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THE IMPACT OF DIGITAL LITERACY ON STUDENTS' ACADEMIC SUCCESS AND CAREER READINESS

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Abstract: In today's rapidly evolving digital world, students' ability to navigate technology has become essential for academic and professional success. This study explores how digital literacy influences students' academic achievements and readiness for future careers, focusing on first-year students at Fergana State Technical University. Using a combination of surveys, digital skills assessments, and interviews with students, teachers, and employers, the research reveals a strong connection between digital literacy and academic results ($r = 0.78$, $p < 0.01$). The findings highlight the need for universities to provide structured digital literacy education to prepare students for the digital demands of the modern workplace. Key recommendations include embedding digital literacy into curricula, improving access to technology, and strengthening ties between universities and employers to align education with job market needs.

Keywords: digital literacy, higher education, academic success, career readiness, Uzbekistan

Introduction

The role of technology in higher education has grown rapidly, transforming how students learn, collaborate, and prepare for their careers. As digital platforms increasingly support education, students are expected to master not only basic technology use but also skills like information evaluation, content creation, and online communication.

Digital literacy goes beyond knowing how to use devices or software. It includes the ability to think critically about information, stay safe online, and use technology to solve problems. Without these skills, students risk falling behind academically and professionally.

According to the National Skills Coalition (2021), about 92% of jobs today require at least some digital skills, with nearly half demanding advanced digital competencies. This makes it crucial for universities to help students develop these skills during their studies.

While many students can handle basic digital tasks—like sending emails or using social media—research shows that advanced skills such as data analysis or critical evaluation of online sources are often lacking. A study of 688 Turkish students found that those with higher GPAs typically had stronger digital skills, and students from more educated families or with more exposure to technology scored better.

Despite its importance, formal digital literacy training is still missing from many university curricula, especially in non-STEM fields. This creates gaps between students, depending on their field of study, background, and access to resources.

Socioeconomic disparities also play a major role. Students from lower-income families often lack access to personal computers or reliable internet. Studies like the ICILS (2021) and UNESCO reports show that wealthier, urban students tend to perform better in digital literacy assessments than their rural or lower-income peers.

The COVID-19 pandemic further exposed these gaps. Students without good digital access

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struggled to keep up with remote learning, and gender differences in fields like programming or data analysis were evident, often influenced by early exposure to technology.

This study sets out to: 1. Measure students' digital literacy levels across different academic disciplines. 2. Explore the link between digital literacy and academic performance. 3. Identify key obstacles to digital literacy, including socioeconomic factors and institutional gaps. 4. Recommend strategies for universities to integrate digital literacy training into their programs.

By addressing these questions, the study contributes to the global conversation on preparing students for success in both academia and the workplace.

Methodology

To explore the relationship between digital literacy, academic performance, and career preparedness, this research used a mixed-methods approach. Surveys, standardized tests, and interviews provided a balanced view of both numerical data and personal insights.

Participants included first-year students from the Faculty of Energy at Fergana State Technical University. The sample was selected randomly to reflect students from different socioeconomic backgrounds.

The study gathered data in three main ways: - **Surveys and questionnaires**: Students evaluated their own digital skills and described how they used technology in their studies. - **Standardized assessments**: Students completed practical tasks measuring their ability to evaluate information, protect their privacy online, and create digital content. - **Interviews**: Teachers and employers offered their perspectives on students' digital readiness and workplace expectations.

The quantitative data, such as survey scores and GPAs, were analyzed statistically to identify patterns. A strong positive correlation ($r = 0.78$, $p < 0.01$) was found between digital literacy and GPA, meaning students with better digital skills usually performed better academically. Qualitative data from interviews were coded by theme to highlight recurring ideas and concerns.

Results

A total of 78 students participated in the study. Results showed that while most students had at least moderate digital literacy, advanced skills like content creation, data analysis, and critical thinking about online information were often weak spots.

Table 1. Digital Literacy Levels Among Students (N = 78)

Level	Number of Students	Percentage
Basic	27	35%
Intermediate	35	45%
Advanced	16	20%

In addition to the correlation between digital literacy and GPA, students with better digital skills expressed more confidence about applying for technology-based jobs. Among surveyed employers, 83% considered digital literacy a deciding factor when hiring.

Discussion

The findings confirm that digital literacy matters—not just for academic achievement but for future job opportunities as well. Students with stronger digital skills consistently perform better in their studies and feel more prepared to enter the workforce.

However, the study also exposed gaps in students' digital preparation, especially for advanced tasks like analyzing data or creating digital content. Socioeconomic background heavily

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influences students' access to the tools and opportunities needed to build these skills.
Key takeaways include: - Digital literacy levels vary significantly among students. - Digital skills correlate strongly with academic success. - Employers value digital skills highly, especially for roles involving online collaboration and digital content creation.
Addressing these gaps requires universities to integrate digital literacy into all areas of study, not just technical fields. Teachers need professional development to teach digital skills effectively, and students need reliable access to digital resources.

Conclusion

In the modern educational and professional world, digital literacy is no longer optional—it's a necessity. This study shows that students with strong digital skills are more likely to succeed in their coursework and enter the job market with confidence.
However, challenges remain, particularly for students from disadvantaged backgrounds or non-technical fields. To bridge these gaps, universities must: - Incorporate digital literacy training across all disciplines. - Expand student access to technology and reliable internet. - Provide professional development for teachers in digital instruction. - Collaborate with employers to align education with industry needs.
Future research should explore how digital literacy impacts students' long-term career success, compare digital needs across academic disciplines, and investigate the growing influence of technologies like artificial intelligence on education and employment.

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