LAW, CRIMINOLOGY & CRIMINAL JUSTICE | RESEARCH ARTICLE

Digital prison rehabilitation and successful re-entry into a digital society: A systematic literature review on the new reality on prison rehabilitation

Eugenia Zivanai¹ and Gilbert Mahlangu²*

Abstract: Digital transformation as a universal phenomenon has created a new reality in prison rehabilitation. Digitization promotes incarcerated people’s social skills, self-esteem, rehabilitation, and re-integration into society. Yet, many offenders are digitally incapacitated because they have never utilised digital technology or because they were denied access to any while incarcerated. The purpose of this study is to fill this gap. In this study, we systematically review the extant literature

ABOUT THE AUTHORS

Eugenia Zivanai is an ICT Officer employed by Zimbabwe’s Corrections Department with working experience in Computer Networks and Systems Design. A holder of a Bachelor of Technology in Information Technology (HIT) and currently studying a Master of Commerce in Information Systems Management with the Midlands State University-Zimbabwe. This paper has just unlocked a passion for academic research and writing. My area of interest is digital inclusion in marginalized communities such as inmates and rural communities in developing countries. My vision is to pursue this journey of research in the area of digital inclusion/exclusion and come up with recommendations for the digital inclusion of those populations.

Gilbert Mahlangu is a holder of a Doctor of Information and Communication Technology from Cape Peninsula University of Technology (CPUT), South Africa. He is currently a Lecturer in the Department of Information and Marketing Sciences at the Midlands State University, Zimbabwe. He teaches Informatics and Business modules. These include but are not limited to, Introduction to Informatics, Strategic Information Management and E-business, Innovation and design thinking, and Applied Research Methods. His research interests are Digital transformation in marginalised communities, Digital inclusion, the Digital divide, and electronic government in developing countries. He participates in policy development for ICT in Agriculture and different presentations supporting ICTs at the university and national levels.

PUBLIC INTEREST STATEMENT

The technology-dependent world that offenders must now re-enter requires the use of touch screens, computers, and the Internet, but many of them have not received any training in how to operate these types of technological or Internet-enabled gadgets. Due to the speed at which the digital world is developing and the sheer number of new technologies being introduced, the world that the convicts knew before being put in prison will probably be very different when they are released. Prisons aim to rehabilitate offenders, but often fall short in preparing inmates for release into our contemporary, technologically advanced society. Most of the prison rehabilitation practice and policies are still offline and do not cater for the online spaces. We conclude that the use of digital rehabilitation could facilitate a smooth transition back into society.
on prison rehabilitation to explain how the inclusion of digital rehabilitation of offenders makes re-entry successful and guarantees enhanced post-prison life in a digitalised society. To the best of our knowledge, this paper—which relies on the Good Lives Model and the Critical Theory Approach—is one of the first systematic literature reviews on digital prison rehabilitation. The Good Lives Model and the Critical Theory Approach are used in combination to investigate the three realms of digital prison rehabilitation: successful re-entry, post-prison life, and the digital society. We found that most of the prison rehabilitation practices and policies are still offline and do not cater for the digital realms. We conclude that the use of digital rehabilitation could facilitate a smooth transition back into society and ensure an improved post-prison quality of life in a technologically advanced society. By combining current digital technologies with augmented and virtual reality researchers in digital prison rehabilitation can create models that foster a new reality of prison rehabilitation.

**Subjects:** Legal, Ethical & Social Aspects of IT; Information & Communication Technology (ICT); Behaviour

**Keywords:** digital prison rehabilitation; digital society; successful re-entry; post-prison life

### 1. Introduction

Prison life does not prepare offenders for managing their lives after release because there are few opportunities for them to use digital technology within the prison system (Andvig et al., 2021; The Centre for Social Justice, 2021; Verbaan et al., 2018). Lack of digital skills significantly reduces one’s prospects of finding work at a decent wage, particularly when combined with a criminal background. Over the recent years, major services such as job seeking, finding a place to live, a network of good friends, and good relations with family and friends are all now embedded in technology and are important for re-entry and post-prison life (Ertl et al., 2019; Wilhelmsson et al., 2017). The principle of normality is linked to the idea of rehabilitation and emphasises that prison life should resemble life outside as closely as possible (Andvig et al., 2021). Given the importance of digital technologies for everyday tasks and the digital exclusion of offenders from the online realms and technology, there is a need for corrections authorities to adapt rehabilitation programs that prepare offenders for re-entry in a technology-dependent world.

Literature reports that there is a tendency in current approaches to prisoner rehabilitation and re-entry to concentrate solely on offline mechanisms with less or no consideration for the online realm (Austin, 2020; Jewkes & Reisdorf, 2016; McKay, 2022; Pulido, 2021). Offenders are among the marginalised groups who are excluded from digital access because they have no power to make decisions on issues that affect their future while incarcerated. Those who have been imprisoned for a long time will not recognize the modern world after being released because they have no experience with the digital tools they will use to function in a digital society (McDougall & Pearson, 2020). While some correctional facilities have implemented ICT for security purposes, convicts’ usage of ICT has taken longer to catch on.

Accessing and using digital devices have become essential to navigating today’s technology-dependent society; therefore, creating a complex situation in which incarcerated people find themselves vulnerable if they do not engage with digital technologies (Reisdorf et al., 2021). Digital transformation as a universal phenomenon has created a new reality in prison rehabilitation. Digitization promotes incarcerated people’s social skills, self-esteem, rehabilitation, and re-integration into society (McKay, 2022; Rantanen et al., 2021). Digital tools may help offenders by allowing them to access justice, preserve family ties, and participate in initiatives that will improve their post-prison life and rehabilitation. An important benefit of allowing personal digital devices in
Prisons is that it might normalise the prison environment more closely with that of the outside world and guarantee that inmates do not remain digitally excluded when they re-enter the digital society (McKay, 2022; Morris & Bans, 2018; Seo et al., 2021; Toreld et al., 2018). This new reality could ensure that offenders are not re-entering a completely inaccessible society.

Yet, many offenders are digitally incapacitated because they have never utilised digital technology or because they were denied access to any while incarcerated (Reisdorf & DeCook, 2018). When they are released from jail, they face discrimination and have worse career opportunities than ordinary citizens due to their criminal records. In addition, their digital exclusion while they were in prison might have compound effects and result in amplified digital and social exclusion. The digital society has created new conditions for society and the Correctional Services need to understand and meet these conditions—hence the need for offenders to be equipped with the skills required in the new normal.

2. Theoretical framework
Reisdorf and DeCook (2018) argue that rehabilitation theory and re-entry research need to account for societal changes resulting from the increasing reliance on digital technologies over the previous two decades. Therefore, as prisons are shifting from the punitive stance to a corrective/rehabilitative mantra technology can be used as a key enabler in the rehabilitation of offenders. Ward and Brown’s model of offender rehabilitation, the Good Lives Model (GLM), suggests that rehabilitation should be centred on promoting the goodness of humans by helping offenders to gain knowledge and skills to enjoy a better life during post-prison life (Ward & Brown, 2006). The GLM of offender rehabilitation is fundamentally a strength-based method and by itself, seeks to give offenders the ability to secure primary human goods in socially acceptable and personally meaningful ways. According to Ward and Brown, the model aims to answer the question of causal pre-conditions for effective rehabilitation readiness. This is one of the concerns that a comprehensive rehabilitation theory should be able to address adequately. However, there are some areas of weakness in preparing the offenders for a digital society. According to Andvig et al. (2021, p. 203), “Re-entry to the society is challenging and inmates often feel unprepared for release [into the digital society]”. Hence, this study concludes that a lack of digital skills makes it difficult for ex-offenders to cope with the challenges of everyday life outside prison (Figure 1).

The study of digital society and its impact on the digital rehabilitation of offenders can fall under the Good Lives Model and the Critical Theory Approach. According to Koltonski (2014), the Critical Theory aims to unmask the ideology falsely justifying some form of oppression. As noted by abolitionists, prisons do little to reform offenders, and at worst they reproduce crime. Rehabilitation is viewed from a radical perspective as an effort by those in authority to impose a harsh system of social control over weak people. Such a critical viewpoint criticises the positivistic understanding of crime that emphasizes individuals while neglecting larger socioeconomic inequalities. The idea that the offending behaviour is caused by a personality flaw in the prisoner, who is thought to be receptive to reform or rehabilitation within the prison environment, is being contested. Correctional facilities deprive inmates of all the basic social and cultural pillars that once formed the core of their identities. Any rehabilitation programme inside a prison must first overcome these terrible processes. Some, like Rothman (1973), flatly reject the idea of rehabilitation, in part because the prisoner has little control over whether to accept such initiatives and in part because the setting in which they are proposed is inappropriate.

In this study, the Critical Theory explains how the independent variable i.e., digital society influences the digital rehabilitation of offenders and drives the two outcomes of re-entry and post-prison life. Based on these two theoretical underpinnings, Correlational Services could see what is lacking in their rehabilitation policies and make concerted efforts to push for prison reforms that include digital skills for rehabilitation. Research conducted so far has been focused on introducing digital technology in corrections institutions for prison administration, digital rehabilitation of offenders and re-entry (Borseková et al., 2020; Ertl et al., 2019; Kaun & Stiernstedt, 2020; Kerr & Willis,
2018; Link & Reece, 2021), however, no research has dwelled on rehabilitation as a driver for both re-entry and enhanced post-prison life. This literature review is conducted to investigate how the digitalised society has influenced digital inclusion in offender rehabilitation and its impact on successful re-entry and enhanced post-prison life. Consequently, the Critical Theory Approach and the Good Lives Model are implemented in tandem to address the following main research question:

How does the inclusion of digital rehabilitation of offenders make re-entry successful and guarantee enhanced post-prison life in a digitalised society?

The following objectives are formulated to answer the main research question:

• To assess how digitalisation of the society has influenced the need for the inclusion of digital rehabilitation for offenders
• To establish if the inclusion of digital rehabilitation of offenders influences successful re-entry and enhanced post-prison life
• To explore how successful re-entry of offenders guarantee an enhanced post-prison life in a digitalised society

The remainder of this paper is organized as follows.

• Section 2: methodology adopted for this study
• Section 3: Results
• Section 4: findings, and
• Section 5: conclusions

3. Methodology
This Systematic Review seeks to collate evidence that fits pre-specified eligibility criteria to answer the specified research question. Several methodologies are available for conducting systematic literature however the authors adopted the SLR method by Kitchenman and Charters (2007) because it provides a comprehensive overview of literature related to a research question and synthesizes previous work to strengthen a particular topic’s foundation of knowledge while adhering to the concepts of transparency and bias reduction. The Kitchenman and Charters’ (2007) guidelines can be divided into four phases: developing the review protocol, defining the selection criteria, performing the review process, and reporting the findings as follows:

3.1. Phase 1
This phase gives a clear description of the research question:

How does the inclusion of digital rehabilitation of offenders make re-entry successful and guarantee enhanced post-prison life in a digitalised society?

Additionally, the research domain is focused on browsing for articles in relevant databases regarding the digital rehabilitation of offenders, re-entry, and post-prison life. The research question is divided into keywords to develop a search string using keywords. The first inclusion criterion considers articles published in the last seven years (2015–2022). Therefore, the following additional criteria were used in later phases of the search process; All articles containing the keyword “digital offender/prisoner/inmate rehabilitation, digital inclusion/exclusion, post-prison life, after release, re-entry, digital society” or some combination that involve other related words were included in the shortlist. The process aggregated a total of 43 articles. These articles were then processed using Mendeley reference management software capable of removing duplicates.
3.2. Phase 2
In this phase, more criteria are used to shortlist the articles and all irrelevant articles are omitted based on their titles and year of publishing, source/database. In this regard, reviews, editorial prefaces, and non-English articles were all discarded. The selection process and its screening resulted in 38 articles.

3.3. Phase 3
In this phase, all the shortlisted articles were read comprehensively for answers related to the research question and objectives.

4. Results
This analysis aimed to investigate how the digital society has influenced the need for digital inclusion in offender rehabilitation and what digital skills are required by offenders to survive in the digitalised society. The other objectives include examining how digital inclusion in the rehabilitation of offenders can influence successful re-entry and enhanced post-prison life. Also, the review aims to analyse how corrections policies can be aligned to societal changes such as digitalisation. Therefore, achieving these objectives will result in the reformulation of prison policies to align the rehabilitation framework with societal changes.

4.1. Digitalised society and digital offender rehabilitation
Several of the selected literature support that society has become digital and that most of the prison rehabilitation models and policies are still offline and do not cater for the digital realms. Over recent years research in this area agree that corrections rehabilitation models need to include digitalisation so that they prepare offenders for re-entry into a digitally driven society (Cullen, 2001; Gurusami, 2018; McDougall et al., 2017; McDougall & Pearson, 2020; McKay, 2022; Rantanen et al., 2021; Reisdorf & DeCook, 2018; Reisdorf & Jewkes, 2016; Taugerbeck et al., 2019; Toreld et al., 2018; Steene et al., 2017).

A common notion explored in the research is that prisoners have become caught in the “digital divide” and excluded from society. Essentially, the ‘digital divide refers to the inequality some countries, groups and individuals face as a result of barriers to accessing and using ICT (Kerr & Matthew, 2018). Researchers in this topic highlight that, despite societal dependence on digital technologies and the Internet across the developed world, current prisoner rehabilitation, re-entry models, and practices across most correctional systems only target offline realms and issues while disregarding the digital realm (Reisdorf & DeCook, 2018).

The scholars agree that digital exclusion results from corrections rehabilitation models that are not aligned with societal changes and do not prepare offenders for life after release. Given the rapid technological progress and the mediatisation of all areas of life, after years of online abstinence inmates run the risk of losing touch as “digital illiterates” and becoming socially detached (Taugerbeck et al., 2019). In addition to the social exclusion that prisoners already experience physically in a closed prison, this remarkable digital inequality can be felt as a “distinctive pain of modern imprisonment”.

While ICTs facilitate information access and feelings of connection between people who are incarcerated and those who are not these technologies are made more necessary due to states’ practices of relocating people who are incarcerated far from their homes and communities, limiting their movement through administrative segregation (solitary confinement), and through tiered systems of privilege and punishment related to specific types of convictions or compliance with formal and informal institutional regulations while incarcerated (Austin, 2020). There are several ways in which Internet access would be beneficial for inmates during incarceration and how it would contribute to successful resettlement into our fast-paced society upon release (Reisdorf & Jewkes, 2016b).
When an offender is released, they should also be prepared for life outside of prison. As a result, they should have a job, a place to live, a network of friends, and positive relationships with their family and friends. All of these things are crucial for an ongoing good existence in freedom (The Centre for Social Justice, 2021; Wilhelmsen et al., 2017). Many researchers find that existing models of rehabilitation pay insufficient attention to the importance of digital media for successful outcomes (Robinson et al., 2018). Furthermore, disrupting, denying and limiting digital citizenship, which is typical in most of our prisons, limits the scope and reach of e-governance remits (Steene et al., 2017).

Lack of access to new media constitutes a “distinctive pain of modern imprisonment” and creates a new level of disconnection between prison and society (Jewkes & Reisdorf, 2016). This also implies that fundamental social changes associated with the processes of technological development, the use of innovative information and communication technology (ICT) and the way toward digital societies must be considered in constructing and designing modern prison programs (Taugerbeck et al., 2019). Scholars have noted that technologies and the automation of policing criminal justice, and crucial societal services are disproportionately harming marginalized and formerly incarcerated communities (Reisdorf et al., 2021).

4.2. Digital prison rehabilitation and re-entry and post-prison life

Being an active citizen in the digital society requires the use of digital skills (Toreld et al., 2018). The narrative of re-entry is understood by Hlavka et al. (2015) as the product of an individual’s adjourned and compliant identity, encounters in prison, and the ability to manage public stigma upon release. Extramural granting of inmates’ rights is an effort carried out by the correctional system to prepare inmates for a beneficial reintegration into the community. Many prisoners feel unprepared for release, emotionally, practically and financially since insufficient human and social capital makes it difficult to cope with the challenges of everyday life outside prison (Andvig et al., 2020; Andvig et al., 2021). This allows them to play a role as members of a free and responsible community.

Prisoner rehabilitation and re-entry to the community play a large part in plans to make communities safer, with attention being given to encouraging activities that will better prepare offenders for re-entry and improve links between prison and the community before release (Gurusami, 2019; Link & Reece, 2021; McDougall et al., 2017). Also, digital technology in prison increases the digital literacy of released persons, as well as promotes their job-searching skills on re-entry (Jarvelainen & Rantanen, 2020).

The improvement in prison behaviour will impact adjudications, which is a positive predictor of reduced reoffending (McDougall et al., 2017). Scholars on this topic concur that the Internet is indispensable to everyday contemporary life and is requisite for everything from employment to social interactions. Thus, digital literacy and digital citizenship are important dimensions of social reintegration for formerly incarcerated people (Erlt et al., 2019; Gurusami, 2018). Some of the most essential skills for a successful transition to post-release life, such as those needed for finding a job or housing, are increasingly reliant on digital literacy skills. For example, offering digital literacy training as part of the re-entry curriculum has meant that the men who go through the digital literacy program receive hands-on practice with filling out online applications, creating resumes, sending and receiving emails, and conducting effective searches online (Withers et al., 2015).

Because of rapid technological progress and the mediatisation of all areas of life, after years of online abstinence inmates run the risk of losing touch as “digital illiterates” and becoming socially detached. Additionally, exclusion of ICT and digital media can have counterproductive effects on the implementation goal of socialisation: reintegration into society, participation in social life and orientation in important areas of life are made considerably more difficult, as are opportunities in the labour market (Taugerbeck et al., 2019). Re-entry programs that only focus on things like employment readiness or life skills programs do not have a notable effect on recidivism but programs focusing on
personal change, such as personal relationships, digital skills training, and cognitive behavioural programs have a small but beneficial effect on re-entry outcomes (Reisdorf et al., 2021).

Increasing access to the internet, email and computers in prisons can give prisoners the skills and abilities they need to gain employment on release from prison (Kerr & Matthew, 2018). Prison release is a disruptive event that is often unpredictable and unfolding in a context of severe hardship, new technology, crowds, mass transit, and other aspects of everyday life are unfamiliar and only slowly became part of the offenders’ daily routines (Withers et al., 2015). It is vital that the prison rehabilitation system seriously consider the digital inclusion of offender rehabilitation to promote smooth re-entry transition and enhanced post-prison life. The constructs of digital prison rehabilitation are mapped using Table 1 and Figure 2.

5. Discussion
Digital services have been seen as a means of improving the efficiency of social, health care services and other public services, while at the same time increasing accessibility, as well as the quality and safety of care (Jarvelainen & Rantanen, 2020; McKay, 2022). Most studies in this literature review were qualitative-based investigative studies. While these investigations help authenticate the theoretical aspect of digital rehabilitation for offenders and its impact on the two major outcomes: successful re-entry and enhanced post-prison life, they also reveal some critical concerns such as which technologies to introduce to offenders and what digital skills to impart to offenders.

The digitalisation of society is seen as the driver or manipulator of the other variables. The inclusion of digital rehabilitation of offenders is mainly influenced by societal changes and advances in technology. Using the Critical Theory Approach and Good Live Model, the 3 factors: digital inclusion, re-entry and post-prison life can be critically analysed. According to the literature under evaluation, prison administrators must take administrative issues like security and access levels into account while incorporating digital skills into programmes for offenders’ rehabilitation. Researchers further elaborate that offenders need to be equipped with the digital skills they require upon release from prison to be able to survive in the digitalised society.

All the scholars agree that society has become digital to the extent that most of the essential services such as social conduct, job seeking, health and business are now embedded in ICTs (Bedford et al., 2014; Järveläinen & Rantanen, 2020; Pamungkas, 2020; Rantanen et al., 2021; Seo et al., 2021; The Centre for Social Justice, 2021; Toreld et al., 2018; Willems et al., 2018b). Digital skills should be considered an exit prerequisite, especially when preparing the offender for release since offenders will need to use these digital services to find a job and housing, handle payments etc. Scholars agree that a rehabilitation model that does not align with societal changes is close to nothing (Kerr & Matthew, 2018; McDougall & Pearson, 2020; McDougall et al., 2017; Reisdorf et al., 2021). As a theory of punishment, rehabilitation refers to the process of an individual readapting to society or restoring an individual to a former position, rank or state (Reisdorf & DeCook, 2018). Further defined, offender rehabilitation is a procedure that teaches offenders to stop engaging in the behaviours that led to their arrest in the first place and gets them ready for a life in a society free from crime.

From rehabilitative perspective research confirm that carceral institutions are increasingly moving toward models in which all interactions between people who are incarcerated and people outside of the prison who are in communication with them take place through technological interventions and are potentially interrupted if any behaviour is identified as a threat to the institution (Austin, 2020). According to many studies, digitisation promotes incarcerated people’s social skills, self-esteem, rehabilitation and reintegration into society (Jarvelainen & Rantanen, 2020). The researchers agree that most prison systems are still offline yet society has become digital.

Community re-entry programs for people exiting prison lack digital inclusion Kendall et al., 2018). There is a need for Correctional Service to offer digital skills to offenders to avoid a digital
Digitalization can be carried out from the perspective of the rehabilitation and social inclusion of incarcerated people. In this case, the Internet is seen as a tool through which incarcerated people can connect with their relatives, peer groups and normal social and health care services (Jarvelainen & Rantanen, 2020). The scholars do all agree that there is an infringement of human rights in the current corrections models which omit digitalisation in their rehabilitation process.

According to Steene et al. (2017), a digital revolution is upon our penal system and the inevitability of digital transformation is set to shape the way justice is done and experienced. The prison policies need to align with what is happening in society so that offenders can survive after release. If all these factors are taken into consideration, then e-rehabilitation will contribute to promoting inclusion through the development of digital literacy, understood as knowledge, attitude, the individual’s ability

---

**Table 1. Summary of factors collected from the literature in the context of digital rehabilitation of offenders**

| Source                                      | Digital Society | Digital Rehabilitation | Re-Entry | Post-Prison Life |
|---------------------------------------------|-----------------|------------------------|----------|------------------|
| McDougall et al., 2017                     | ✓               | ✓                      | ✓        | ✓                |
| Ariani, 2019                                | ✓               |                        | ✓        |                  |
| Jewkes & Reisdorf, 2016                     | ✓               | ✓                      | ✓        |                  |
| Gurusami, 2018                              | ✓               | ✓                      | ✓        |                  |
| Jarvelainen & Rantanen, 2020                | ✓               | ✓                      | ✓        |                  |
| Austin, 2020                                | ✓               | ✓                      | ✓        |                  |
| Bedford et al., 2014                        | ✓               | ✓                      | ✓        |                  |
| Brosens et al., 2018                        | ✓               |                        | ✓        |                  |
| Champion & Edgar, 2013                      | ✓               | ✓                      | ✓        |                  |
| J. P. S. C. Chan et al., 2019               | ✓               | ✓                      |          |                  |
| McDougall et al., 2017                      | ✓               | ✓                      | ✓        |                  |
| McDougall & Pearson, 2020                   | ✓               | ✓                      | ✓        |                  |
| Reisdorf Bianca & R, 2022                   | ✓               | ✓                      | ✓        |                  |
| Reisdorf & DeCook, 2018                     | ✓               | ✓                      | ✓        |                  |
| Steene et al., 2017                         | ✓               | ✓                      |          |                  |
| Andvig et al., 2020                         | ✓               |                        |          |                  |
| Taugerbeck et al., 2019                     | ✓               | ✓                      | ✓        |                  |
| Wilhelmsson et al., 2017                    | ✓               |                        | ✓        |                  |
| Toreld et al., 2018                         | ✓               | ✓                      | ✓        |                  |
| Willems et al., 2018                        | ✓               |                        | ✓        |                  |
| Robinson et al., 2018                       | ✓               |                        | ✓        |                  |
| Reisdorf et al., 2021                       | ✓               | ✓                      | ✓        |                  |
| Withers et al., 2015                        | ✓               |                        |          |                  |
| Pulido, 2021                                | ✓               |                        |          |                  |
| Ogbonnaya et al., 2019                      | ✓               |                        |          |                  |
| McKay, 2022                                 | ✓               |                        |          |                  |
| Monteira et al., 2015                       | ✓               |                        |          |                  |
| J. P. S. C. Chan et al., 2019               | ✓               |                        |          |                  |
| Reisdorf & Jewkes, 2016b                    | ✓               |                        |          |                  |
to properly use digital tools, and the ability to identify, access, integrate, evaluate, analyze, summarize, create, and communicate using digital resources (Monteiro et al., 2015).

The idea of minimizing the impact and harm of incarceration means that where possible an inmate can maintain and take responsibility for their own lives and not be further damaged by the punishment of a prison sentence (Steene et al., 2017). The scholars on this topic agree that the corrections' policies and practices on rehabilitation determine the re-entry process and that prisoners have no power to determine what will happen to their future, hence corrections authorities should prepare them for that release process. Despite how society is now technology-driven, digital skills and the use of digital media are often absent from rehabilitation theories as well as re-entry and reintegration practices, an issue that impacts negatively on post-prison life.

For successful re-entry and enhanced post-prison life to be achieved and researchers argue that rehabilitation theory and re-entry research need to account for societal changes resulting from the increasing reliance on digital technologies over the previous two decades (Reisdorf & DeCook, 2018). The literature agrees that re-entry should focus on programs that enable the successful return of prisoners to the community by helping them in finding essential services and reconnect to their families. The emphasis is important as re-entry ties directly to rehabilitation (Jonson & Cullen, 2015).
Life inside a prison will ideally mimic life outside while a person is serving a sentence. Normalization so encourages a humanitarian approach to incarceration (Steene et al., 2017). To give more cogent and integrated answers to complex difficulties in the context of offender rehabilitation, key stakeholders should actively influence political priorities, engage in the design of public services, and participate in their implementation (Steene et al., 2017). These advances are, however, less apparent in the setting of correctional organisations.

The ability to utilise ICTs, not just for information research but also for concrete autonomous and responsible virtual action, looks associated with the reduction of reoffending, according to researchers, since this depends on effective resettlement and this, in turn, depends more on ICT use (Pillera & Farley, 2015). When a criminal is released, they should also be ready for life outside of prison, especially with the rise of the digital age and its new norms.

6. Implications for policymakers, practitioners and offenders
There is a significant lack of digital transformation in prison rehabilitation policy and practice, even though digital technologies may and should be made to be realistically integrated into prisoners’ daily lives. Policymakers and practitioners need to aim for a better understanding of digital prison rehabilitation. Thus, policymakers and practitioners in prison rehabilitation should align corrections policies and practice on offender rehabilitation with digital transformation because society has transitioned to a digital age and now relies heavily on technology for basic services. They should make sure that developing digital skills is a key component of prison rehabilitation. The use of digital rehabilitation could facilitate a smooth transition back into society and ensure an improved post-prison quality of life in a technologically advanced society. To maximise the likelihood of successful rehabilitation, prison systems must find a balance between security concerns and penal power on the one hand and enabling inmates to lead regular lives by enhancing their digital fundamental skills on the other. To the best of our knowledge, this paper—which relies on the Good Lives Model and the Critical Theory Approach—is one of the first systematic literature reviews on digital prison rehabilitation. A theoretical framework for Digital prison rehabilitation and re-entry model for enhanced post-prison life in a digitalised society is likely to impact prisoners’ attitudes and behaviour on re-entry. Correlational Services could see what is lacking in their rehabilitation policies and practices and make concerted efforts to push for prison reforms that include digital skills for rehabilitation and promote a techno-correctional approach. Digital prison rehabilitation will also make sure that criminals have good options to access justice, retain family ties, and participate in programmes aimed at improving their post-release situations and rehabilitation. Thus, digital inclusion and digital rehabilitation of offenders need to be considered when reformulating policies for prisoner rehabilitation.

7. Theoretical contributions
Three contributions are made by this review to the field of prison rehabilitation. Firstly, the review offers theoretical insights into how the digitalisation of society has contributed to the need for digital rehabilitation. Secondly, we provide insights on the influence of digital prison rehabilitation on successful re-entry and enhanced post-prison life. Lastly, we provide an understanding of how successful re-entry of offenders guarantees an enhanced post-prison life in a digitalised society.

8. Conclusion
Offenders without digital skills are entirely excluded from participation in what now constitutes “new” social life from digital transformation. Individuals who lack proper digital access and skills, such as offenders, are falling farther and further behind as society becomes more and more reliant on digital technologies (Borsekova et al., 2020). The absence of digital interventions within prison rehabilitation programmes can be considered an infringement of human rights. In principle, prisoners can be considered to have the same right to digital health care and social welfare
services as other citizens during incarceration (Rantanen et al., 2021). Criminologists and psychologists have for some time drawn attention to the disadvantage of prisoners internationally, created by the lack of digital facilities in prisons and hence limited acquisition of skills (McDougall & Pearson, 2020). The centrality of the internet and digital skills and returning citizens’ inability to develop digital skills may have a serious impact on whether they can successfully navigate a technology-dependent world upon re-entry (Reisdorf & DeCook, 2018). One of the key challenges faced by formerly incarcerated individuals is finding employment (Ogbonnaya-Ogburu et al., 2018). Therefore, access to information and communication can mitigate such challenges and be life-sustaining despite the harsh conditions of incarceration (Austin, 2020). Overall, digital technology in prison is believed to increase the digital literacy of released persons, as well as promoting their job-searching skills on re-entry hence the digitalisation of prisons can be justified by the principle of normality and the realisation of human rights (Rantanen et al., 2021).

Effective community re-entry programs are one component of rehabilitation strategies to assist in the successful transition of prison inmates to the community. The review indicates that comprehensive re-entry programs that focus on digital inclusion can be effective in offender rehabilitation. Digitization of prisons is challenging but is beneficial for both administration and offender rehabilitation and re-entry. Finding employment upon release, and generally finding a way back into a society that is moving at a fast-technological pace may lead to challenges not only for those prisoners who served long sentences but also for those who had short incarceration periods. Visitation and maintaining family ties can be crucial to the healing process and lower the risk of recidivism after release. Due to the distance they must travel or the accompanying expenditures, many relatives and friends are unable to visit loved ones who are incarcerated; therefore, augmented and virtual reality could be an important addition to the technology landscape of digital prison rehabilitation to enable people to more readily connect (Muffarah et al., 2021; Rauschnabel et al., 2022).

Digital exclusion adds up to the punishment of confinement that offenders are already experiencing. Digital rehabilitation promotes digital equality and social inclusion (Chan, Yeung, Wong, Tan, & Musa, 2019; Morris & Bans, 2018; Reisdorf & Jewkes, 2016a). Prison policies that do not align with the outside world and societal changes such as the rapid growth of digital usage are incomplete because it does not prepare offenders for successful re-entry. Prisons must discover effective strategies to encourage the digital inclusion of those who are incarcerated because almost every facet of daily life—access to health care, education, social services, job searching, and business—is now based online. Furthermore, almost all studies focus on the general public or specific societal populations, such as the elderly, children, or vulnerable groups; to date, few studies have looked at those who are, in practice, forced to be largely offline due to institutionalized settings, as is the case with prisoners (Reisdorf & Jewkes, 2016b).

Digital technologies have hazards that come with their introduction to correctional facilities, including security issues and the need for trust in those who are incarcerated. The hazards cannot, however, outweigh the advantages, and the risks can be reduced by putting in place mitigating measures. The digital rehabilitation model/frameworks if adopted, promotes social inclusion, rehabilitation alignment, successful re-entry, and enhanced post-prison life. Particularly digitization, in a way, is used to enhance the process of prison life and aid the smooth integration of incarcerated people into a digitized society during their re-entry.

In prisons and other facilities for crime prevention, the idea and practice of rehabilitation are always changing and evolving. While the government and the general public have a stake in ensuring that inmates are no more of a societal burden when they are released from jail than when they entered it, if rehabilitation initiatives are to have any meaningful impact, they must embrace digital transformation. ICT can and should be designed to be convincingly integrated into prisoners’ daily life, but there is considerable ambiguity in the scientific community about how to do this. The research concludes that limited access to appropriate rehabilitation services (digital
skills) which are aligned to the societal changes and advancements (digitalisation) exacerbates the importance of offender re-entry. As Correlational Services are shifting from the punitive stance to a corrective/rehabilitative mantra technology can be used as a key enabler in the rehabilitation of offenders. By combining current digital technologies with augmented and virtual reality researchers in digital prison rehabilitation can create models that foster a new reality of prison rehabilitation.

Funding
The authors received no direct funding for this research.

Author details
Eugenia Zivanai1
Gilbert Mahlangu2
E-mail: mahlago97@gmail.com
1 MSc Information System Management Graduate Student Information and Marketing Sciences, Midlands State University, Gweru, Zimbabwe.
2 Information and Marketing Sciences, Midlands State University, Gweru, Zimbabwe.

Disclosure statement
There are no declared competing interests, according to the authors.

Citation information
Cite this article as: Digital prison rehabilitation and successful re-entry into a digital society: A systematic literature review on the new reality on prison rehabilitation, Eugenia Zivanai & Gilbert Mahlangu, Cogent Social Sciences (2022), 8: 2116809.

References
Andvig, E., Koffeld-Homidane, S., Ausland, L. H., & Karlsson, B. (2021). Inmates’ perceptions and experiences of how they were prepared for release from a Norwegian open prison. Nordic Journal of Criminology, 22(2), 203–220. https://doi.org/10.1080/23311886.2022.2116809.
Ariani, N. V. (2019). Granting Inmates Information Technology-Based Rights. In Advances in social science (pp. 978-94-6239-385-1. https://doi.org/10.2991/assehr.k.210531.032.
Austin, J. (2020). Feminist Media Studies 20(8), 1293–1297. https://doi.org/10.16807.jfms.20.178693.
Bedford, T., Deerden, R., & Dorman, M. (2014). Offender rehabilitation and information literacy: A case for providing appropriate prisoner access to contemporary ICT. May, 1–22. https://www.researchgate.net/publication/228662181%20Offender
Blanco, R. & Jlewes, Y. (2016). Blocked sites: Cases of Internet use in three British prisons. Information, Communication & Society, 19(6), 771–786. https://doi.org/10.1080/1369118X.2016.1153124.
Borsekova, K., Klatik, J., Korény, S., Kríštofík, P., Mihók, P., & Orvisky, M. (2020). Sustainable policy measures based on the implementation of digital technologies in corrections: Exploratory study from Slovakia and beyond. Sustainability (Switzerland), 12(20), 1–18. https://doi.org/10.3390/su12208643.
Borsekova, K., Klatik, J., Korény, S., Kríštofík, P., Mihók, P., & Orvisky, M. (2020). Sustainable policy measures based on the implementation of digital technologies in corrections: Exploratory study from Slovakia and beyond. Sustainability, 12(20), 8643. https://doi.org/10.3390/su12208643.
Brosens, D., Croux, F., & De Donder, L. (2018). Barriers to prisoner participation in educational courses: Insights from a remand prison in Belgium. International Review of Education, 65(5), 735–754. 0020-8566 https://doi.org/10.1007/s11159-018-9727-9.
The Centre for Social Justice. (2021). Digital technology in prisons: Unlocking relationships, learning and skills in UK prisons. January https://www.centreforsocialjustice.org.uk/wp-content/uploads/2021/01/CSI18671-Digital-In-Prisons-210604.pdf.
Champion, N., & Edgar, K. (2013). Through the gateway: How computers can transform rehabilitation. Prison Reform Trust. https://prisonreformtrust.org.uk/wp-content/uploads/2013/11/through-the-gateway.pdf.
Chan, J. P. S., Yeung, J. H. Y., Wong, N. C. Q., Tan, R. C. H., & Muso, N. (2019). Utilising digital media as enabling technologies for effective correctional rehabilitation. Safer Communities, 18(1), 30–40. https://doi.org/10.1108/5C-05-2018-0016.
Cullen, R. (2001). Addressing the digital divide Online Information Review; Bradford. 25(5), 311–320. https://doi.org/10.1108/14684520110140157.
Ertl, T., Tauber, S., & Wulf, V. (2019). The social mile - How (Psychosocial) ICT can help to promote resocialization and to overcome prison. Proceedings of the ACM on human-computer interaction, 3(GROUP). https://doi.org/10.1145/3370270.
Gurusami, S. (2018). The carceral web we weave: Carceral citizens’ experiences of digital punishment and solidarity (Punishment & Society, 21(4), 435–453. https://doi.org/10.1177/1462474518790237.
Gurusami, S. (2019). The carceral web we weave: Carceral citizens’ experiences of digital punishment and solidarity. Punishment and Society, 21(4), 435–453. https://doi.org/10.1177/1462474518790237.
Hlavka, H. R., Wheelock, D., Jones, R. S., Hlavka, H., Wheelock, D., & Jones, R. (2015). Exoffender accounts of successful reentry from prison exoffender accounts of successful reentry from prison. Journal of Offender Rehabilitation, 54(6), 406–428. https://doi.org/10.1080/10509674.2015.1057630.
Järveläinen, E., & Rantanen, T. (2020). Incarcerated people’s challenges for digital inclusion in Finnish prisons. Nordic Journal Of Criminology, 22(2), 240–259. https://doi.org/10.1080/25798983.2020.1819092.
Järveläinen, E., & Rantanen, T. (2020). Incarcerated people’s challenges for digital inclusion in Finnish prisons. Nordic Journal Of Criminology, 22(2), 240–259. https://doi.org/10.1080/25798983.2020.1819092.
Järveläinen, E., & Rantanen, T. (2020). Incarcerated people’s challenges for digital inclusion in Finnish prisons. Nordic Journal Of Criminology, 22(2), 240–259. https://doi.org/10.1080/25798983.2020.1819092.
Jewkes, Y., & Reidish, B. C. (2016). A brave new world: The problems and opportunities presented by new media technologies in prisons. Criminology & Criminal justice, 16(5), Criminal Justic, 534–551. https://doi.org/10.1177/1748895816654953.
Janson, C. L., & Cullen, F. T. (2013). Prisoner Reentry Programs. Crime and Justice, 44(1), 517–575. https://doi.org/10.1086/661554.
Kaua, A., & Sternsstedt, F. (2020). Doing time, the smart way? Temporalities of the smart prison. New Media and Society, 22(9), 1580–1599. https://doi.org/10.1177/1461444820914865.
Taugerbeck, S., Ahmadi, M., Schorch, M., Unbehaun, D., Aal, K., & Wulf, V. (2019). Digital participation in prison – a public discourse analysis of the use of ICT by inmate. PACM on Human-Computer Interaction, 3(233), 1–26. https://doi.org/10.1145/3361116.

Toreld, E. M., Haugli, K. O., & Svolastog, A. L. Knowledge landscapes(2018). Maintaining normality when serving a prison sentence in the digital society. Croat Medical Journal, 59(6), 335–339.

Verbaan, S., Aldington, C., McNaney, R., & Wallace, P. J. (2018). Potentials of HEI for prisons and incarcerated individuals. Conference on human factors in computing systems - proceedings, 2018-April, 2016–2019. https://doi.org/10.1145/3170427.3185367

Ward, T., & Brown, M. (2006 September 2014). The good lives model and conceptual issues in offender rehabilitation. Psychology, Crime & Law 10(3), 37–41. https://doi.org/10.1080/10683160410001662744

Wilhelmsen, F., Jackson, G., & Makne, O. (2017). How can ICT make the offender better prepared for release? EuroPris ICT Expert Group.

Willems, J., Farley, H., & Garner, J. (2018b). Digital equity in Australian higher education: How prisoners are missing out. Higher Education Research and Development Society of Australasia, 41, 247–256. https://www.herdsa.org.au/publications/conference-proceedings/research-and-development-higher-education-re-valuing-higher-22.

Withers, E., Jacobs, G., Costek, J., Pizzolato, D., & Pendell, K. D. (2015). Corrections and reentry: Digital literacy acquisition case study. Corrections and Reentry Digital Literacy Acquisition Case Study. http://archives.pdx.edu/ds/psu/16519.