REPORT

# Advancing Technological Equity for Incarcerated College Students

## Examining the Opportunities and Risks

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# Table of Contents

# Introduction

Higher education programs that teach in prisons take on a near impossible task: to provide their students with a high-quality education, equal to anything beyond the prison walls, while working under strict constraints. Incarcerated students rarely have access to learning resources typically taken for granted on the outside—computers, books, and internet access are all heavily restricted by various state Departments of Corrections (DOC)—and instructors must work with and around DOC security protocols while planning and teaching their classes.[1] While innovative pedagogies can overcome these barriers, the lack of information resources and access to new technologies inhibits incarcerated learners' ability to cultivate critical information and digital literacies, skills that will be vital for their lives post-release.

There is now growing support for prison reform and prison education programming. In 2016, the Obama administration undertook a pilot, called Second Chance Pell, which aimed to test the restoration of Pell funding for incarcerated students who had been deprived of eligibility by the 1994 Omnibus Crime Bill. Full restoration of Pell funding for the incarcerated population is currently under consideration, and while this represents a tremendous opportunity, there is an equally pressing need to understand how to best serve this particular student population.[2] As access to information and technology resources is critical to supporting student success, Ithaka S+R has undertaken a qualitative research project to better understand the current landscape and potential opportunities of technology and information resources in postsecondary prison education. The project was designed with two principal phases, the first of which is now complete. In the first phase we interviewed those who could provide a high level view of the state of information and technology resources in higher education in prison programs. In the second phase, we will complement this high-level perspective with those of people working on the ground to implement higher education programming. We offer this interim report to contextualize the issues surrounding information and technology in prison higher education and present our initial findings. First, we outline the main categories of technology currently used in correctional facilities, along with the

[1] As will be discussed extensively in the report, the state Departments of Corrections are very different, idiosyncratic entities—indeed, some are not even called the "Department of Corrections" (e.g. California's Department of Corrections and Rehabilitation (CDCR)). For simplicity, we refer to the various departments as Departments of Correction or DOCs, though recognizing the often-significant differences between them.

[2] The Vera Institute of Justice estimates that 64 percent of the incarcerated population are academically eligible for postsecondary education, representing about 463,000 potential students (Patrick Oakford, et al., "Investing in Futures: Economic and Fiscal Benefits of Postsecondary Education in Prison," Vera Institute of Justice, January 2019, p. 1, https://www.vera.org/publications/investing-in-futures-education-in-prison), though others may find this number optimistic.

major providers, and how these platforms are used to support higher education. Whereas state DOC policies often mean that programs must seek media review of course texts on a case-by-case basis, we then look at how some providers have been able to load servers with large amounts of open access content approved by state DOCs. We also discuss what this content looks like and how content and technology platforms intersect. As content and technology providers operate across several different business models, we review how these models influence their offerings. Finally, as a small handful of states have been able to expand postsecondary education programming throughout their systems, we look at two examples of how this was made possible.

We structure these findings around three main themes that cut across all of our findings below:

- **Theme 1:** This field is characterized by heterogeneity. State prisons contain the bulk of the incarcerated population, and each state DOC sets its own rules and implements educational programming in its own way. While some programs may share common practices and challenges, it is important to keep this variance in mind.

- **Theme 2:** There is growing tension between online/distance learning and in-person models of instruction.[3] Distance instruction is a fast growing trend, largely supported by increasing DOC comfort with technology and the smaller burden it puts on DOC staff. However, in-person programs fear that this trend could lead to DOCs limiting or outright banning in-person instruction, even if in-person programming is of greater benefit to students. Quality is an inextricable element of this issue, and, while a growing body of work describes what quality higher education in prison *should* look like, there is little research that measures the quality or effectiveness of various models or offerings.[4]

- **Theme 3:** There is growing momentum behind expanding access to higher education in prison and the field is changing quickly. Bipartisan support for offering educational opportunities to people in prison are very different from what they were even a few years ago, and this sudden change has led many

[3] Because most incarcerated people are unable to access the internet, truly "online" education is rarely an option. Instead, programs may load their course content onto a server or device that students then sync to download and upload assignments. This model will be explored in more detail in the final report.

[4] Tanya Erzen, Mary R. Gould, and Jody Lewen, "Equity and Excellence in Practice: A Guide for Higher Education in Prison," *Prison University Project & The Alliance for Higher Education in Prison*, 2019, http://www.higheredinprison.org/reports.html.

states to experiment with different kinds of offerings. As attitudes continue to change, so will the opportunities and challenges.

## Background

Incarcerated college students need access to information resources, including textbooks, course books, and academic articles. Gaining access to such resources, however, can be difficult, as DOC security protocols often prohibit access to certain kinds of information or require a lengthy approval process. The increasing presence of technology within US prisons may provide opportunities to improve access to information resources, but little research has been conducted on how the intersection of technology and information in prisons can or should support higher education.

### *Information Access*

The information ecosystem within prisons is tightly constrained. Departments of Correction must prioritize the security of the facility and so limit platforms that could allow incarcerated individuals to access information that could threaten the safety of staff or other incarcerated people. Principal concerns include information that could be used to make weapons or prohibited substances, information that could aid in escape (e.g. maps), information that has the (perceived) potential to inflame tensions within the facility (often materials on race and criminal justice), or systems that allow for unmonitored communications, either within the facility or to the outside world. It should come as no surprise, therefore, that incarcerated people, with few exceptions, cannot access the internet, which can of course facilitate all of these things.

While the inability to access the internet presents informational hurdles to all incarcerated people, it presents a special set of challenges to higher education in prison programs and their students. In the absence of the internet and the access to digital resources it provides, physical collections are critical. While most prisons maintain a library, these are typically designed as law libraries, due to federal mandates, and/or to serve the general reading interests of the prison population. Prison education programs, therefore, may try to build collections of their own for their students, if they can secure the space. Yet, even the best provisioned of these collections cannot reach anything approaching the academic collection of a college or university, nor provide access to digital repositories of scholarship and other licensed media. Therefore, incarcerated students, just like non-incarcerated students, need consistent and unencumbered access to academic library resources to support their education.

Despite this need, academic libraries are rarely committed partners with higher education in prison programs (at least at the institution level). As Rebecca Sorgert described, academic libraries are typically "forgotten and elusive partners" in prison higher education, and the library research on serving this population is likewise thin.[5] Owing to this dearth of literature, librarians who do partner with prison higher education programs face a steep learning curve as they familiarize themselves with a very different set of information protocols and technologies.

It is not, of course, only librarians who suffer from the lack of research on this topic. Higher education in prison programs and DOCs themselves may not be aware of the variety of resources available, and how they might best be incorporated into prison higher education programming to meet the needs of students. While venues like the Corrections Education Association conference or the National Conference on Higher Education in Prison present important opportunities to share information, the idiosyncratic nature of the state Departments of Correction can also encourage siloing. This, combined with the lack of published information on the state of information resources in prisons, has a negative effect on students' educational experiences and creates inequities.

### *Technology*

Beyond the prison walls, access to information increasingly relies on a variety of technologies and platforms. The role of technology in prison education has received slightly more coverage than information access per se, in particular from the Department of Education and the Integrated Justice Information Systems Institute (IJIS Institute). Yet high-quality research on the effects of technology on education in prison generally is also quite rare.[6]

The US Department of Education (DoE) released a study of educational technology in prisons in 2015. The report highlighted educational technology's "considerable promise to enhance and expand correctional education within constrained resources," pointing out that advanced technologies had already been incorporated into the operations of

[5] Rebecca Sorgert, "Forgotten and Elusive Partners: Academic Libraries and Higher Education in Prison," *St. Louis University Public Law Review* 33.2 (2014): 429-41.

[6] Cathryn Chappell and Margaret Shippen, "Use of Technology in Correctional Education," *Journal of Correctional Education* 64.2 (2013): 22-40.

prison facilities, just not education.[7] The report focused on several technological pathways along which correctional education could grow. In particular, the DoE focused on the creation of controlled networks, either Local Area Networks (LANs) or Wide Area Networks (WANs), noting that access to the open internet was rare in the corrections context.[8] The report also discussed a comparatively new technology considered to hold substantial possibilities: tablets. Though recognizing that major tablet providers did not come from an education background, such as Securus/JPay, which has a background in telecommunications and commissary provision, the report recommended their adoption as mobile learning solutions.

As education is slowly becoming a greater priority for states, DOC information technology (IT) departments must increasingly vet educational technology and support education programming. It is important to note, however, that most DOC IT staff are not specialists in educational technology (though some DOCs may have IT staff dedicated to educational programming who are), meaning that their support may be limited to screening for security issues and determining if the technology advances larger DOC goals not directly related to education. For example, as a white paper published by the IJIS Institute in 2017 noted, educational technology would play a significant role in supporting trends in "evidence-based population management."[9] The IJIS Institute paper, which sought to identify future trends in technology in prisons from 2017 to 2020, also emphasized revenue opportunities, "Technology…will provide new options for charging and collecting as custodial facilities further move to a 'cashless' environment for inmate funds."[10] The paper further notes how e-messaging has become widely established in prisons as a revenue generator, and that this model could be used for other technologies.

It is critical to note, however, that the fees incarcerated people and their families pay for services like e-messaging are often inflated well beyond their market price in the free world.[11] As technological affordances make their way into higher education in prisons, it

[7] Michelle Tolbert, Jordan Hudson, and Heather Claussen Erwin, "Educational Technology in Corrections, 2015," US Department of Education, 2015: 4, https://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/policybriefedtech.pdf.

[8] Ibid. p. 4-7.

[9] Michael Anderson et al., "Corrections Tech 2020: Technological Trends in Custodial & Community Corrections," IJIS Institute: Corrections Advisory Committee, 2017: 6, https://www.justnet.org/pdf/Corrections_Tech_2020_FINAL_20170331.pdf.

[10] Ibid p. 15.

[11] Stephen Raher, "The Company Store and the Literally Captive Market: Consumer Law in Prisons and Jails," *Hastings Race and Poverty Law Journal*, Volume 17.1 (2020), https://repository.uchastings.edu/cgi/viewcontent.cgi?article=1143&context=hastings_race_poverty_law_journal.

will be critical for DOCs and programs to ensure that predatory fees are not levied for access to higher education programming. Considering that both the DoE and IJIS Institute specifically note a resource shortfall around education technology in prisons, we are entering a critical period when technologies and their fee structures will be decided upon in the field of higher education.

In addition to revenue generation, educational technology is also seen as a cost saver; "educational technology has enormous potential to reduce costs and workload in the delivery of programming to offenders."[12] As Cathryn Chappell and Margaret Shippen note, creating efficiencies is undeniably a benefit of technology.[13] However, such efficiency also gives cause for concern, as the ease of digital or online learning could force out more labor-intensive in-person programs, even if the latter are of higher quality, of more benefit to students, or preferred by students. Indeed, e-messaging and video visitation have already, in some jurisdictions, had this effect on in-person visitations, as digital forms of interaction eliminate the need for the security screening and monitoring of visitors entering a facility.[14] While video visitation can create additional opportunities for incarcerated people to stay in contact with family, and save the latter from making long trips to often-remote facilities, the significance and benefit of real human contact cannot be underestimated.

As the 2015 DoE report stressed, a "sea change" is occurring in departments of corrections when it comes to technology, and five years out from that declaration, we might now see whether the technological tide has come in, or, dissolved into sea foam. In particular, it is an opportune time to survey the field and establish whether technology-enabled trends in other areas of the prison system (e.g. mail delivery and telecommunications) have begun to take hold in higher education in prison as well.

Recent events have thrown these issues into high relief. As the COVID-19 pandemic has shuttered college and university campuses across the country, instruction has rapidly moved online. As prisons and programs have halted programming to minimize the chance of spreading the virus within the prison system, higher education in prison programs have had to figure out how to switch to a remote model with few technological supports. How programs have been able to respond to this sudden change is tied directly to the information access and delivery modalities in place at the facilities they serve.

[12] Anderson et al., "Corrections Tech," 17.

[13] Chappell and Shippen, "Forgotten."

[14] Steve Horn and Iris Wagner, "Washington State: Jail Phone Rates Increase as Video Replaces In-Person Visits," Prison Phone Justice, October 12, 2018, https://www.prisonphonejustice.org/news/2018/oct/12/washington-state-jail-phone-rates-increase-video-replaces-person-visits/.

While we will look more closely at specific program models in the final report, here we outline the major technology providers that support higher education programming, as well as the use of these offerings to facilitate coursework and deliver educational content to students.

## Our Approach

The project was designed with two main phases. The initial phase consisted of capturing the perspectives of DOC leadership (principally the state education directors), leaders in the prison higher education space, and third-party technology providers. We sought education directors that would reflect the variety of higher education models, information/media policies, and technology implementations. We focused on education directors specifically because of their systemic view of postsecondary education in their state, as well as their role as decision maker and advocate for education within the DOC itself. We also interviewed leaders within the field of higher education in prison for their similarly synoptic view. Finally, a number of third-party providers are active in the prison system, and we sought to capture the variation of their technology and information offerings.

We are extremely grateful to those who were willing to give of their time for interviews and thank them here:

- Sean Addie, Director of Correctional Education, US Department of Education
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- Whitney Clarke, COEP Coordinator/Systems Tech, WiderNet Project
- Heather Corbett, Director of Career, Technical, and Higher Education, Georgia Department of Corrections
- Melinda Dennis, Director of Education Programs, Georgia Department of Corrections
- David Disko, Education Consultant, Edmentum
- Arti Finn, Chief Business Development Officer and Co-Founder, American Prison Data Systems (APDS)
- Heather Gay, Education Manager, Michigan Department of Corrections
- Mary Gould, Director, the Alliance for Higher Education in Prion
- Brian Hill, CEO and Founder, Edovo
- Marcie Koetke, Director of Education, Minnesota Department of Corrections
- Frank Martin, US Justice Director, World Possible
- Mott Middleton, Chief Revenue Officer, American Prison Data Systems (APDS)

- Cliff Missen, Director, WiderNet Project
- Clay Mixon, ATLO Software
- John Nally, Director of Education, Indiana Department of Corrections
- Matt Reilly, Supervisor, Product Management, JPay
- Jeremy Schwarz, Executive Director, World Possible
- Rebecca Silbert, Director, Corrections to College
- Shannon Swain, Superintendent, Office of Correctional Education, California Department of Corrections and Rehabilitation
- Loretta Taylor, Education Services Administrator, Washington Department of Corrections
- David Webb, Director of Outreach Programs, Ashland University

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The second phase, currently underway, focuses on gathering the perspectives of those "on the ground," and will complement and contextualize the findings from the first phase or research (see further details in Project Next Steps).

## Findings

Because higher education is not the priority for most prison systems, the technology and infrastructure used to support it is generally repurposed from other educational imperatives (though programs can fundraise independently and secure, with the Department of Correction's (DOC) approval, their own resources).[15] As access to information is increasingly intertwined with technology, the information resources available to incarcerated college students is thus also quite limited. Providers of technology will often add education resources to their offerings, but these tend to be freely available resources of uncertain quality or utility to keep costs low. However, as these technology resources have entered the prison educational space, Departments of Correction (DOC) have looked to them as an easier option than traditional in-person instruction. This tension between online and in-person learning will be a major theme of the discussion surrounding the role of technology in prison education, and the difficulty of providing access to information separate from a device. This is not to say that the use

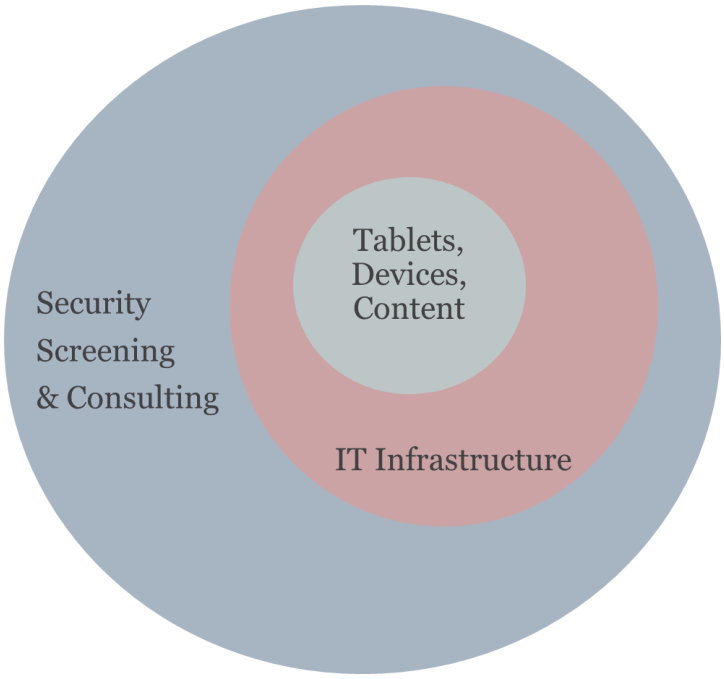
[15] A related issue is the lack of dedicated space for educational programming. Prisons were not built with education in mind, and so finding appropriate spaces for classes, libraries, computer labs, etc. is often as pressing an issue as securing access to information and technology resources themselves.

of technology is by any means antithetical to quality instruction. Important developments such as internet pilots and whitelisting educational websites are critical instructional supports that are being made possible by the growing presence of technology on the inside.

### *Technologies*

Across the technologies provided in support of prison higher education, DOC are concerned about security, looking for ease of use, but also beginning to experiment with internet access. Security is an overriding concern for all technology that enters the prison space, both with respect to the physical hardware itself and what the technology can be used to access or accomplish. However, each state has a different threshold for acceptable risk, and so the technology implemented in different states can have quite different functionalities. DOCs, and hence providers, also prefer technology that eases or streamlines their work and workflow. Providers are thus incentivized to offer solutions that prioritize the DOCs' ease of use and implementation. Finally, there is a growing trend in the experimentation of limited Wi-Fi or internet access offerings. This usually takes the form of whitelisting websites vetted by DOCs and thoroughly checking links to make sure there is no way to get to the open internet from them. Because of this, especially porous websites (e.g. library catalogs) present a major challenge to whitelisting.

Figure 1. Technology Providers: Three Main Service Areas



The devices used in prison higher education require IT infrastructure to support them and, increasingly, continuous security screening (Figure 1). Support may be provided by the third party or the DOC itself. Companies are also beginning to offer robust security screening and monitoring services, for both devices and networks.

### *Tablets*

The main providers of tablets used in prisons are Securus/JPay, GTL, Edovo, and American Prison Data Systems (APDS).[16] Services made available through tablets make up the most significant expansion of technological offerings in prisons and can be implemented in several different ways within the prison environment. Perhaps the most common arrangement is the kiosk set-up, wherein tablets can be checked out to eligible individuals and then synced by connecting them to a kiosk. Many DOCs prefer this set-up as, according to the DOC representatives and third-party providers we spoke to, any networked functionality (i.e. connected to a computer network, whether this includes internet access or not) is considered to be a significant security risk. Providers have, however, been using their influence to change DOC perceptions on network functionality. The creation of local area networks (LANs) without access to the open internet are becoming more common inside facilities and have the benefit of obviating the clunkiness and inconsistency of access inherent in kiosk syncing (this also removes the risk of damage and theft of the kiosks and connectors).[17] The providers who offer tablets also provide technology and infrastructural support to DOC IT insofar as troubleshooting and maintaining the tablets, kiosks, and networks, as well as extensive testing of the tablets themselves to ensure they are durable and secure. Because these tablets are designed for the prison environment, they also frequently come with features that make it easy for DOCs to exert control over their use. For example, specific content or features can be remotely locked or unlocked by corrections staff to reward or penalize behavior, and communications mediated through the tablet may be cached and monitored by the DOC. These systems of control and monitoring are important features for DOCs and are features that are not commonly available through systems not designed for the prison environment.

Used in an educational context, tablets–like all technological equipment–can function in several ways. In some cases, tablets are the sole portal through which educational content is provided (for example, an "online" college program), and in these cases may

[16] The providers we discuss are not meant to be a comprehensive list of all the providers operating in American prisons, but covers the main categories of technology currently on offer.

[17] Louisiana, for example, has begun to adopt Wi-Fi-enabled tablets from JPay, interview with Andrea Butross August 28, 2019.

come with an attachable keyboard for assignment work (though it is unclear how widespread or common these keyboards are).

Figure 2: The Edovo tablet in use

*Photo courtesy of Edovo*

A benefit of the tablet model is that, in theory, tablets are personal devices and can be taken and used anywhere at any time; students can thus work late at night when it is quiet, and corrections staff do not need to move people around their facility as frequently. However, a specific and frequently noted weakness of them is their small size (for example, JPay's JP5 tablet has a seven-inch screen), which makes serious academic work difficult. Some providers, like APDS, have designed a tablet with a larger screen and is ADA compliant specifically to address the problem of accessibility and functionality. However, in some cases, even when using a soft keyboard for composition, working exclusively on a tablet can be frustrating for students. Frustrations may or may not stem from the device itself, as there is an equal need to provide adequate instruction on how to use this and other technology, especially for students serving long sentences and therefore less familiar with recent technological developments. For example, Andrea Buttross, Director of Education, Louisiana Department of Corrections, noted that some students have even dropped out of courses from frustration with the technology, as have students in California.[18]

[18] Interview with Andrea Butross, August 28, 2019; Rebecca Silbert, personal communication, April 14, 2020.

Another major hurdle for tablets' effective use to support the delivery of educational content inside prisons, however, is the ease, or lack thereof, with which instructors can upload their own content, and the space available for external content. For example, in 2014, the California Department of Corrections and Rehabilitation (CDCR) piloted the use of Innertainment Delivery Systems' (IDS) e-readers. Though the goal was to use these devices to provide access to Open Educational Resources (OER) textbooks for college students, this proved to be virtually unworkable. Content could only be added during a short window, faculty received little information about what resources could be added on the devices, and the materials available through the vendor were not what faculty wanted.[19] While CDCR worked to address these issues, other frustrations with usability (e.g. page-loading speed) meant this resource was of limited utility. The ease with which instructors can manage content is thus as important a consideration as their ease of use and benefit for students. Owing to these limitations, some state DOCs' education directors have begun to consider other options.

### *Laptops*

Considering the limitations of tablets as well as the desirability of their mobility, laptops may seem the obvious solution. State DOCs are, however, very resistant to their use inside prisons. As our conversations with several DOC education directors have made clear, regular laptops have too many security flaws to be used in the prison context. For example, because laptops have various connection ports (e.g. usb, sd, and vga ports), there is greater opportunity for them to be hacked or disassembled, which could allow contraband to be concealed within the physical frame of the laptop itself.

Figure 3: The Securebook

*Photo courtesy of Justice Tech Solutions*

[19] Interview with Shannon Swain and Rebecca Silbert, November 19, 2019.

To overcome these concerns and offer students a more robust option for accessing education, Justice Tech Solutions (related to, but a distinct entity from, World Possible) designed the Securebook laptop. This laptop is made of clear plastic (a design feature borrowed from some of the tablets) and has no connectivity features aside from its purpose-built dock connection (see Figure 3). The Securebook is synced through a dock, kept in a classroom or administration office, or outside of the prison entirely, depending on what the facility allows. The laptop is also operating=system agnostic, so DOCs are able to choose to have their preferred operating system loaded onto the laptop by Justice Tech Solutions. The Securebook's larger size and storage capacity are perhaps its most significant benefits for educational programming, and as will be discussed in more detail below, this greater size and more robust functionality is an increasingly attractive feature to the educators and DOC education directors we interviewed.

### *Chromebooks*

While laptops are generally considered to be too insecure, numerous jurisdictions have adopted Chromebooks to facilitate their education programs. Chromebooks have the advantages of a laptop in size and ease of use, and they have an operating system that helps limit the possibility of misuse. Chromebooks utilize a Linux-based operating system designed by Google. The chief interface is through Google's Chrome browser, and therefore requires access to the internet. As Chromebooks were essentially designed to work directly from the internet, the general absence of internet connectivity in prisons means that most of the Chromebook's native features are inoperable. DOCs are then able to use them as an essentially blank platform. However, in the absence of the internet, it may also be more difficult to use basic functions like word processors, and as most instructors are used to teaching in Microsoft Word, some may have difficulty adapting their instruction to a different platform. Nonetheless, Chromebooks are an increasingly attractive option in the jurisdictions we looked at, and unlike tablets, are generally used exclusively for education. A further advantage of the Chromebook is that these devices are not specifically made for prisons, and so allow incarcerated students to use a device they might use again post-release.

While students may be able to use their own personal tablets (either paid for by the program, by their family, or donated by the provider) in their living quarters and common areas, they generally share Chromebooks, and so these must be checked out and in. In Georgia, where students have access to both, those enrolled in Ashland University's 'online' program use Chromebooks as the principal educational device during class or study hours and tablets in their living quarters.[20] While such an

[20] Interview with Heather Corbett, September 19, 2019.

arrangement may capitalize on the strengths of both platforms, working between them is not seamless. The tablets may include some form of proprietary Learning Management System (LMS), but Chromebooks do not (a significant problem when other LMS providers cannot be accessed via the internet). This was an issue for students in Georgia when they moved from the JPay tablet to Chromebooks and could no longer access their accounts on JPay's Lantern LMS.[21] Resistance from JPay to make Lantern accessible off of their tablet forced the state DOC to move to a limited form of Blackboard. Moving between platforms may therefore be a significant challenge for students, especially if providers consider their educational content proprietary and a market differentiator. Nonetheless, the more robust capabilities of the Chromebook are increasingly seen by several jurisdictions as a stronger option for educational programming, even if it means working to have additional services, like Blackboard, approved.[22]

### *Computer Labs*

Computer labs offer crucial advantages in that they can facilitate group interaction and access to a real computer (though of course with security features). Such security features may include a lock box that prevents students from being able to insert a USB or cable into the hard drive, or the entire computer may be encased in a steel box that prevents it from being moved. The key issue with the lab format is the limited number of students who can be accommodated at any single time and the necessity of moving incarcerated persons within the facility, which is perceived to be a burden by some DOC staff. A further difficulty with many labs currently installed in prison facilities is that they are often severely outdated and their principal purpose is to support GED or ABE education programs. Because these programs typically take primacy over higher education in prisons, it can be difficult for other education programs to schedule use of these resources. Nonetheless, the lab format can offer incarcerated students an experience that approximates classes outside of the prison, as they are afforded access to both synchronous and technology-enabled instruction, as well as an instructor who can teach basic and technical computer skills. The ability to create a college-like atmosphere may then be one of the lab format's greatest strengths.

[21] Ibid.

[22] In addition to Georgia, Washington State has also piloted a laptop program that utilizes an altered version of Blackboard (Interview with Loretta Taylor, April 22, 2020).

### *Infrastructure and Security Screening*

In addition to the hardware that incarcerated persons are permitted by DOCs to use, IT infrastructure must also be installed in facilities for them to run. Such infrastructure can take the form of a server or syncing kiosk, or, in the case of Indiana where state law prohibits incarcerated people's use of the state internet "backbone," a line for the internet separate from that used by state DOCs.[23] Providing this infrastructural support is critical, as DOC IT staff may lack the capacity to install or support it independently, or may be unfamiliar with specific educational technology systems. Furthermore, because DOCs generally lack the capacity to monitor these devices around the clock, technology providers also offer monitoring services, and may constitute a key selling point for Corrections staff reluctant to introduce technology into their facility. For these reasons, providers like JPay, Edovo, ATLO, and APDS all offer some form of infrastructural and security support, and this support can be just as critical as the actual offering itself. Indeed, the quality of this support can determine whether a trusting, and therefore lasting, relationship is established with the DOC.

Beyond screening devices, managing access to the internet will undoubtedly be a major area of service in the future. Access to the open internet is a cause of deep concern for state DOCs, and so most internet access will likely take the form of whitelisting DOC approved websites. While the technical difficulties involved in managing this kind of restricted internet access should not be overlooked, it is, perhaps, more important to note that resistance to such whitelisting is more a question of culture than technology. Such internet filters already exist broadly and effectively outside of prisons, and while the prison environment may necessitate unique solutions and security protocols, the bigger challenge will likely be convincing DOC personnel that internet access can be safe, secure, and indeed, both desirable and necessary.

### *Sample Program Technology Models*

The above technologies can facilitate a number of different program models and it will be helpful to describe how they may be used in practice. While this by no means captures the nuance and variety in how these models intersect on the ground, it captures some of the most common ways these systems are deployed. Each of these models is, to an extent, platform agnostic.

[23] Interview with John Nally, August 29, 2019.

Model 1: Individualized, no higher education program affiliation

This model makes maximal use of the educational content offered from third-party providers such as JPay, APDS, Edovo, World Possible, and Wider Net. In this instance students access content loaded on their device or downloadable from a kiosk or server. Materials may include archived webpages (e.g. Wikipedia) or open access material, for example from Khan Academy. In some instances, students may earn some form of credit or certification through module completion and examination. For example, the Saylor Academy is one organization that provides credit that is transferable to numerous partner universities.[24] Another model is Edmentum's platform, which is strictly online, and is generally guided by a DOC administrator, but does not offer any higher education programming (at least currently). While Edmentum offers flexibility and can be closely tailored to the individual student, this model is self-guided and individualized, and students are limited to the materials loaded on the tablet or server. All third-party providers fall into this category unless partnered with a higher education program through DOC.

While the educational content available through third-party providers can provide education and enrichment for incarcerated students, it is also important to be attentive to potential costs associated with these providers. Provider business models will be discussed in greater detail below; however, it is important to note here that while some providers may make educational content free as a way of enticing DOC contracts, they still expect to recoup this cost (many times over) through other services. Therefore, incarcerated students may still pay for "free" educational resources, even if the cost is not immediately apparent.

Model 2: Technology-enabled distance learning

Ashland University's program is the largest and most well-known example of this model. Courses are set on the semester schedule and designed by Ashland faculty in the College of Online Learning. Faculty design the modules, readings, quizzes, and assignments, which are then distributed through third-party platforms. JPay's LMS Lantern, for example, can facilitate the distribution of the modules, readings, and assignments, as well as all (asynchronous) communication between student and the course facilitator. While this model does allow some communication between student and instructor, learning is still done asynchronously and individually, especially as students at different facilities can enroll in the same course. While this means that students may not be able to discuss course content or learn from their peers in the same facility, it also allows

[24] For an explanation of how Saylor Academy works, see The Saylor Academy website: https://www.saylor.org/credit/.

programming to reach facilities where there may be too few students to warrant certain courses, thereby increasing access to programming and student choice. This model is essentially platform-agnostic, and Ashland, for example, must work with and through the providers the state DOC has already contracted with (e.g. JPay, APDS, ATLO Chromebooks, etc.).[25]

Model 3: In-person instruction

Most prison higher education instruction currently falls into this model. Technology (usually laptops/Chromebooks or computer labs) is used to allow students to work on or type assignments, take computer literacy classes, and, in some cases, browse whitelisted websites for research. Students may use tablets to read material or access other related content noted in Model 1 to support their coursework or find additional information on a topic, but they are not the principal means of interacting with the course. While the exact number and distribution of programs in the US is unknown,[26] Washington State DOC's extensive partnership with community colleges is one of the foremost examples of in person instruction systematically implemented at the statewide level, with a similar implementation happening in California.

As the technology landscape within prisons continues to change, in-person programs are also adapting their instruction to best suit the needs of their courses. In some cases, a lab-based format where work is more self-paced may be preferable to the traditional lecture and discussion. In other instances, which will be explored more fully in the final report, programs are exploring hybrid models using virtual presence technology to give lectures or host office hours. Such programs are able to combine some of the advantages of synchronous instruction with the greater flexibility of an online format. Much like in Model 2, students in multiple facilities can enroll in the same course provided their facilities coordinate schedules and have the necessary technology in place. Through such initiatives, programs are finding ways to implement a variety of pedagogies and learning formats more closely aligned to what is available to non-incarcerated students.

While access to technology is important in itself for incarcerated students to learn necessary digital literacy skills, when deployed to support education, its primary purpose is to facilitate access to content, and so it is to content that we now turn.

[25] Interview with David Webb, August 21, 2019.

[26] The Alliance for Higher Education in Prison is currently conducting a survey to capture this information, see: https://www.higheredinprison.org/survey.

## Content

Most students enrolled in a higher education program receive course content directly from the program or instructor. Nonetheless, educational content is also provided as a part of many technological offerings, and may serve as an add-on to make their offering more attractive to state DOCs. In some instances, DOCs may also request specific content that is of interest or use to their population be added. For example, the Wisconsin DOC wanted to provide their students with access to MIT Open Courseware, and worked with a provider, World Possible, to secure that access.[27] As provider options change, considerations of how and what content to make available is changing apace with the rest of the education in prison field. We identify the following trends:

- The content made available through providers like JPay, GTL, APDS and World Possible is generally unlicensed or consists of open access resources pulled from sources such as Khan Academy or Saylor Academy. Providers place a varying emphasis on quality, and while this content is meant to support education, it is unclear whether the appropriateness of the content or the extent to which it could synergize with existing programming is considered by the provider or the DOC.

- Providers like ATLO Software are beginning to offer security screening, in the form of whitelisting or keystroke monitoring, to DOC. Despite concerns over surveillance and censorship in the education community, these developments are making DOC more comfortable with incarcerated students accessing a greater variety of resources.

### *Defining Content*

Most content provided by third parties is sourced from free resources available on the internet. The most commonly cited examples are Khan Academy, Saylor Academy, and Wikipedia.[28] Other resources, such as MIT Open Courseware, can be added at the request of a DOC or specific programs. Testing resources for GED or other certifications (vocational or otherwise) also make up a large proportion of the standard content offered by third-party providers. Scholarly literature, such as monographs or articles, are rarely if ever a part of these standard offerings. For this reason, students in college programs may not find the devices or content offered through third-party providers as useful as they potentially could be.

[27] Interview with Jeremy Schwartz, August 22, 2019.

[28] World Possible's US Justice Chapter gives a preview of available content: http://rachelfriends.org/previews/rachelplus-ju/.

Catalogs of e-books can be provided by the major tablet companies, though with varying price models (see below). These books tend to be out-of-copyright materials made digitally available through initiatives like Project Gutenberg (and therefore carry no licensing fee for the provider). Because these catalogs are based on cost to the provider (in this case the lack of cost), rather than reader interests, these resources may not be useful or appropriate for incarcerated students, or be prohibitively expensive for incarcerated people to access, as companies may charge a pay-by-minute fee to read.[29]

As already noted, there is a growing trend toward whitelisting websites. This has the potential to open up further resources to students, though whitelisting is a time-consuming process whether handled by the DOC or a third party.[30] The key concern is that internal links could allow access to the open internet (e.g. Facebook or Google). Databases and catalogs, because of their high number of links, are generally considered to be too difficult (and time consuming) to whitelist. While partnerships with state library systems exist (e.g. in Louisiana), the ability for students to conduct independent research is still very limited. Facilitating student research and information literacy, however, is not a pressing concern for DOC or providers, though all the representatives we interviewed would be amenable if a resource could be proven secure.

### *Distinguishing Content from Platform*

Few providers offer content only. One provider, Nucleos, provides a platform that can sit on top of existing hardware to facilitate and integrate educational programming as well as provide content. Another provider, Edmentum, provides proprietary learning modules, though its product (now called ExactPath) was not designed for the prison context. Because Edmentum requires internet access, it must be used in a controlled setting, generally a computer lab. The internet, as noted, is a contentious issue for DOCs, but attitudes are changing. However, because of the security required to provide internet access, this can significantly slow down internet speed, leading to buffering problems. Thus, while there is an advantage in being platform-agnostic (Edmentum can work with what DOC already has), there is a drawback in not having specific infrastructure to ameliorate such problems.

[29] Samantha Melamed, "One Review of Pa. Prisons' Pricey Ebooks: 'Books that are available for free, that nobody wants anyway,'" *The Philadelphia Inquirer,* September 21, 2018, https://www.inquirer.com/philly/news/pennsylvania-department-corrections-books-through-bars-philly-new-jim-crow-malcolm-x-20180921.html.

[30] For an example of DOC whitelisted websites, see the approved educational resources from Georgia DOC at: https://gadoc.weebly.com/.

Edovo has found a way around this buffering problem by installing their own local server and caching some of their content. Installing a local server is a common way for providers to make content available in a non-networked environment, and can provide server, content, and device (e.g. Edovo & APDS) or just the server and content (WorldPossible and WiderNet). In either case, when providers choose to provide any hardware in addition to content, they must also accept some responsibility for their support and upkeep. Providing servers only is the less onerous of these options because they have to undergo less security and durability testing as the servers are not being used by incarcerated persons themselves. Providing devices requires the most commitment to continued support. Edovo, for example, has been very successful with its tablet offering, but highlights there have been learning curves for all providers, and there are examples where tablets have been weaponized in a maximum-security facility or used inappropriately.[31] While such cases may be exceedingly rare, the landscape of the corrections world is such that one security breach can raise concerns across the country. Providers must thus carefully consider the security risks and commitment they are making when supplying any kind of hardware, especially individual devices.

A similar commitment may be required of content providers. State DOCs maintain strict policies on what content can be brought in to their facilities, though these can be applied unevenly.[32] However, because content providers often bring in large amounts of materials on servers, DOCs in many cases must rely on the provider to guarantee its acceptability, the task of reviewing gigabytes or even terabytes of content being beyond correctional staff's capacity. The ethical dimensions of this kind of content review, censorship, in other words, is beyond the scope of this discussion. Nonetheless, it is the case that if content considered inappropriate by a DOC is discovered on one of these servers, the DOC may remove it entirely and be reluctant to allow in other information resources in the future. This can also damage the relationship of trust build between programs and a DOC. In one case, New Jersey's STEP program brought in the eGranary server to support its programming where a student found content prohibited by the DOC on the server.[33] While the program itself chose to disable the server rather than risk its relationship with the DOC, such an event could easily have had severe consequences for both the program and the student. Ensuring the security of both devices and content is vital to maintaining the relationships of trust that have often taken years to cultivate. The task, however, is immense, requiring significant resources and expertise, and therefore, providers' business models can have a major impact on their offerings.

[31] Interview with Brian Hill, September 10, 2019.

[32] James Tager et al., "Literature Locked Up: How Prison Book Restriction Policies Constitute the Nation's Largest Book Ban," PEN America, 2019, https://pen.org/literature-locked-up-prison-book-bans-report/.

[33] Interview with Sheila Meiman, January 3, 2020.

## Business Models

The growing emphasis on providing education in prison presents a host of opportunities for incarcerated persons to learn and invest in themselves and their futures—and for providers to make profit. The technology-provider landscape is dominated by a handful of for-profit providers, though smaller nonprofits and for-profit public benefit companies are also increasingly active in the space (Figure 4). Though we can group providers into these three categories, their various services and offerings dictate divergent business models which, in turn, affects different relationships with Departments of Correction, educators, and incarcerated students. Because the third-party provider landscape has been criticized for predatory and exploitative practices, it is imperative to elucidate these business models and their intersection with higher education programming in prisons. In doing so, the following trends emerge:

- Though there is great variation between the states, the providers possess some capacity to standardize across them. Providers must strike a delicate balance between catering to individual DOC concerns while also not making costly investments in redesigning services for each jurisdiction.

- Because their market consists of the DOC and not the actual end users, providers must prioritize DOC interest and concerns rather than those of the actual consumers or users of their products. Selling ease of use and control, therefore, is a fundamental aspect of the provider business model.

- The growing momentum behind prison education has encouraged an expansion of providers, each with their own business model, philosophy, and mode of engaging or providing higher ed. programming.

Figure 4: Providers and their business models

| | For-Profit | Public Benefit | Not-for-Profit |
|---|---|---|---|
| Education and other services | Securus/JPay, GTL | Edovo | |
| Education only | ATLO, Edmentum | APDS | WorldPossible, Widernet |

### *For-Profit Providers*

When the Department of Education released its report on educational technology in corrections in 2015, it listed the main providers of mobile devices in the prison space.[34] The intervening five years has seen the rapid consolidation of the industry. Of the seven companies, Union Supply Group, Innertainment Delivery Systems (IDS), JPay, Jail Education Solutions (now Edovo), Telmate, GTL, and APDS, two have been acquired by GTL (IDS and Telmate), while JPay has been acquired by Securus Technologies. The prison technology landscape, therefore, is dominated by two main for-profit providers, Securus/Jpay and GTL (formerly Global Tel Link). These providers exist independently of education programming, their main business coming from the provision of communication services and contracts with prison commissaries. The technological offerings of these two companies are similar: both offer tablets specifically designed for the prison environment.

The tablets can enter facilities in several ways. In some instances, the entire state system will contract with a provider to bring these tablets in, making them available to every person in the state system. In these instances, the tablets may be provided for free, their cost being recovered through fees associated with various services on the device. The fees can be considerable, and since providers may share profits with the DOC, state systems are financially incentivized to contract with these providers.[35]

Education is not then a core service offered by Securus/JPay or GTL, but rather serves to differentiate their offering in the marketplace, or as a "loss leader" to secure a contract. For this reason, their tablets come with some form of learning management system that could be utilized to facilitate higher education programming. The most significant example of this is JPay's partnership (though not exclusive) with Ashland University through Jpay's LMS, "Lantern." Though education is not a core part of their business, and their tablets were not designed to facilitate education specifically, the ubiquity of their presence in prison systems gives them a competitive edge in the education market; prisons and programs do not need to bring in their own hardware, everything can be done through the tablet incarcerated persons already have. This advantage has come to

[34] Tolbert et al., "Educational," Table 1, p. 11.

[35] Indeed, some DOCs can receive commissions upwards of 95 percent, thus inflating costs to incarcerated people and their families well beyond that of the free world. See Peter Wagner and Alexi Jones, "On Kickbacks and Commissions in the Prison and Jail Phone Market," *Prison Policy Initiative*, February 11, 2019, https://www.prisonpolicy.org/blog/2019/02/11/kickbacks-and-commissions/. See also: Lauren-Brooke Eisen, "The Prison Industrial Complex," In *Inside Private Prisons: An American Dilemma in the Age of Mass Incarceration*, 68-78. New York: Columbia University Press, 2018, esp. pp. 73-75.

the fore during the COVID-19 pandemic, when some programs were quickly able to move their in-person instruction online using the JPay tablets the facility already used.[36]

Aside from tablet and communications provision, providers can offer infrastructural and security support as well as actual education content. ATLO, a provider based in Louisiana, contracts with DOCs to provide secure learning and testing centers within prisons, allowing incarcerated individuals to take GED and certification exams without having to leave the facility. ATLO also provides security-screening services to DOCs, for example whitelisting websites, thus easing the burden on DOC IT staff. Edmentum, which offers online, adaptive curricula tailorable to the individual, is an unusual example of a product used widely on the outside being brought into the prison environment. Edmentum charges DOCs a set-up and licensing fee based on the number of students using its platform.

The delivery and access to content provided through these platforms can, however, be deeply problematic. Most recently, criticism has arisen over GTL's charging incarcerated persons by the minute to read otherwise free e-books from Project Gutenberg.[37] A further concern of the bundling of content with the device is that it could lead Departments of Correction to prohibit the entry of free physical books, donated and sent to facilities by a number of charities, as all physical books must undergo security screening.[38] This has already happened in Pennsylvania,[39] and was attempted in New York and Maryland until public outcry forced a retraction of the policy.[40] The potential of using devices to limit rather than expand access to information is thus a serious concern.

[36] See discussion notes from the Alliance for Higher Education in Prison on adapting pedagogy in a crisis, https://docs.google.com/document/d/1pNBqnEpNwZmL2Iggn4Bm9frj6TE8eiLH/edit.

[37] See above, Tager, "Literature," as well as "How Much Does It Cost to Read a Free Book on a Free Tablet?" Appalachian Prison Book Project, November 20, 2019, https://appalachianprisonbookproject.org/2019/11/20/how-much-does-it-cost-to-read-a-free-book-on-a-free-tablet/, as well as Michael Waters, "Free Tablets for the Incarcerated Come with a Price," *The Outline*, December 3, 2019, https://theoutline.com/post/8329/jpay-free-tablet-program-ripoff?zd=5&zi=hrhj3pl5.

[38] Tager "Literature," see also: Christopher Zoukis, "Censorship in Prisons and Jails: A War on the Written Word," *Prison Legal News*, December 4, 2018, https://www.prisonlegalnews.org/news/2018/dec/4/censorship-prisons-and-jails-war-written-word/.

[39] Samantha Melamed, "One Review of Pa. Prisons' Pricey Ebooks: 'Books that are available for free, that nobody wants anyway'," *The Philadelphia Inquirer,* September 21, 2018, https://www.inquirer.com/philly/news/pennsylvania-department-corrections-books-through-bars-philly-new-jim-crow-malcolm-x-20180921.html.

[40] Mack Finkel and Wanda Bertram, "More States Are Signing Harmful "Free Prison Tablet" Contracts," Prison Policy Initiative, March 7, 2019, https://www.prisonpolicy.org/blog/2019/03/07/free-tablets/.

### *Public Benefit Companies*

Likely in response to critiques of exploitation levied at for-profit companies active in the prison space, some newer providers have incorporated as public benefit companies (PBC). A Public Benefit Company is a for-profit endeavor like any other for-profit company, but while a for-profit company must prioritize the financial interests of its shareholders, PBCs are allowed to include in their charter the furthering of some public good *in addition* to maximizing shareholder value. American Prison Data Systems (APDS) and Edovo are two examples of this kind of provider, and both stress that they do not charge incarcerated individuals fees for using their tablets or to access the educational content on them (indeed, APDS maintains a library of books on its device available without charge to incarcerated people, though this library is not available separately from the APDS tablet). Despite these similarities, there are also important differences between these two providers. APDS's tablet solution is strictly for educational programming, as it offers no phone or commissary capabilities. Edovo on the other hand more closely follows the integrated approach taken by Securus/JPay and GTL. As Edovo president Brian Hill has noted, this has allowed them to scale more easily and quickly than other companies, the phone and commissary capabilities having a more structured sale cycle in many jails and DOCs. In this way, these additional functionalities can act as a "Trojan horse" to get educational programming to a greater share of the incarcerated population.[41]

Because of their educational focus, these providers are most likely to be found in jurisdictions taking an active interest in increasing educational services for their populations. Otherwise, the business model is relatively the same as the standard for-profit providers, selling hardware and an annual licensing fee for ongoing monitoring and service. However, the most potent selling point of these providers is likely their status as public benefit corporations. Accusations of exploitation and price gouging have long dogged the "prison industrial complex," to the point that in 2015 the FCC set a limit on the fees companies can charge to make phone calls (litigation over this ruling is ongoing). As there is growing awareness of the problem of mass incarceration, and with it, increasing public scrutiny, collaborating with companies that have the furtherance of the public good as a part of their charter is likely an important public relations consideration when deciding between vendors.

[41] Interview with Brian Hill, September 10, 2019. It is interesting to note that this approach is essentially the inverse of the for profit providers, who use education as a "loss leader" to sell other services to the Department of Corrections, perhaps as a result of marketing to different DOC priorities.

### *Not-for-Profit Providers*

Few not-for-profit providers exist in the prison education landscape, and those that we are aware of (WorldPossible and WiderNet) have missions focusing on the developing world, rather than prisons. These providers offer content and the platforms that host it, but generally do not provide the security screening or consultative services of the other providers. The not-for-profit providers also do not offer devices for use by incarcerated persons themselves, likely because the costs of maintaining and monitoring such extensive offerings would be beyond their capacities. While not-for-profits play a substantial role in other aspects of prison higher education, the capital costs associated with developing, implementing, and supporting technological services on par with the other providers may be an insuperable barrier to increased deployment.

### *Discussion: Business Models and Educational Programming*

All three of these business models intersect and coexist in the prison environment. As noted, providers like Securus/Jpay and GTL dominate the prison communications and information space. Their large footprint means that they are often present within the prison, whether or not they are used as a part of education programming. The tablets offered by these providers can be purchased by incarcerated persons or their families, provided by the DOC, provided as a part of education programming (e.g. through Ashland University's program), or provided for free (with the expectation that the cost will be recovered through fees). The ubiquity of these providers and the level of security they are able to assure DOCs of, can encourage DOCs to enact changes that will allow new services, such as offering Wi-Fi into their facilities, as has happened in Louisiana.[42]

In some jurisdictions, these tablets coexist with offerings from other providers. For example, JPay tablets may be provided to all incarcerated people within a prison, while those enrolled in education programming may also be provided with an APDS tablet or Chromebook. In these cases, the education-focused providers have successfully convinced DOC that their platforms are better for learning, to the point that DOC is willing to invest its time and energies bringing in an additional system. These providers typically pass on fewer, if any, costs to end users, meaning that payment for service must be borne principally by the DOC or higher education programs. Considering the revenue-generating contracts typical of DOC's contracts with providers like Securus/JPay or GTL, the fact that prison systems are willing to purchase from these other providers is a testament to how quickly the landscape of education in prison is changing.

[42] Interview with Andrea Buttross, August 28, 2019.

In some instances, however, it is neither the facility nor the program that pays, but rather students through Pell grants. While there exists a mandate for prisons to support GED education, higher education enjoys no such directive, and so, while there is certainly interest in higher education, the financial viability of many programs is tied to the extension and expansion of Second Chance Pell.

Despite the importance of the federal Second Chance Pell pilot program, some of the most successful models for expanding access to higher education have been initiated at the state level. While these examples are by no means the only viable models for expanding access, we believe they offer immense promise, and so highlight them in the following section.

## A Promising Model

A few promising models for offering higher education in prisons have emerged that offer insights for others to consider. Again, certain trends can be isolated:

- The discussion around models for higher education in prisons revolve around three key issues: Quality, Scale, and Ease. The intersection of these three issues is driving the current debate around online vs. in-person instruction.

- High-level support (e.g. from the governor) is critical to effecting broad changes and increasing access to higher education as well as informational and technological support. This support appears to be growing.

Certain states have found ways to systematize higher education in prison offerings through their state's community college system. One example of this is Washington State where most state prison facilities have a remote community college campus, allowing incarcerated students to enroll, take college classes for credit, and work towards an Associate's Degree.[43] The community colleges themselves hire a site dean that works full time on the prison campus. The technology used is determined by each campus, but generally must adhere to DOCs' guidelines (e.g. no internet, though a pilot program to offer internet is in progress at a women's facility). Courses are facilitated through offline versions of Blackboard or Canvas, and instructors can bring in flash drives and printed materials, which, of course, must be screened. Whitelisting is also being done, with websites proposed by instructors and screened by the DOC.

[43] Interview with Loretta Taylor, August 26, 2019.

Important in the Washington model is the state's commitment to providing instruction, actively collaborating with the community college system to facilitate it, and a willingness to experiment with internet access (this is partially a result of an executive order by the governor).[44] The state also made a commitment to favoring in-person instruction, seeing the lack of personal interaction in online education as a major drawback. There may still be a role for technology to provide distance learning, for example to allow students to take classes at other colleges, but the state is currently envisioning a hybrid model to facilitate this.

A similar model exists in California, again because of leadership from the governor as well as recent legislation (SB 1391) that allowed community colleges to collect apportionment for serving incarcerated students, making higher education in prison programs financially viable. Minnesota may soon be experimenting with expanding in-person programs across the state, again owing to gubernatorial support,[45] and Michigan has implemented a series of "vocational villages" where students live and gain vocational training. Fundamental to these programs is the political will to expand and fund these programs.

As these programs have expanded by the grace of changing political and public sentiment and consequent funding, they have, in some cases, met with serious obstacles not easily overcome. In California, for example, while funding exists alongside a strong partnership with 19 community colleges and universities and five correspondence colleges, the primary obstacle to increasing programming has been limited classroom space.[46] This is a commonly reported issue in prison higher education, and though much enthusiasm surrounds Second Chance Pell and the possibility of expanding Pell grants to incarcerated people generally, it will be crucial to develop DOC infrastructure in tandem with this expansion. The capacity of this infrastructure will likely play an important role as DOCs consider allowing or expanding in-person, online, or hybrid models of instruction in their facilities.

Despite such limitations, some of these programs have found ways to scale up their offerings and to a certain extent demonstrate that the conflict between quality and scale is, in many respects, a question of the political will and leadership to open up funding and coordinate the expansion of programming. Nonetheless, as access to education expands, it will be important to ensure that access expands across custody levels and

[44] See the Governor's Executive Order 16-05: https://www.governor.wa.gov/sites/default/files/exe_order/eo_16-05.pdf.

[45] See Liz Sawyer, "College at Prison Pilot Program Expected to Launch Next Fall," *Star Tribune*, December 29, 2019: https://www.startribune.com/college-at-prison-pilot-program-expected-to-launch-next-fall/566539232/.

[46] Interview with Shannon Swain and Rebecca Silbert, November 19, 2019.

locations. Transfers between facilities can often mean the interruption or cessation of programming if the new facility does not have its own higher education program, which is why state-wide models like Washington and California are especially promising.

## Conclusions

Though the project is still progressing, it will be helpful to draw out some preliminary conclusions, some of which will guide us in the next phase of research. As the research is still ongoing, what is given here will likely be expanded and contextualized once the research is complete.

### *The Promise and Peril of Tablets*

In 2015, the Department of Education pointed to tablet technology as holding special promise for prison education programming. In the intervening years, the prison tablet market has exploded, and many states now use tablets for a variety of functions. Indeed, as Marcie Koetke, director of education for Minnesota DOC, notes, tablets are still the "big new thing" and DOCs are looking to them to circumvent some of the problems of time, space, and resources.[47] How effectively tablets can be used to support education, however, is an open question whose answer appears to be inclining towards the negative. Several DOC state directors of education say they simply do not see tablets as an effective learning tool, recognizing the need for a full-sized computer or laptop to complete assignments or write a paper. Indeed, states like Georgia and Louisiana that had initially used tablets for postsecondary programming are already transitioning to Chromebooks or the Securebook as more functional options, and other states may be looking to follow suit.[48]

The real promise of tablets seems then to be in providing a way to use time constructively apart from educational programming, but not providing it directly. Tablets do have the potential to be used by higher education programs, for example to provide digital access to academic resources like articles and videos, but this will require workflows and protocols agreed upon between the provider, the state DOC, and the program. The complexity of establishing this kind of coordination may discourage many programs and DOCs that may feel they have been able to provide effective instruction without such

[47] Interview with Marcie Koetke, August 27, 2019.

[48] Interviews with Andrea Buttross, Melinda Dennis, Shannon Swain, and Sheila Meiman. Similarly, Washington DOC did not see tablets as a good solution to begin with, and have begun to pilot laptop implementations in some of their community college campuses, interview with Loretta Taylor, August 26, 2019.

supports. However, as the current COVID-19 pandemic has shown, access to a variety of delivery and communication options can be vital to continue programming through unexpected disruptions (not uncommon in prisons, though not, of course, at the scale of COVID-19). While maintaining the centrality of in-person instruction, having access to a variety of instructional modalities will allow programs to be more flexible and resilient as they pursue their core mission of providing quality education to incarcerated people.

Finally, while the exploitative fee structure of some providers may vitiate their use as educational supports, as a whole, the tablet craze in corrections seems to be having the ancillary effect of shifting DOCs' culture towards the acceptance of technology in their facilities generally. This shift is likely to support the further testing of internet pilots and whitelisting programs that will, hopefully, allow incarcerated students the access to information they need to support their education.

### *Whitelisting, Internet Pilots, and Offline Databases*

Allowing access to the internet through whitelisting is perhaps the development with the most potential to significantly impact postsecondary education in prisons. The principal limitation here is the need to vet every site and every embedded link for prohibited content and ensure users cannot access the open internet. Because of these constraints, whitelisting something like a library catalog or academic database, with thousands, if not millions of pages of records, is a herculean task—Sisyphean when one considers that webpages can easily be edited to be no longer compliant with DOCs' protocols, thus requiring ongoing scrutiny. However, much like with the introduction of tablets and laptops, these initial forays into allowing the internet into facilities may slowly increase comfort among corrections staff with internet access.

Parallel to these whitelisting efforts and internet pilots, some providers are experimenting with creating offline versions of their resources to be used in the prison context. The academic journal repository JSTOR, for example, has made an offline index of its titles available to prison education programs, that, while not containing full-text articles, allows incarcerated students to conduct some form of research on their own (full-text articles are printed outside of the prison and then brought in by instructors).[49] Creating an offline database that contains full-text articles is an obvious next step, though challenging when considering the variety of DOC security concerns and protocols. However, it is not inconceivable that the major journal providers could develop a curated collection (e.g. of most-used content) and make it available in an offline format. While direct access through whitelisting may be preferable, the variation

[49] In the interest of full disclosure, note that JSTOR and Ithaka S+R are both services of ITHAKA.

in what state DOCs are willing to allow means that a variety of solutions will need to be developed.

In addition to students' needs surrounding access to information for coursework, it is vital that currently incarcerated persons are allowed to develop the digital and information literacies they will need post release. The transition from an impoverished and tightly controlled information environment to one where information, misinformation, and disinformation flow freely over the internet is surely a difficult one, and successful reentry hinges, in part, on one's ability to quickly adjust.[50] The ability to navigate the vast amounts of information on the internet is vital now more than ever, and if we expect the formerly incarcerated to be productive and informed members of society, it is imperative that they be allowed to develop these skills while still incarcerated.

### *Uncertain Quality*

Underlying much of the discussion over technology platforms and content is the issue of quality—what constitutes a quality device, what is quality content, what are the quality practices surrounding the use of both in support of higher education. Complicating any understanding of this issue is the fact that so little data is collected on this population, though organizations like the Institute for Higher Education Policy (IHEP) and the Alliance for Higher Education in Prison (AHEP) are beginning to address this shortfall.[51]

When it comes to technology and distance learning, the metrics of quality would, ideally, be the same as those outside of the prison system. However, given the extreme constraints placed upon programs by DOC security concerns, this is not always possible. Distance learners, should, for example, be able to freely contact their instructor or their peers, which is generally impossible for incarcerated students (and most LMSs will have such chat features disabled). Furthermore, given that incarcerated people represent a historically marginalized, underserved, and vilified population, special care should be taken to ensure that bad actors and low-quality programs are not allowed to exploit the current growing support for prison education. This holds especially true in the case of technology, which, as the IJIS Institute white paper noted, "will provide new options for charging and collecting."[52]

[50] Capturing this experience will be a focus of the second phase of research.

[51] See the Alliance's Higher Education in Prison Landscape Project: http://www.higheredinprison.org/national-directory.html;

[52] Anderson et al., "Corrections Tech," 15.

Technology, of course, is but a conduit for content, and while providers can load massive amounts of materials onto servers, this can be of varying quality and utility. This can be especially true if the goal is to support actual postsecondary coursework, rather than independent learning (though perhaps such servers can find use in higher education programming by teaching students how to sift through and find information). At present, it is unclear the extent to which such content is actually being used in the context of higher education. Providing access to large amounts of quality information, similar to what non-incarcerated students would be able to access on campus, is difficult to replicate in the prison environment. Content providers who wish to support higher education in prisons will need to wrestle with the ethical dimensions of self-censoring their offerings to comply with DOC security policies if they want to make content directly available to incarcerated learners. How prison censorship, and especially self-censorship, affects student's access to information is an important issue in need of further research.

## Project Next Steps

The second phase of the project is currently underway. While the first phase focused on gathering higher-level perspectives on the issues of technology and information access, the current research will explore how this actually plays out in the classroom. To do this, we are interviewing instructors, program coordinators, librarians, DOC IT personnel, and formerly incarcerated students from both states/systems we have already interviewed, as well as those we have not.[53] Through these perspectives, we hope to contextualize our findings from the first phase of research and explore how DOC policies, technologies, instructors, and students all intersect in practice.

In particular, we hope to capture perspectives on the following questions:

- What are the challenges instructors and students face in actually using these platforms to teach and learn?
- How effectively can students use technology for independent learning, and as ancillaries to coursework?
- What is the extent to which in-person programs are relying on these technologies, if at all, and what is the extent to which they are integrated with pedagogy?
- Is the content bundled with devices used for postsecondary coursework?

[53] While the perspectives of currently incarcerated students are of undeniable value, the logistics of interviewing currently incarcerated students were deemed too complex to fit in the current study's timetable.

- Are there any cases in which students are conducting research in a way that approximates the outside?

- What services are academic libraries currently providing and how are they doing it?

- How important or transformative is internet access through whitelisting? Beyond whitelisting an institutional LMS, is there anything that is actually critical to instruction being accessed in this way? Are students learning critical digital skills through these initiatives?

- Given DOC Security concerns, under what conditions could high-quality, technology-supported education exist in a prison context, and what might it look like?

- Can we identify "best practices" with respect to technology adoption and information resource provision?