. Participants demonstrate strong engagement and confidence in relational and emotional aspects of digital life, but more advanced cognitive and protective digital competences remain underdeveloped. This suggests a need for targeted interventions aimed at strengthening digital literacy, protection, and strategic awareness.

#### 4.2 Relationship Analyses

The second and third research questions serve to support the validation of the questionnaire, focusing on the construct validity of the measurement instrument. As a first step, internal consistency was examined using the Cronbach’s alpha coefficient, which indicates the extent to which the items within a given scale measure the same underlying construction (Tavakol and Dennick, 2011). The results show that Cronbach’s alpha values across the eight dimensions ranged between 0.800 and 0.885, which, according to conventional interpretation guidelines, can be considered very good. These values suggest that the items within each dimension form a coherent and internally consistent scale, thus providing a reliable foundation for further statistical analyses. The strength of these coefficients reinforces the appropriateness of the measurement tool for capturing the components of DQ in a valid manner.

In the next step of the validation process, a Pearson correlation analysis was conducted to explore the relationships between the eight dimensions of the DIP model. Table 2 presents the results of this analysis, highlighting the pairwise linear correlations between all constructs.

**Table 2: Correlation analysis on dimensions of DQ. Source: Own editing**

	Personality	Harmony	Risk	Protection	Emotional	Dialogue	Literacy	Rights
Personality		0,687	0,577	0,514	0,592	0,615	0,615	0,603
Harmony	0,687		0,706	0,575	0,485	0,516	0,58	0,587
Risk	0,654	0,706		0,67	0,611	0,639	0,707	0,749
Protection	0,577	0,575	0,67		0,611	0,639	0,707	0,749
Emotional	0,514	0,485	0,611	0,369		0,683	0,403	0,595
Dialogue	0,592	0,516	0,639	0,556	0,683		0,548	0,641
Literacy	0,615	0,58	0,707	0,794	0,403	0,548		0,715
Rights	0,603	0,587	0,749	0,667	0,595	0,641	0,715	

The correlation coefficients (r) range between 0.514 and 0.749, indicating consistently moderate to strong positive associations across all dimension pairs. Importantly, all correlation values were statistically significant at the  $p < 0.05$  level, confirming that the observed relationships are unlikely to have occurred by chance. The strongest correlations were found between Risk and Rights ( $r = 0.749$ ), Risk and Literacy ( $r = 0.707$ ), and Protection and Literacy ( $r = 0.707$ ), suggesting that these constructs tend to be perceived and developed

together. The lowest correlation was observed between Emotional Intelligence and Harmony ( $r = 0.485$ ), which, while still acceptable, may reflect a relatively weaker conceptual connection. Overall, the correlation analysis revealed that the model components are strongly interrelated yet do not exhibit excessively high interdependence. The fact that no correlation exceeds 0.75 helps to rule out construct redundancy, while the consistent strength of associations across all pairs reinforces the interpretation that the scale captures a single, complex construct—DQ. These findings support the structural validity of the model and the coherence of the underlying measurement framework.

To address the third research question, the study investigated whether there are statistically significant differences between the aggregated scores of the various dimensions of DQ. Since each respondent received a score for all eight dimensions, paired sample t-tests were applied to compare the mean values within subjects. The purpose of the analysis was to determine whether the observed mean differences between dimensions are statistically significant across the sample. The results are summarized in Table 3.

**Table 3: Results of the paired t-test along the dimensions of DQ. Source: Own editing**

	Personality	Harmony	Risk	Protection	Emotional	Dialogue	Literacy	Rights
Personality		t=4,147 p<0,05	t=0,432 p>0,05	t=6,7 p<0,05	t= -3,836 p<0,05	t=-5,072 p<0,05	t=12,662 p<0,05	t=1,009 p>0,05
Harmony	t=4,147 p<0,05		t= -3,342 p<0,05	t= 3,513 p<0,05	t= -7,026 p<0,05	t= -8,317 p<0,05	t=9,520 p<0,05	t= -2,176 p<0,05
Risk	t=0,432 p>0,05	t= -3,342 p<0,05		t=7,053 p <0,05	t= -3,836 p<0,05	t= -4,960 p<0,05	t=14,448 p<0,05	t= 1,570 p>0,05
Protection	t=6,7 p<0,05	t= 3,513 p<0,05	t=7,053 p <0,05		t= -8,384 p<0,05	t= -10,810 p<0,05	t=8,079 p<0,05	t= -5,744 p<0,05
Emotional	t= -3,836 p<0,05	t= -7,026 p<0,05	t= -3,836 p<0,05	t= -8,384 p<0,05		t= -0,610 p>0,05	t=13,615 p<0,05	t=5,197 p<0,05
Dialogue	t=-5,072 p<0,05	t= -8,317 p<0,05	t= -4,960 p<0,05	t= -10,810 p<0,05	t= -0,610 p>0,05		t=16,282 p<0,05	t=6,256 p<0,05
Literacy	t=12,662 p<0,05	t=9,520 p<0,05	t=14,448 p<0,05	t=8,079 p<0,05	t=13,615 p<0,05	t=16,282 p<0,05		t=12,846 <0,05
Rights	t=1,009 p>0,05	t= -2,176 p<0,05	t= 1,570 p>0,05	t= -5,744 p<0,05	t=5,197 p<0,05	t=6,256 p<0,05	t=12,846 <0,05	

The findings indicate that nearly all dimension pairs exhibit statistically significant differences ( $p < 0.05$ ), suggesting that participants evaluated their digital competences differently across the dimensions. The largest mean differences were observed between digital literacy and other dimensions, as indicated by the highest t-values (e.g., Literacy–Dialogue:  $t = 16.282$ ; Literacy–Emotional:  $t = 13.615$ ; Literacy–Protection:  $t = 13.615$ ). These findings are consistent with the previously reported mean scores, where the literacy dimension

consistently showed the lowest means. Significant differences also emerged in pairs such as Harmony–Risk ( $t = -3.342$ ) and Emotional–Protection ( $t = -8.384$ ), further highlighting variation in self-perceived competencies.

It is also important to note that beyond statistical significance, the magnitude of the  $t$ -values reflects the extent of the differences. The highest  $t$ -values correspond to the largest mean discrepancies, particularly in comparisons involving the dimensions of communication (Dialogue) and literacy. These results suggest that participants do not perceive their digital skills uniformly across domains. While the instrument measures DQ as a single construct, these findings reinforce the interpretation that its dimensions vary in terms of development within the examined sample.

## **5. Discussion**

This research presents a valuable contribution to the understanding and measurement of DQ. The findings offer important insights into the digital competencies of law enforcement officers. The high Cronbach's alpha values (ranging from 0.800 to 0.885) across all eight dimensions indicate excellent internal consistency, confirming the reliability of the measurement instrument. This robust reliability suggests that the Digital Intelligence Profile (DIP) effectively captures the intended constructs and can be considered a valid tool for assessing DQ. The correlation analysis reveals moderate to strong positive associations between all dimensions ( $r = 0.514$  to  $0.749$ ), supporting the conceptualisation of DQ as a coherent yet multifaceted construct. This finding aligns with the DQ Institute's framework that presents DQ as an integrated set of competencies rather than isolated skills.

The dimensional analysis reveals particular strengths in digital dialogue (highest overall mean of 41.92), emotional intelligence (41.48), and digital personality (38.74). This pattern suggests that law enforcement officers prioritise and have developed stronger capabilities in interpersonal digital communication and self-regulation aspects. This emphasis on communicative and emotional competencies may reflect the nature of law enforcement work, which often requires strong interpersonal skills and emotional management even in digital contexts. Conversely, the notably lower scores in digital literacy (30.42) and digital protection (35.07) highlight potential areas of vulnerability. These findings reveal a critical gap in the ability to evaluate and synthesise digital information and to implement adequate protective measures in digital environments. This gap may present operational risks for law enforcement organisations, particularly as they increasingly rely on digital evidence and must protect sensitive information.

### **5.1 Practical Implications**

The findings reveal important insights for digital skills training and workforce development. While participants show strong confidence in digital dialogue, emotional intelligence, and online personality management, there is a notable disparity when it comes to higher-level cognitive and protective digital competences. This uneven skill profile has practical implications for organisations, educators, and policymakers aiming to support digital readiness. Organisations that neglect digital up-skilling face missed opportunities for growth, wasted resources, and a higher risk of technology implementation failures. This skills gap becomes a strategic liability, reducing competitiveness and the ability to adapt to market changes. DT efforts depend on workforces' readiness and ability to use digital technologies. Without sufficient digital intelligence, investments in digital tools and systems fail to deliver their intended benefits. To address these challenges, organisations must prioritise targeted digital intelligence training and foster a culture of continuous learning and adaptability. This not only bridges the digital competence gap but also ensures that KMS are fully utilised and future-ready. Digitally competent employees can leverage KMS to store, retrieve, and share knowledge efficiently. Without these skills, employees struggle to use digital tools, leading to information silos, knowledge loss, and inefficient workflows.

Targeted interventions are therefore necessary to strengthen digital literacy, especially in relation to timely information access, accurate data processing, and effective communication. Digital literacy is directly linked to process innovation and the ability to adapt to technological change. Workforces without digital competence are less able to contribute to innovation, making the organisation less agile and competitive. Given the law enforcement context, enhancing knowledge of digital rights and cybersecurity protocols is particularly critical—not only for operational effectiveness but also for safeguarding institutional integrity and public trust. In practice, capacity-building efforts should offer role-specific digital training, combining foundational skills with practical case-based learning for higher-level competence development. Leadership programs should incorporate digital strategy and risk communication, equipping decision-makers with the tools to guide DT initiatives. Strengthening digital intelligence holistically will better equip law enforcement personnel to meet the evolving demands of modern policing in a digital society.

## 5.2 Limitations and Future Research

A limitation of our research is that the survey was conducted in a single organisation in Hungary as a pilot.. We are preparing a large sample survey in Hungary, involving hundreds of companies, and we plan to involve specific target groups (secondary school students, retired people, etc.) as a second stage.. Negotiations are also underway with partner institutions abroad, with the possibility of conducting the survey in English in several countries, in the framework of potential cooperation.

## Acknowledgements

Prepared in the "National Laboratory for Social Innovation" project (RRF-2.3.1-21-2022-00013), within the framework of the Széchenyi Plan Plusz program, with the support of the Recovery and Resilience Instrument of the European Union.

**AI declaration:** Authors have not used any AI tools or technologies.

**Ethics declaration:** Ethics approval was not required for this study.

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