

## Digital Rehabilitation of Incarcerated Women: Possibilities and Future Challenges for North Macedonia\*

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In today's digital world, access to technology and digital literacy is essential for successful reintegration into society, especially for incarcerated individuals. Incarcerated women face significant challenges due to limited access to digital tools and training during their sentences. This digital divide hinders their ability to re-entry, affecting opportunities for employment, communication, and social reintegration. This study aims to assess the digital skills and needs of incarcerated women and design a training program to bridge the digital gap. The goal is to equip them with the necessary digital competencies to help their resocialization, employment possibilities, and overall reintegration. Additionally, the project aims to advocate for the integration of technology in Macedonian prisons. In September 2023, a survey was conducted in the Women's Ward of KPD Idrizovo as part of the DiCapSIW project. The survey assessed the incarcerated women's digital skills and their access to technology. Based on the findings, six digital skills training modules were developed, covering areas such as digital literacy, job readiness, and online communication. The survey revealed a significant lack of digital skills among female inmates. Most respondents lacked basic competencies in areas such as job searching and document creation. However, all expressed motivation to participate in digital skills training, recognizing its importance for resocialization and post-release employment.

**KEYWORDS:** challenges / digitalization / prisons / rehabilitation / North Macedonia

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## **Introduction: What is Digital Rehabilitation?**

The treatment of incarcerated individuals involves an individually determined dynamic system of methods, measures, and procedures applied to the incarcerated person in the institution during the execution of the prison sentence and in the post-penal period. This is done to guide, develop, and promote positive character traits and abilities for the incarcerated person's resocialization or social adaptation in society after serving their sentence (Article 2, Guidelines for Determining the Types and Methods of Treatment of Incarcerated Persons). The treatment can be a penal (while the person is in the institution) and post-penal (once the person leaves the institution).

The treatment of incarcerated individuals is carried out through general treatment measures implemented via regular programs and through specific treatment measures executed through specialized programs. Although treatment starts from the personal characteristics of each convicted person, including their biological, psychological, and psycho-social properties, as well as criminogenic factors, and is based on the principle of individualization and gradualism, it must also include general treatment measures with programs aimed at improving the convicted person's possibilities for easier reintegration into society.

Based on the concept of rehabilitation, which assumes that a safe society is only possible through the treatment of incarcerated individuals and helping them adopt a socially acceptable lifestyle, there is an inevitable need to include digital technologies into this process as result to modern technologies being part of every day's life (Chen, 2017; Day, 2020; Linden & Perry, 1983).

Digital rehabilitation involves the use of digital technologies in the rehabilitation process or supporting convicted individuals in rehabilitation programs. It provides services and support to incarcerated individuals during their imprisonment and during their transition to freedom, aiming to improve employment opportunities through education, vocational training, and addressing specific needs such as addiction treatment or violent behavior (Järveläinen & Rantanen, 2020; Mahlangu & Zivanai, 2023; McDougall et al., 2017).

The use of digital technologies in the treatment process is essential, particularly due to the importance of these technologies in modern life. Reisdorf and Rickard (2018) discuss five areas of daily life where digital technologies can play a key role for incarcerated persons, including:

- Economy – education, vocational training, employment, digital literacy, financial literacy.
- Social connections – family relations, community involvement.
- Personality of the convicted person – identity, hobbies, needs, stress management, well-being.

- Cultural – language needs, pre- and post-release experience.
- Health – physical, mental, recovery.

The implementation of digital rehabilitation is possible through digital service networks, which can be in the form of tablets fixed in rooms or mobile, shared spaces in the institution with desktop or laptop computers connected to a controlled Internet network. This allows incarcerated individuals access to resources and services that can improve their education or professional skills, enhance their treatment, prepare them for release, and communicate with their families via video calls or email (Wilson & DeJuliis, 2016).

Digital rehabilitation can take various forms, but the most used in penitentiary institutions worldwide include (Reisdorf et al., 2021):

- Computer-based education and vocational training – covering all forms of education, from basic literacy to higher education, as well as vocational skills and employment programs.
- Computer-based treatment and behavioral change programs – individual and group programs for assessment, treatment, or support for issues related to mental health, alcohol and/or drug use, sexual offenses, and violent behavior.
- Digital reintegration – supporting reentry into the community through monitoring, information resources, access tools to specific services, recovery support.
- Digital communication channels – written or verbal interaction between convicted persons, family members, and professionals through email, messaging, phone calls, or video conferencing.

### **Female Prison Population in North Macedonia**

The development of the penitentiary system represents an essential prerequisite for the success of the process of resocialization, rehabilitation, and reintegration of incarcerated population. At the same time, the treatment process, together with respect for their dignity and protection from any form of torture, inhumane, and/or degrading treatment or punishment, is inevitably linked with resocialization. This includes not only direct forms of torture but also indirect ones, which primarily relate to the material conditions present in penitentiary institutions.

A properly legally and practically established penitentiary system should facilitate treatment of incarcerated individuals based on the principles of humanity, protection of their interests and integrity, and create conditions within penitentiary institutions that are approximately like those existing outside these institutions.

However, despite the new legal framework and numerous bylaws, the Macedonian penitentiary system still faces weaknesses that consistently pose challenges to its improvement. Primarily, this refers to the issue of overcrowding in correctional institutions (i.e., a higher number of inmates than the capacity of the institutions); inadequate staff along with staff shortages, especially in the resocialization sectors; a high recidivism rate (penological repeat offenses); poor and inadequate material conditions; lack of and inappropriate healthcare for inmates; an ineffective treatment process related to both the lack of staff and the absence of essential treatment measures (such as work engagement and/or education); issues with vulnerable and special categories of inmates; poor and inhumane behavior from prison staff; and corruption.

Very often forgotten as part of this story is the Women's Ward in KPD Idrizovo, the only female penitentiary institution in the country with around 70 incarcerated women there. There is a lack of humane material conditions, with no hot water in the showers, lack of heating, in certain periods overcrowding, no three meals a day, no medical services, no mental health services, lack of hygiene in the toilets and showers, etc.

The Committee for Prevention of Torture (CPT) in March 2021 published a report on its 2019 visit to North Macedonia penitentiary institutions, and one of the issues it noted is the no differentiation of treatment for various categories of incarcerated individuals, and only a few or no purposeful activities for them. Incarcerated individuals informed the CPT that they are confined to their cells for 23 hours, not doing anything else, just listening to radios (COE, 2021, p. 2). Stanojoska during the interviews with incarcerated women in 2021 was informed that they do not have any activities during the day, their working activities (if there are any) are only a few hours a day or during the week. The Helsinki Committee Report about the situation in penitentiary institutions in North Macedonia, informs that incarcerated women do not have any vocational activities and that besides TV and walks in the yard, they have no other activities (HCHR, 2021, p. 24).

### **DiCapSIW Project and Macedonian Experience**

As part of the project "Strengthening the Digital Capabilities and Skills of Incarcerated Women in North Macedonia (DiCapSIW)" (funded by the US Embassy in the Alumni Engagement Fund 2023) a survey was conducted in September 2023 in the Women's Ward of KPD Idrizovo to assess the need for digital skills trainings for incarcerated women. The survey included 31 participants which is more than 50% of the incarcerated women present at the Women's Ward at the time of the research.

The survey has been divided into three parts (demographic characteristics, present digital skills, and the use of digital skills), and included 17 questions.

The goal of the survey was to provide an overview of the digital capacities and skills of the women serving prison sentences at the time. Understanding the needs for acquiring knowledge and digital skills among incarcerated women is essential for designing effective programs that address the digital divide (different treatment in different penitentiary institutions within the country, but also between men and women) in the treatment process within penitentiary institutions.

The research report revealed several important conclusions. First, female inmates are among the marginalized groups excluded from the digital world, as they have no opportunity to make decisions about issues that will affect their future while in a correctional facility. Furthermore, the lack and absence of digital skills pose a significant barrier for inmates in coping with the challenges of daily life outside the facility. The women serving prison sentences do not have experience or skills in creating documents, job searching, or submitting job applications online, and due to the lack of access to digital skills training or computers, they did not have the opportunity to learn or improve their digital skills.

Almost all respondents (30 women) agreed that digital skills training would help them in the process of resocialization, and they are motivated to participate in such training. The research concluded that the limited access to appropriate digital skills, aligned with societal changes and advancements (digitalization), is of particular importance for the treatment, resocialization, rehabilitation, and reintegration process. Investing in the digital abilities and skills of convicted individuals means investing in their potential, their future, and the collective progress of society.

Based on the needs of the respondents and the objectives set within the project, six modules were identified and were recommended for the digital skills training program in penitentiary institutions:

1. Digital technology and digital communication,
2. Digital literacy,
3. Internet browsing,
4. Online communication,
5. Job readiness,
6. Safety in the digital world.

The training aimed to familiarize incarcerated women with basic computer skills and digital literacy to improve their chances of successful reintegration. Through a structured curriculum and practical training, participants will develop proficiency in various computer applications, digital literacy, and Internet usage. The program also seeks to encourage critical thinking, problem-solving abilities, and the development of transferable skills that can enhance their future employment opportunities.

As a result of this, two three days of training have been organized. The training for digital skills took place between 31.01–02.02.2024, and 07.02.2024–09.02.2024, in the Women's Ward of KPD Idrizovo. The main goal of this activity was empowering incarcerated women and to strengthen their digital skills and knowledge. The trainings included 20 incarcerated women, according to their level of education, the severity of the committed crime, and their behavior in the penitentiary institution.

## **Conclusion**

Today, more than ever, having digital skills is crucial as societal changes are reshaping our lifestyle. These skills are increasingly essential for meeting daily needs (communication, education, job searching, critical thinking, online safety, etc.). Therefore, the lack of digital skills significantly affects an individual's life in today's modern world. The digital society has created new conditions, and everyone needs to acquire the knowledge required to function in the digital space.

Incarcerated women face significant challenges in accessing digital tools and developing digital skills that are essential for their reintegration into society. Many of them begin serving their sentences with limited knowledge of technology, and the lack of access to it in the facility further worsens this situation. Those serving long sentences may not recognize the modern world upon release, as they lack experience with the digital tools needed to function in a digital society.

Digital skills trainings should be designed to help incarcerated women primarily in job searching and online applications, communication with family and friends, independent online learning and skill development, participation and communication on social networks, starting online businesses or projects, as well as safety and security in the online space. These skills are not only essential for the personal growth and development of female inmates but also crucial for their successful reintegration into the social community.

North Macedonia with the amendments of the Law on execution of sanctions has included technology in the imprisonment period, but only in the aspect of communication with the outer world. Incarcerated individuals will get the opportunity to communicate with their families via e-mail or by video conferencing (this was also available during the COVID-19 pandemic). But it is still unknown when these new possibilities for incarcerated population will be available as only a few penitentiary institutions have computers at their disposal for incarcerated individuals.

Furthermore, if we have in mind the CPT Reports on the Macedonian penitentiary institutions, where the material conditions are pointed out as one of the key problems, together with corruption, lack of personnel which leads to

absence of treatment process, overcrowding, we are not quite sure whether even these first steps of including technology during imprisonment will be successfully implemented across the penitentiary system in North Macedonia.

In that direction through this analysis, and project activities, our goal was to make authorities understand that technology is crucial part of our everyday lives, and that is why incarcerated population need to be in touch with it during imprisonment, because it will help them to have an easier re-entry process when it comes to employment or administration procedures. Although the number of participants was only 20 (twenty) and the analysis included 31 woman (more than 50% of incarcerated female population), the project team is sure that DiCapSIW is an important first step towards including digital rehabilitation as part of treatment processes in Macedonian penitentiary institutions.

Authorities must find a way how to equip penitentiary institutions with computers/tablets (for example, in the DiCapSIW projects ten laptop computers were bought for the training program, and afterwards were donated to the Directorate of execution of sanctions, so they can be used in the future for these type of activities), and stable Internet connection, so resocialization departments and incarcerated individuals could use the benefits of technology during their treatment process, of course, with limits and surveillance. Penitentiary institutions are far away from the old understanding of them as hell on Earth. Today, modern incarceration should be as much closer to life outside, as that is one of the key parts in the resocialization puzzle.

## References

- Chen, M. (2017). Digital Literacy for Adults: Evidence and Guidelines for Effective Learning Practices. *Journal of Adult Education*, 46(1), 32-40.
- Day, A. (2020). At a crossroads? Offender rehabilitation in Australian prisons. *Psychiatry, Psychology and Law*, 27(6), 939-949. <https://doi.org/10.1080/13218719.2020.1751335>
- Guidelines for Determining Types and Methods of Treatment for Convicted Persons, Official Gazette of the Republic of North Macedonia, 99/19, 220/19, 133/20.
- Järveläinen, E., & Rantanen, T. (2020). Incarcerated people's challenges for digital inclusion in Finnish prisons. *Nordic Journal of Criminology*, 22(2), 240-259.
- Law on the Execution of Sanctions, Official Gazette of the Republic of North Macedonia, no. 99/19, 220/19, 236/22.
- Linden, R., & Perry, L. (1983). The Effectiveness of Prison Education Programs. *Journal of Offender Counseling Services Rehabilitation*, 6(4), 43-57.
- Mahlangu, G., & Zivanai, E. (2023). Offender eLearning: A systematic literature review on re-entry, recidivism, and life after prison. *Cogent Social Sciences*, 9(2), 2246706. <https://doi.org/10.1080/23311886.2023.2246706>
- McDougall, C., Pearson, D. A., Torgersen, T., & García-Reyes, M. (2017). The Effectiveness of Digital Technologies in Prison Education: A Meta-Analysis. *International Journal of Offender Therapy and Comparative Criminology*, 61(3), 329-348.

- Reisdorf, B. C., DeCook, J., Foster, M., Cobbina, J., & LaCourse, A. (2021). Digital reentry: uses of and barriers to ICTs in the prisoner reentry process. *Information, Communication & Society*, 25(14), 2028–2045.
- Reisdorf, B.C. & Rikard, R.V. (2018). Digital Rehabilitation: A Model of Reentry Into the Digital Age. *American Behavioral Scientist*, 62(9), 1273–1290
- Report of the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment for the 2019 visit, available at <https://rm.coe.int/1680a26b8f>
- Report of the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment for the 2020 visit, available at <https://rm.coe.int/1680a359cb>
- Wilson, A. D., & DeIuliis, D. (2016). Digital Literacy and Digital Skills: Developing Critical Digital Competence in Correctional Facilities. In *The Correctional Education Handbook: Strategies for Success* (pp. 45–62). Routledge.