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The Hardship That is Internet Deprivation and What it Means for Sentencing: Development of the Internet Sanction and Connectivity for Prisoners

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**THE HARDSHIP THAT IS INTERNET DEPRIVATION AND
WHAT IT MEANS FOR SENTENCING: DEVELOPMENT OF
THE INTERNET SANCTION AND CONNECTIVITY FOR
PRISONERS**

*Mirko Bagaric, Nick Fischer, and Dan Hunter**

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I. INTRODUCTION

Criminal sanctions involve the deliberate infliction of pain on offenders.¹ In sentencing, “the state may use its most awesome power: the power to use force against its citizens and others.”² Despite the cardinal interests at stake in sentencing, it is one of the least developed and least progressive practices in our society.

1. C. L. TEN, *CRIME, GUILT AND PUNISHMENT* 2 (1987); JEREMY BENTHAM, *PRINCIPLES OF MORALS AND LEGISLATION* 158 (J. H. Burns & H. L. A. Hart eds., 1970); NILS CHRISTIE, *LIMITS TO PAIN* 19, 48 (1981).

2. Andrew E. Taslitz, *The Rule of Criminal Law: Why Courts and Legislatures Ignore Richard Delgado’s Rotten Social Background*, 2 ALA. CIV. RIGHTS & CIV. LIBERTIES L. REV. 79, 81-82 (2011).

Technological advances have resulted in momentous changes to nearly every area of human activity, including engineering, medicine, transportation, hospitality, teaching, learning, and communication. A notable exception to this is the manner in which the community punishes criminals. The bedrock process for dealing with serious criminals now, as it has been for hundreds of years, is to segregate them from the rest of society by placing them behind high impenetrable walls called prisons. There are now approximately 1.6 million Americans behind such walls.³ The United States imprisons more of its people than any other country on earth. Remarkably, the incarceration rate in the United States is ten times higher than in some other developed countries.⁴

This record number of incarcerations in the United States has resulted in an incarceration crisis. There are loud and wide-ranging calls for fundamental reform to the sentencing system.⁵ The financial burden alone of incarcerating almost 2 million citizens is becoming intolerable, even for the world's largest economy.⁶ California and 11 other states spend more on prisons than higher education.⁷ The total spending on

3. E. Ann Carson, *Prisoners in 2014*, BUREAU OF JUSTICE STATISTICS (Sept. 17, 2015), <http://www.bjs.gov/content/pub/pdf/p14.pdf> [<http://perma.cc/LK7R-5Q2Q>].

4. Inst. for Criminal Policy Research, *Highest to Lowest – Prison Population Rate*, WORLD PRISON BRIEF, http://www.prisonstudies.org/highest-to-lowest/prison_population_rate?field_region_taxonomy_tid=All [<http://perma.cc/9GHX-C2Y4>] (last visited June 17, 2016). Denmark, Sweden, Finland, Japan, and Iceland (and a number of unexpected developing countries such as South Sudan, Tanzania, Syria, and Yemen), for example, all have an imprisonment rate less than ten times that of the United States. *Id.*

5. See, e.g., Sabrina Siddiqui, 'An injustice system': Obama's prison tour latest in late-term reform agenda, THE GUARDIAN (July 17, 2015, 6:43 PM), <http://www.theguardian.com/us-news/2015/jul/16/barack-obama-prison-tour-criminal-justice-race-reform> [<http://perma.cc/2F2B-4EDT>]; Hillary Clinton, *Our criminal justice system is out of balance*, HILLARY FOR AMERICA (July 8, 2017), <https://www.hillaryclinton.com/issues/criminal-justice-reform> [<http://perma.cc/6F57-WJFS>]; *Notable new group advocating for sentencing reforms: Law Enforcement Leaders to Reduce Crime and Incarceration*, SENTENCING LAW AND POLICY: LAW PROFESSOR BLOGS NETWORK (Oct. 21, 2015), http://sentencing.typepad.com/sentencing_law_and_policy/2015/10/notable-new-group-advocating-for-sentencing-reforms-law-enforcement-leaders-to-reduce-crime-and-inca.html [<http://perma.cc/7AGF-75CE>]; Peter Baker, *2016 Candidates Are United in Call to Alter Justice System*, THE NEW YORK TIMES (Apr. 27, 2015), http://www.nytimes.com/2015/04/28/us/politics/being-less-tough-on-crime-is-2016-consensus.html?_r=0 [<http://perma.cc/VP86-X9GJ>].

6. In relation to the cost of crime, see EXEC. OFFICE OF THE PRESIDENT, ECONOMIC PERSPECTIVES ON INCARCERATION AND THE CRIMINAL JUSTICE SYSTEM (Apr. 2016); DO PRISONS MAKE US SAFER? THE BENEFITS AND COSTS OF THE PRISON BOOM (Steven Raphael & Michael A. Stoll eds., 2009); Chris Doucouliagos et al., *Are Estimates of the Value of a Statistical Life Exaggerated?*, 31(1) JOURNAL OF HEALTH ECONOMICS 197 (2012).

7. Hansook Oh & Mona Adem, *California budgets \$1 billion more to prisons than higher education and leaves students hanging*, THE SUN DIAL (Sept. 19, 2012), <http://sundial.csun.edu/2012/09/california-budgets-1-billion-more-to-prisons-than-higher-education-and-leaves-students-hanging/> [<http://perma.cc/26VR-NV6B>]; ECONOMIC PERSPECTIVES ON INCARCERATION AND THE CRIMINAL JUSTICE SYSTEM, *supra* note 6, at 44.

prisons is now over \$80 billion annually.⁸ The annual total expenditure on the criminal justice system is \$270 billion—equating to approximately \$900 per capita.⁹

That the criminal justice system would find itself in a state of crisis is to be expected. Reliance on antiquated processes in an otherwise progressive and innovative society is an unsustainable misalignment. Not only has the sentencing system not been reformed by technological advances, but it has steadfastly refused to factor in momentous changes in human behavior regarding the use of technology and its importance to human flourishing.¹⁰ The last two decades have seen fundamental global changes to the manner in which humans communicate, interact, and choose to spend their discretionary time. Computers and, in particular, the internet have infused nearly every part of human behavior and activity.¹¹ It is incontestable that most individuals are spending considerable periods and increasing amounts of time on the internet for a myriad of purposes.¹² People are electing to utilize their computers and other technological devices in preference to many other activities. Internet access is now central to human flourishing, at least in the global North and increasingly in developing countries; it is the fulcrum around which many things that are meaningful to the lives of many individuals are grounded.

Recently, the United States Court of Appeals for the D.C. Circuit ruled that the internet needs to be regulated as a utility—much like other central infrastructures of people’s lives, such as electricity, water, and refuse collection.¹³ Like the removal of other utilities, denial of computer access would constitute a considerable deprivation to most people.¹⁴ Yet

8. Melissa S. Kearney & Benjamin H. Harris, *Ten Economic Facts about Crime and Incarceration in the United States*, THE HAMILTON PROJECT 13 (May 2014), http://www.brookings.edu/~media/research/files/papers/2014/05/01%20crime%20facts/v8_thp_10crimefacts.pdf [<http://perma.cc/PN6C-9ZTH>]. This is \$260 per capita. ECONOMIC PERSPECTIVES ON INCARCERATION AND THE CRIMINAL JUSTICE SYSTEM, *supra* note 6, at 5.

9. ECONOMIC PERSPECTIVES ON INCARCERATION AND THE CRIMINAL JUSTICE SYSTEM, *supra* note 6, at 5.

10. A limited exception is the electronic monitoring for a relatively small number of offenders (less than 100,000). For an overview of the use of electronic monitoring, see Mike Nellis, *Electronic Monitoring: Exploring the Commercial Dimension*, 58 CRIM. JUST. MATTERS 12 (2008); Matthew DeMichele & Brian Payne, *Offender Supervision with Electronic Technology: Community Corrections Resource*, BUREAU OF JUSTICE ASSISTANCE (2009), https://www.appanet.org/eweb/docs/APPA/pubs/OSET_2.pdf [<http://perma.cc/JZ5C-JEMR>]; Lars H. Andersen & Signe H. Andersen, *Effect of Electronic Monitoring on Social Welfare Dependence*, 13 CRIMINOLOGY & PUB. POL’Y 351 (2014).

11. See *infra* Part II.

12. See *infra* Part II.

13. See *United States Telecom Ass’n v. F.C.C.*, 825 F.3d 674 (D.C. Cir. 2016).

14. *Id.*

prisoners are reflexively denied computer and internet access without any regard to the newfound hardship that this imposes on them.¹⁵

Given that criminal sanctions impose pain on offenders, it is essential that there is a correct calibration of the degree of pain that these sanctions actually inflict; otherwise, there is a considerable risk that as a society we are over-punishing criminals. Punishment beyond that which is proportionate to the seriousness of the offense is akin to punishing the innocent and is, therefore, morally repugnant.¹⁶

Criminals engender no community sympathy and have no political capital.¹⁷ Perhaps as a result of this, there has been no systematic attempt to measure the suffering that sanctions inflict on offenders. However, moral principles are not shut out by prison walls or by the stigmatization that stems from a criminal conviction. Rather, moral norms are of universal application.¹⁸ Accordingly, it is imperative that as a society we should punish criminals no more severely than is commensurate with the gravity of their crimes.¹⁹ The principle that the “punishment should fit the crime” is one of the few enduring bulwarks of criminal justice.²⁰ For this principle to be operationalized, it is necessary to accurately assess the extent to which sanctions set back fundamental human interest.

In this Article, we set forth a number of fundamental reform proposals to sentencing law and practice, which stem from profound changes to human behavior that the internet has generated over the past two decades. The effect of the reforms will be to integrate internet access into the penal process and to make sentencing a fairer and more efficient process, while also ensuring that the key objectives of sentencing in the form of community protection and proportionate punishment²¹ are enhanced.

The first key proposal is that a new criminal sanction should be developed. It would consist of a blanket prohibition against using the internet. The advantage of this proposed sanction is that it is an efficient and cost-effective method of inflicting hardship on offenders. Internet

15. See *infra* Part III.

16. R. A. DUFF, TRIALS AND PUNISHMENTS 154-55 (Cambridge Univ. Press 1986).

17. See Mirko Bagaric et al., *A Principled Strategy for Addressing the Incarceration Crisis: Redefining Excessive Imprisonment as a Human Rights Abuse*, 38 CARDOZO L. REV. 1663.

18. See J. L. MACKIE, ETHICS: INVENTING RIGHT AND WRONG 83-102 (Pelican Books 1977).

19. JESPER RYBERG, THE ETHICS OF PROPORTIONATE PUNISHMENT: A CRITICAL INVESTIGATION 184-85 (2004).

20. *Id.*

21. See Mirko Bagaric, *From Arbitrariness to Coherency in Sentencing: Reducing the Rate of Imprisonment and Crime While Saving Billions of Taxpayer Dollars*, 19 MICH. J. OF RACE & THE LAW 349 (2014) [hereinafter Bagaric, *From Arbitrariness to Coherency in Sentencing*].

deprivation should be developed as a criminal sanction in the same way as deprivation of other privileges, such as how cancelling a motor vehicle license is used to punish some offenders.²² As a general rule, it should be used as a substitute to all prison terms not exceeding one year and as an alternative to prison terms that would otherwise be imposed for some other types of non-sexual and non-violent offenses. In terms of substitution, we propose that each day in prison is the equivalent to an internet ban of three days.

Secondly, we argue that prisoners should have unencumbered internet access. One of the main reasons for this is that access to the internet is not intrinsically harmful; it would assist offenders to understand developments in the wider community and help with their reintegration into society once they are released. Internet access can also considerably enhance the educational options for prisoners, which could have the incidental, yet considerable, benefit of reducing their likelihood of reoffending.²³ Moreover, it is now possible to readily track every internet keystroke of a prisoner thereby greatly minimizing the opportunity for prisoners to misuse the internet.²⁴

Our third proposal is an alternative to our second recommendation. If the status quo remains and prisoners are not granted internet access, we argue that the denial of internet in the prison setting should be factored into the burden of imprisonment. This reassessment of the pains of imprisonment demonstrates the fact that prison is currently a harsher sanction than is assumed to be the case. Under our proposal, when sentences of imprisonment are still imposed they should generally be shorter given the recognition of the increased burden of imprisonment. We suggest that there should be a reduction in prison time in the order of 20% to accommodate the hardship that stems from internet deprivation.

At the outset, it is important to note that the proposal that prisoners should have access to the internet is not inconsistent with our recommendation that internet denial should be a stand-alone sanction. The fact that prisoners should have access to the internet is: (1) a concession to the reality that some offenses (namely serious sexual and violent crimes) are too serious to be dealt with by sanctions other than imprisonment; and (2) reflective of the desire to reduce recidivism levels once offenders are released. Moreover, the key unifying principles that underpin the recommendations in this Article are that denying people

22. See *infra* Part II.

23. See *infra* Part IV.

24. See *infra* Part IV.

access to the internet is a meaningful hardship, and in imposing criminal sanctions it is necessary to calibrate the pain stemming from the sanction as accurately as possible.

In Part II of this Article, we examine the profound impact of the internet in the past two decades and the cardinal role it has assumed in human flourishing. This is followed in Part III by an analysis of the manner in which the internet is currently utilized in the sentencing process. In this Part we demonstrate the novelty of our proposal, as the concept of the internet sanction has not been previously implemented, or even proposed. We also examine the extent to which the internet is currently available in prisons and show that there is in effect a near total prohibition of the internet within penal environments. In Part IV we argue that internet deprivation should be a stand-alone sanction. Part V sets out the reasons why prisoners should have access to the internet. If this proposal is not adopted, we explain in Part VI why deprivation of the internet in prisons should result in shorter prison terms. In Part VII, we briefly conclude.

We undertake the analysis in this Article against the backdrop of two existing sentencing systems: those currently operating in the United States and Australia. These systems are examined because both have undergone considerable change over the past 40 years. The United States and Australia are flourishing, highly-educated democracies with the capacity to make informed, intelligent, and evidence-based public policy decisions. While their sentencing systems have greatly diverged in terms of the manner in which sentencing determinations are made,²⁵ both systems have striking commonalities regarding the nature of criminal sanctions that are currently employed, and in particular the role of the internet. Further, they both have one common sentencing problem: over-incarceration. The recommendation in this Article offers solutions to this problem, which should be implemented in both countries.

II. THE INTERNET: FROM CURIOSITY TO NECESSITY

To contextualize our arguments in support of the internet sanction and prisoner internet access, in this Part of the Article we provide an analysis of the role of the internet in modern life. In short, the internet has penetrated every part of the lives of most people. Internet access enhances human flourishing and many people experience considerable anxiety and inconvenience if they are denied access to the internet. More fully, we

25. *See infra* Part II.

now discuss the growth of internet use in America and Australia; the growing recognition of access to the internet as a “right”; and also, the importance of the internet in social networks, to consumers, in business, and as correlating to educational attainment.

A. *Growth of the Internet Generally*

The internet is now so prevalent in the lives of people living in developed countries that it is easy to forget that its revolutionary effect on the exchange of information dates back a mere 20 years. The “explosion of the Internet onto the business and cultural scene” in 1994, according to business historian Bruce Kogut, was marked by the launch of “an easy-to-use” browser called Netscape, which saw the number of web hosts grow from 2.2 million to more than 94 million, and the number of web users (or “internauts”) worldwide grow to more than 400 million by the year 2000.²⁶ Arguably even more significant was the development of broadband internet access, which “has allowed people to leave their computers on all day instead of intermittently dialing up, thereby affording the opportunity for spontaneous communication.” This advance “fostered not only the development of Web 2.0, where people can communicate collaboratively via the internet, but also the explosive growth of social network sites such as MySpace and Facebook.”²⁷

While social networking may be prominent in media and perhaps the minds of many web “surfers,” commercial applications for the internet are also as significant and developed just as rapidly. As one historian documenting the growth and development of the internet in the United States writes, the internet created, with amazing speed, “a new universe of fast and inexpensive ‘virtual’ applications” that would make commercial transactions “far less costly and/or more convenient than those in the physical world.” As this “new economic space” comprised “simply software constructions,” extremely cost-effective “opportunities to experiment and create novel applications in software and . . . cyberspace” became available.²⁸

Business was increasingly conducted through internet transactions and relationships, in the form of consumer-to-consumer (C2C), business-

26. B. M. KOGUT, *Introduction: The Internet has Borders*, in THE GLOBAL INTERNET ECONOMY 2-3 (MIT Press 2003).

27. Hua Wang & Barry Wellman, *Social Connectivity in America: Changes in Adult Friendship Network Size from 2002 to 2007*, 53(8) AMERICAN BEHAVIORAL SCIENTIST 1149, 1151 (2010).

28. Martin Kenney, *The Growth and Development of the Internet in the United States*, in KOGUT, *supra* note 26, at 83-84.

to-consumer (B2C), and business-to-business (B2B) “e-commerce.” One of the most conspicuous C2C websites is eBay, established in September 1995. By the year 2000, eBay had revenues of \$431 million U.S. dollars. Although the B2B market developed later, it very quickly “outstripped B2C in sales” value. Between July 1998 and July 2000, the number of registered domain addresses ending with “.com,” “.org,” “.net,” and “.edu” had grown in the United States from 1.6 million to 10.12 million. While uptake in the United States outpaced that of the rest of the world, growth outside the United States over the same period was even greater, from around 540,000 to 7.3 million.²⁹ More recently, from 2008 to 2015, internet usage in the Americas more than doubled, as the proportion of people across the continent (including the poorest nations in Central and South America) reporting regular internet access (several times a week and more) rose from 19% to 44%.³⁰

B. *Internet Usage in the United States*

Internet use in the United States has grown exponentially since the U.S. Census Bureau (Bureau) began to monitor internet use in households in 1997. One study reported in 2015 that 98.6% of voting age Americans had regular access to the internet.³¹ This figure is even higher than was last reported by the Bureau, but far less granular. The Bureau’s most recent report on computer and internet use in the United States, issued in May 2013, was based on data collected in July 2011 as part of the Current Population Survey. This data confirms the strong association of higher rates of internet use with educational attainment, steady employment, high incomes, metropolitan locations, and relative youth.

The attainment of higher education qualifications, well-remunerated employment, and urban housing would also appear to be correlated with race and ethnicity, as non-Hispanic White and Asian use of the internet is significantly higher than Hispanic and African American use. Additionally, mobile devices with internet access appear to be bridging the digital divide more effectively than desktop and laptop computers.³² In 2011, 75.6% of all surveyed households in the United States reported

29. *Id.* at 73-74, 94, 100, 104.

30. Jessica M. Brunelle et al., *Internet in the Americas: Who’s Connected?*, AMERICAS QUARTERLY (Apr. 1, 2015), at 72, <http://www.americasquarterly.org/content/internet-americas-whos-connected> [<http://perma.cc/UK69-JRYS>].

31. *Id.*

32. Thom File & Camille Ryan, *Computer and Internet Use in the United States: 2013*, U.S. CENSUS BUREAU (Nov. 2014), <https://www.census.gov/history/pdf/2013computeruse.pdf> [<http://perma.cc/REM8-TALF>].

having a computer, compared with only 8.2% in 1984, and 61.8% in 2003. Similarly, 71.7% of all households reported accessing the internet, compared with 18% in 1997, and 54.7% in 2003.³³

Internet use is highest among Asian Americans (82.7% of households), followed by non-Hispanic White households (76.2%), and then, some way back, Hispanic households (58.3%) and African American households (56.9%).³⁴ These disparities, while significant, have reduced by about half since 2000, when non-Hispanic White households were twice as likely as African American households to report internet use (46.1% compared with 23.6%). The same disparity in 2011 saw non-Hispanic Whites 1.3 times more likely than African Americans to report internet use in the home.³⁵

Relative youth is also strongly associated with internet use. Americans aged 18-34 years and 35-44 years were statistically identically high users, with 82% and 81.4% respectively reporting internet use. Americans aged 45-64 were also high users, with 72.4% reporting use. Just over 60% of children aged 3-17 reported internet use, while the 65 and older age bracket recorded internet use rates of 45.5%. Those individuals over 55 were more significant internet users than their fellow older citizens, reporting usage rates of 61.7%.³⁶

Educational attainment is strongly associated with internet use. Just over a third (36.9%) of Americans without high school qualifications reported internet use in 2011, up from 11.7% in 2000. A far higher proportion of Americans with a high school degree (61.2%) reported internet use, up from 29.9% in 2000. More than 77% of Americans with some college education reported having used the internet (up from 49% in 2000), and almost 90% of Americans with a Bachelors or higher degree had used the internet (up from 66% in 2000).³⁷

Household income is another important determinant of internet access. Whereas around 50% of households with an income of less than \$25,000 per annum reported using the internet, 63.7% of households earning \$25,000-\$49,999 used it. These rates rose to near 80% for households earning between \$50,000-\$99,999, and 86.9% and 86.2%, respectively, for households earning between \$100,000-\$149,999 and more than \$150,000.³⁸

33. *Id.* at 1.

34. *Id.* at 2.

35. *Id.* at 3.

36. *Id.* at 3, 5.

37. *Id.* at 4.

38. *Id.* at 5.

Educational attainment and household income are strongly associated with employment status, and while 81.6% of employed Americans reported internet use, and even 75.6% of unemployed citizens reported such use, just 58.8% of those not in the labor force reported internet use.³⁹

The “connectivity continuum” is used by the Bureau to measure the frequency and location of citizens’ access to the internet. At the highest end of the spectrum, 27% of Americans reported having internet access both inside and outside their home, from multiple devices. At the lowest end, 14.4% reported having a computer at home but no internet, and 15.9% had neither a computer nor internet access.⁴⁰ Perhaps surprisingly, although internet use was lower in the South than the Northeast, Midwest, and West, it was not appreciably so; around 67% compared with around 71%.⁴¹ However, these figures mask considerable variations within regions, where Southern states, predictably, are among the least highly-connected. States with large percentages of no connectivity included Mississippi (26.8%), New Mexico (21.7%), South Carolina (21.6%), West Virginia (21.5%), Tennessee (21.2%), Arkansas (20.8%), and Texas (20.5%).⁴²

In 2011, for the first time, the Bureau began to survey Americans’ use of mobile technology for internet access. It found that across the nation, almost half of Americans aged 15 years and older were using a smartphone which included access to the internet. Race and ethnicity (and by implication, education, income, and employment) were far less significant factors in smartphone use. Indeed, “smartphones appear to be leveling the Internet use disparities traditionally present for race and ethnicity groups.” Whereas 27 percentage points separated highest and lowest reported internet usage rates among Asians and Hispanics (approximately 78% compared with 51%) when desktop or laptop computers were monitored, this gap fell to 18 percentage points among the same groups when mobile devices were monitored. Further, usage rates in both ethnic groups were considerably higher when mobile devices were monitored (83% and 65.5%, respectively). Citizens living in metropolitan areas were also significantly more likely to connect to the internet with mobile devices (50% compared with 39%).⁴³

39. *Id.*

40. *Id.* at 6.

41. *Id.*

42. *Id.* at 9.

43. *Id.* at 10-12.

C. *Internet Usage in Australia*

The history and current trajectory of internet usage rates in Australia mirrors that of other advanced global economies. Rates of use have increased dramatically since the mid-1990s, to the point where broadband connection in the workplace and the home, as well as to mobile communication devices, is almost universal. The value of business conducted via the internet has also grown exponentially.

According to the Australian Bureau of Statistics' (ABS) periodic measure of "Household Use of Information Technology," 7.7 million (or 86%) of households in Australia had internet access in 2014-2015. By comparison, 83% of households were connected in 2012-2013, about 66% in 2007-2008, 56% in 2004-2005, and only 7.5% (or 300,000) in 1996. Whereas in 1996, 4.4 million households did not own computing facilities, there were 1.3 million households in 2014-2015 that did not have internet access. The use of broadband in households accessing the internet has also become ubiquitous. Whereas broadband use was not even measured in 1996, the ABS reported that by 2008-2009, 62% of all Australian households, and 86% of households with internet access, had broadband. In 2014-2015, the ABS no longer measured this take-up on account of its universality.⁴⁴ Internet usage is strongly correlated with age (in this case, relative youth), educational attainment, higher income levels, gainful employment (particularly in white collar jobs), and personal commercial activity.⁴⁵

In 2014-2015, 96% of Australians educated to a bachelor degree level were internet users, while only 77% educated to a secondary schooling certificate or lower level used the internet. Similarly, whereas 93% of employed Australians were internet users, only 70% of unemployed Australians regularly used the internet. Additionally, 97% of the "highest equivalised household income quintile" used the internet, compared with just "67% of those in the lowest income quintile."⁴⁶

44. Series 8146.0 - Household Use of Information Technology Australia, 2014-15, AUSTRALIAN BUREAU OF STATISTICS (Feb. 18, 2016), <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0> [http://perma.cc/5SZS-Z6WJ] [hereinafter Series 8146.0]; Series 8146.0 at 2008-09 (Dec. 16, 2009), <http://abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8146.0Main+Features12008-09> [http://perma.cc/QH35-HRX2]; Series 8146.0 at 2004-05 (Dec. 15, 2005), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/D299544DB0CA7EF0CA2572440077F833> [http://perma.cc/4FMJ-2WR8]; Series 8146.0 at 1996 (Nov. 14, 1997), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/56738B8C47A766CFCA25722E001BFE4B?opendocument> [http://perma.cc/W6JU-KERY].

45. This is important to note in the context of the arguments we make in this Article for improving internet access for the majority of prisoners in Australian prisons.

46. Series 8146.0, *supra* note 44, at 2014-15 (Feb. 18, 2016),

The length of time connected Australians are spending on the internet is also rising and has been strongly associated with leisure pursuits, as well as essential personal, financial, banking, and employment activity. In 2014-2015, the mean number of hours spent online for personal reasons was 10 hours in an average week. For Australians aged 15-17 years, the mean number was much higher, at 18 hours per week. Nearly three-quarters of Australians (72%) reported using the internet for banking and social networking purposes, while 60% reported purchasing goods, services, and entertainment through the internet. Of the near 12 million people aged 15 years or more who reported being in some form of employment in 2014-2015, 44% accessed the internet for home-based work. Sixteen percent reported regularly performing home-based work for an employer, and the same percentage of people owning their own business also reported regularly performing home-based work using the internet. Among the highest equivalized income quintile, 62% reported accessing the internet for home-based work, as compared with 32% in the lowest quintile. In 2014-2015, the reasons Australians gave for not accessing the internet at home included a lack of confidence or knowledge (22%) and the costs (16%). Internet use for home-based work activity was also higher in metropolitan as opposed to inner and outer regional locations, yet in country areas more than a third of respondents reported regularly using the internet at home for work purposes.⁴⁷ Thus, internet use is demonstrably and increasingly important to managing employment obligations, personal financial affairs, and also leisure needs for all people in contemporary Australia.

The importance of the internet to commercial activity in Australia is no less significant. Internet access among businesses is almost ubiquitous,

<http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0> [http://perma.cc/S3MH-AYQD]; Series 8146.0, *supra* note 44, at 2008-09 (Dec. 16, 2009), <http://abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8146.0Main+Features12008-09> [http://perma.cc/8PPE-BVVG]; Series 8146.0, *supra* note 44, at 2004-05 (Dec. 15, 2005), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/D299544DB0CA7EF0CA2572440077F833> [http://perma.cc/JQ8C-CS59]; Series 8146.0, *supra* note 44, at 1996 (Nov. 14, 1997), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/56738B8C47A766CFCA25722E001BFE4B?opendocument> [http://perma.cc/PJ7Y-NS4T].

47. Series 8146.0, *supra* note 44, at 2014-15 (Feb. 18, 2016), <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0> [http://perma.cc/2TBV-NTTC]; Series 8146.0, *supra* note 44, at 2008-09 (Dec. 16, 2009), <http://abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8146.0Main+Features12008-09> [http://perma.cc/FE9B-LXNK]; Series 8146.0, *supra* note 44, at 2004-05 (Dec. 15, 2005), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/D299544DB0CA7EF0CA2572440077F833> [http://perma.cc/4Z8Q-JBTN]; Series 8146.0, *supra* note 44, at 1996 (Nov. 14, 1997), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/56738B8C47A766CFCA25722E001BFE4B?opendocument> [http://perma.cc/XS26-6RPF].

standing at virtually 95% for all businesses in 2013-2014, up from 92% in 2011-2012. Income earned by Australian businesses through internet orders rose from \$237.1 billion Australian Dollars (AUD) in 2011-2012 to \$266.8 billion AUD in 2013-2014, amounting to 4% and 8.3% year on year increases during this time. A strong web presence, defined as possession of a devoted website or homepage, as opposed to an online listing, is also increasingly important to business. Nearly 60% of businesses employing 5-19 persons had such a presence in 2013-2014, while around 81% and 97% respectively of businesses employing 20-199 and 200 or more persons also maintained websites and homepages. Manufacturing, information and communication technology, telecommunications, media, and wholesale trade businesses all received more than 50% of their customers through the internet. A social media presence was also established by a majority of businesses employing 20 or more persons (54.3% for 20-199 employees and 66% for businesses employing more than 200 persons).⁴⁸

The internet is increasingly accessed by people worldwide through personal and even hand-held devices. In 2008-2009, ABS reported that around a third of Australian children aged 5 to 14 years had access to their own mobile phones. At the same time, around 80% of these 2.7 million children used the internet to participate in leisure and cultural activity. These rates have undoubtedly increased significantly in the subsequent eight or nine years. Similarly, in Africa, where a majority of people are aged less than 25 years, mobile phones are ubiquitous and are, and will continue to be, the primary tool for internet access.⁴⁹ This fact has important implications for the debate about whether prisoners should be provided internet access, particularly in the context of what constitutes adequate preparation for reintegration into the community and workforce in contemporary advanced economies such as the United States and Australia.

48. Series 8129.0 - Business Use of Information Technology, 2013-14, AUSTRALIAN BUREAU OF STATISTICS (July 16, 2015), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/8129.0Main%20Features32013-14?opendocument&tabname=Summary&prodno=8129.0&issue=2013-14> [<http://perma.cc/H6BA-W9VB>].

49. Series 8146.0, *supra* note 44, at 2008-09 (Dec. 16, 2009), <http://abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8146.0Main+Features12008-09> [<http://perma.cc/Y2QE-5H94>]; Richard Seymour, *Africa is the Most Innovative, Says Google Chief*, AFRICAN BUSINESS MAGAZINE 38-40 (Mar. 20, 2013), <http://africanbusinessmagazine.com/sectors/technology/africa-is-the-most-innovative-says-google-chief/> [<http://perma.cc/VU7W-G6QW>].

D. *The Centrality of the Internet to Contemporary Life*

Like previous technological advances, the rise of the internet induced “panic about [a] decline of social connectivity.” However, there is in fact abundant, consistent, and systematic evidence that internet use increases social contact with friends and family. The “addition of the Internet and mobile phone communication” to more traditional forms of contact has led to “more overall communication between friends and relatives” because “computer-mediated communication has become cheaper, quicker, and much more efficient than visiting, telephoning, or writing letters the old-fashioned pen-to-paper way.”⁵⁰

Access to the internet is so important to contemporary human flourishing that it has been recognized by the United Nations as a fundamental right and freedom. Access to the internet was a central concern of the Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression provided to the United Nations General Assembly in May 2011. Responding to the Human Rights Council’s request to provide information “on the advantages and challenges of new information and communication technologies, including the internet and mobile technologies, for the exercise of the right to freedom of opinion and expression,”⁵¹ the Rapporteur concluded that the internet is a central integer of the maintenance and protection of internationally-recognized civil and political rights. The Rapporteur emphasized that internet access “has two dimensions: access to online content, without any restrictions except in a few limited cases permitted under international human rights law; and the availability of the necessary infrastructure and information communication technologies, such as cables, modems, computers and software, to access the Internet in the first place.”⁵²

The scale of internet use and its centrality to the conduct of business, research, and leisure activity globally was made clear. The Rapporteur noted data from the International Telecommunication Union, putting the total number of internet users worldwide at over 2 billion. Further, the rate of expansion in internet use was indicated by growth in active users of Facebook, from 150 million to 600 million between 2009 and 2011.⁵³ The internet was recognized by the Rapporteur as being singularly important

50. Wang & Wellman, *supra* note 27, at 1149-50.

51. U.N. GAOR, 17th Sess., (Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression), U.N. Doc. A/HRC/17/27, ¶ 1 (May 16, 2011).

52. *Id.* ¶ 3.

53. *Id.* ¶ 2.

to modern life and communications because it is interactive media, “unlike . . . radio, television and printed publications.” Further, “by enabling individuals to exchange information and ideas instantaneously and inexpensively across national borders, the Internet allows access to information and knowledge that was previously unattainable. This, in turn, contributes to the discovery of the truth and progress of society as a whole.”⁵⁴

The internet has thus become a crucial tool for facilitating the individual exercise of the right to freedom of opinion and expression, “as guaranteed by article 19 of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights.”⁵⁵ The Covenant, in particular, provides that every person has the right to hold opinions without interference, as well as the right to free expression, including the freedom to “seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media [of] choice.”⁵⁶ These rights are to be restricted only in accordance with law and, when necessary, to “respect of the rights or reputations of others” or for “the protection of national security or of public order, or of public health or morals.”⁵⁷ Further, these rights must only be denied when it is “proven necessary and the least restrictive means required to achieve the purported aim ([adhering to the] principles of necessity and proportionality).” It was further noted that any deprivation of these rights must be “neither arbitrary nor discriminatory, and with adequate safeguards against abuse, including the possibility of challenge and remedy against its abusive application.”⁵⁸

The Rapporteur regards the right to freedom of opinion and expressions as a “fundamental right on its own accord” as well “as an ‘enabler’ of other rights, including economic, social and cultural rights, such as the right to education and the right to take part in cultural life and to enjoy the benefits of scientific progress and its applications, as well as civil and political rights.”⁵⁹ It has no doubt that this right encompasses use of and access to the internet, as article 19 was deliberately “drafted with foresight to include and to accommodate future technological

54. *Id.* ¶ 19.

55. *Id.* ¶ 20.

56. *Id.* ¶ 1.

57. *Id.* ¶ 20.

58. *Id.* ¶ 24.

59. *Id.* ¶ 22.

developments through which individuals can exercise their right to freedom of expression.”⁶⁰

Numerous countries have recognized internet access as a fundamental right. In 2000, Estonia declared internet access a basic human right. The “constitutional council of France effectively declared Internet access a fundamental right in 2009,” while the constitutional court of Costa Rica “reached a similar decision in 2010.” Finland passed a decree in 2009 “stating that every Internet connection needs to have a speed of at least one Megabit per second (broadband level).” And a survey conducted by the British Broadcasting Service in 2010 found that 80% of respondents from 26 countries believed that internet access is a fundamental human right.⁶¹

The Rapporteur recognizes that “digital divides also exist along wealth, gender, geographical and social lines within States.” There are few greater digital divides in the United States and Australia than that between the imprisoned and the free population. The importance of this divide will only grow as the internet becomes an ever more “important educational tool,” providing access to “a vast and expanding source of knowledge” and making “previously unaffordable” research and pedagogy available in hitherto untapped areas of global society, including developing states.⁶²

The Millennium Development Goals call upon states to “make available the benefits of new technologies, especially information and communications.”⁶³ Typically, these goals are interpreted as requiring application across, rather than within, states. The situation of prisoners is one illustration of how these goals should be interpreted more frequently as having urgent application through the vertical layers of any given society. Because the internet “has become an indispensable tool for realizing a range of human rights, combating inequality, and accelerating development and human progress, ensuring universal access to the Internet should be a priority for all states”; authorities such as the Rapporteur have called on states to make the internet “widely available, accessible and affordable to all segments of the population,” and to include “Internet literacy skills in school curricula and support similar learning modules outside of schools.”⁶⁴

60. *Id.* ¶ 21.

61. *Id.* ¶ 65.

62. *Id.* ¶ 17.

63. *Id.*

64. *Id.* ¶ 85.

It follows that the internet is an integral and irreplaceable tool for most people which is used to facilitate and enhance all aspects of their lives, especially their social, business, and work activities. Not surprisingly then, people report anxiety, stress, and discomfort if they are denied access to the internet. Studies show that this anxiety is not inconsiderable;⁶⁵ one study showed that many people would prefer to have no heating and water as opposed to losing access to the internet.⁶⁶

The pain that stems from internet denial thus comes in two broad forms. First, there is the stress and anxiety that is often associated with not having connectivity. Then there is the loss of the concrete instrumental opportunities, such as reduced contact with friends and family, lost business opportunities, and reduced work effectiveness. Cumulatively, this is a considerable hardship.

III. THE INTERNET AND CRIMINAL SANCTIONS

This Article makes two key proposals about criminal sentences and internet use. The first is that internet deprivation should be developed as a discrete sentencing sanction; the second is that prisoners should have access to the internet. The third (default) proposal, if the second proposal is not implemented, is that deprivation of the internet should result in shorter prison terms.⁶⁷ Prior to discussing these proposals at greater length in the Parts below, we explain the existing orthodoxy so far as these proposals are concerned. To put this into context, we provide a brief overview of sentencing law and practice in the United States and Australia.

A. *Sentencing Law in the United States and Australia*

In the United States, the federal government and each state have their own sentencing system.⁶⁸ However, several important commonalities are shared by most jurisdictions. The main objectives of the sentencing

65. *A Day Without Media*, ICMIPA, WORD PRESS (2016), <https://withoutmedia.wordpress.com/> [<http://perma.cc/6U22-QYKW>].

66. The study is reported in *Internet 'More Important' Than Heating Or Water, Study Says*, HUFFINGTON POST (June 10, 2013), http://www.huffingtonpost.co.uk/2013/04/10/internet-more-important-than-heating_n_3050505.html [<http://perma.cc/NL2W-J398>].

67. For the sake of clarity, the first key point—internet deprivation as a discrete sanction—is discussed in Section IV. The second proposal—prisoners should have unlimited access to internet—is in Section V. The third proposal—if prisoners do not get unlimited access, then sentences should be shortened—is in Section VI.

68. See *United States v. Morrison*, 529 U.S. 598, 610–11 (2000) (explaining that sentencing, and more generally, the criminal law, in the United States is mainly the province of states).

system⁶⁹ are general deterrence,⁷⁰ specific deterrence,⁷¹ community protection (also known as incapacitation),⁷² and rehabilitation.⁷³ These aims often conflict and are not ranked—however, as a practical matter, community protection, pursued through incarceration, has been the cardinal objective over the past few decades.

There are now almost 2 million Americans in jail or prison. This equates to over 700 per 100,000 of the adult population.⁷⁴ While a slight decrease in prison numbers was observed between the years 2010–2012 (approximately 3%), the overall prison population has typically shown a steady increase over the past 40 years and has more than doubled over the past two decades. More recently, incarceration numbers increased again in 2013⁷⁵ before slightly declining in 2014.⁷⁶

The central cause of increased prison numbers was a move to harsher penalties which were increasingly implemented through wide-ranging prescriptive and harsh sentencing laws, which limited curtailed judicial discretion. As noted by Berry:

Prior to 1984, federal judges possessed discretion that was virtually “unfettered” in determining sentences, guided only by broad sentence ranges provided by federal criminal statutes. The Sentencing Reform Act of 1984 . . . moved the sentencing regime almost completely to the

69. UNITED STATES SENTENCING COMM’N, GUIDELINES MANUAL, § 3E1.1, 2 (Nov. 2015), <http://www.ussc.gov/sites/default/files/pdf/guidelines-manual/2015/GLMFull.pdf> [<http://perma.cc/JD37-H7CM>].

70. This is the theory that there is a connection between the crime rate and sentence severity. See MIRKO BAGARIC & RICHARD EDNEY, AUSTRALIAN SENTENCING (3d ed. 2016).

71. This is the theory that harsher sanctions will dissuade offenders from reoffending. See *id.*

72. This is the theory that confining offenders will protect the community. See *id.*

73. This is the theory that the sentencing system can elicit positive attitudinal reform in offenders, which will reduce the rate of reoffending. See *id.*

74. NAT’L RESEARCH COUNCIL, THE GROWTH OF INCARCERATION IN THE UNITED STATES: EXPLORING THE CAUSES AND CONSEQUENCES 33 (Jeremy Travis et al. eds., 2014).

75. There was an increase of 4,300 prisoners in 2013, compared with 2012. While the federal prison population decreased for the first time since 1980, it was more than offset by an increase in the state prison population (the first increase since 2009). See E. Ann Carson, *Prisoners in 2013*, BUREAU OF JUSTICE STATISTICS (Sept. 30, 2014), <http://www.bjs.gov/content/pub/pdf/p13.pdf> [<http://perma.cc/7ZZ8-89UR>].

76. In 2014, there was a slight decrease in federal and state prison numbers; however, this was partially offset by an increase in local jail numbers. See Matthew Friedman, *The U.S. Prison Population Is Down (A Little)*, BRENNAN CENTER FOR JUSTICE (Oct. 29, 2015), <http://www.brennancenter.org/blog/us-prison-population-down-little> [<http://perma.cc/2DZG-6HA5>]. State and federal prison numbers decreased by 15,400 people from December 31, 2013 to December 31, 2014. *Id.* However, county and city jail numbers increased by 13,384 inmates from mid-year 2013 to mid-year 2014. *Id.* While these time periods are not aligned, they are indicative of a larger trend; the increasing jail numbers are eclipsing the progress made by decreasing prison numbers.

other extreme, implementing a system of mandatory guidelines that severely limited the discretion of the sentencing judge.⁷⁷

Fixed or presumptive penalties⁷⁸ now operate to varying degrees in the United States.⁷⁹ Typically, prescribed penalties are set out in grids which use criminal history score⁸⁰ and offense seriousness to calculate the appropriate penalty. As noted by Tonry, prescribed penalties have been an instrumental aspect of operationalizing a tough-on-crime agenda:

Anyone who works in or has observed the American criminal justice system over time can repeat the litany of tough-on-crime sentencing laws enacted in the 1980s and the first half of the 1990s: mandatory minimum sentence laws (all 50 states), three-strikes laws (26 states), LWOP [life without parole] laws (49 states), and truth-in-sentencing laws (28 states), in some places augmented by equally severe “career criminal,” “dangerous offender,” and “sexual predator” laws. These laws, because they required sentences of historically unprecedented lengths for broad categories of offenses and offenders, are the primary causes of contemporary levels of imprisonment.⁸¹

Sentencing in each of the nine Australian jurisdictions—the six states, the Northern Territory, the Australian Capital Territory, and the Federal jurisdiction—is governed by a combination of legislation and the common law.⁸² Sentencing laws differ in each of these jurisdictions, but as is the case in the United States, the main sentencing objectives are the same throughout Australia.⁸³ The main aims, as in the United States, are general deterrence, specific deterrence, community protection, and rehabilitation.⁸⁴

77. William W. Berry III, *Discretion Without Guidance: The Need to Give Meaning to § 3553 After Booker and its Progeny*, 40 CONN. L. REV. 631, 633 (2008).

78. For the purposes of clarity, these both come under the terminology of fixed or standard penalties in this Article.

79. They are also one of the key distinguishing aspects of the United States’ sentencing system compared to that of Australia’s (and most other sentencing systems in the world). See UNIV. OF S.F. SCH. OF LAW CTR. FOR LAW AND GLOBAL JUSTICE, CRUEL AND UNUSUAL: U.S. SENTENCING PRACTICES IN A GLOBAL CONTEXT 46-47 (2012) (noting that 137 of 168 surveyed countries had some form of minimum penalties but none was as wide-ranging or severe as in the United States); see also Michael Tonry, *Remodeling American Sentencing: A Ten-Step Blueprint for Moving Past Mass Incarceration*, 13 CRIMINOLOGY & PUB. POL’Y 503, 516 (2014).

80. See THE GROWTH OF INCARCERATION IN THE UNITED STATES, *supra* note 74, at 325.

81. See Tonry, *supra* note 79, at 516. For a list of jurisdictions in the United States which use guideline sentencing, see ROBINA INST., SENTENCING GUIDELINES RESOURCE CENTER, UNIVERSITY OF MINNESOTA, <http://sentencing.umn.edu/> [<http://perma.cc/WD4T-7SXE>].

82. BAGARIC & EDNEY, *supra* note 70, at 4–5.

83. *Id.*

84. *Id.*

A key point of difference with the Australian system compared to the sentencing system in the United States is that the sentencing decision-making process involves a considerable degree of discretion.⁸⁵ Presumptive penalties for serious offenses in Australia are not commonplace.⁸⁶ All offenses have a maximum penalty, and sentencing courts can impose any sanction which does not exceed the maximum. As a matter of practice, however, a general range or tariff applies for most offense types.⁸⁷ This tariff is not a strict fetter on the sentencing discretion, and judges are free to sentence outside this range.⁸⁸ The largely unfettered discretionary nature of Australian sentencing law is similar to the process that existed in the United States approximately 50 years ago, which led Justice Marv Frankel to describe the system as “lawless.”⁸⁹ Similar observations were made by the United States Supreme Court in *Mistretta v. United States*,⁹⁰ where indeterminate sentencing was criticized for leading to “[s]hameful consequences [in the form of] a great variation among sentences imposed by different judges upon similarly situated offenders [and] uncertainty as to the time the offender would spend in prison.”⁹¹

The incarceration rate in Australia is slightly over 200 prisoners per 100,000 of the adult population.⁹² This is small compared to the United States, but high by international levels.⁹³ Moreover, the incarceration rate is rapidly increasing. In 1995, the incarceration rate was 66 per 100,000. There has thus been a tripling of the imprisonment rate over the last three decades—an unprecedented occurrence in Australian history.⁹⁴

The United States and Australia employ a number of sanctions against prisoners. The United States is only one of two developed

85. *Id.*

86. *Id.*

87. *Id.*

88. *Hili v The Queen* (2010) 242 CLR 520, 554 (Austl.).

89. Marv E. Frankel, *Criminal Sentences: Law without Order* 8 (1972). For a critique of Frankel’s impact, see Lynn Adelman & Jon Dietrich, *Marvin Frankel’s Mistakes and the Need to Rethink Federal Sentencing*, 13 *Berkeley J. Crim. L.* 239 (2008).

90. *Mistretta v. United States*, 488 U.S. 361 (1989).

91. *Id.* at 366.

92. 4512.0 - CORRECTIVE SERVICES, AUSTRALIA, AUSTRALIAN BUREAU OF STATISTICS (June 8, 2017), <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4512.0> [<http://perma.cc/8HH6-ECZE>].

93. It is approximately three times higher than most Scandinavian countries, for example: see ICPR, *WORLD PRISON POPULATION LIST* (11th ed. 2015).

94. It took nearly 50 years for the rate to go from 50 per 100,000 (in 1940) to 100 per 100,000 (in 1998). *Crime in Twentieth Century Australia*, AUSTRALIAN BUREAU OF STATISTICS (Jan. 25, 2001), <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4524A092E30E4486CA2569DE00256331> [<http://perma.cc/KF4N-W49X>].

countries that has the death penalty.⁹⁵ But apart from this, as is discussed below, the type of sanctions that are available in the United States and Australia are similar.

B. *The Internet Sanction*

We propose here a sanction for the deprivation of the internet as a separate option in the criminal sentencing process, both in the United States and Australia. Presently, no jurisdiction utilizes internet deprivation as a criminal sanction. Moreover, there is no proposal for such a sanction to be developed. The novelty of the proposal is not, however, a basis for rejecting the proposal. As noted above, the sentencing system is the one area of human activity that has remained largely impervious to advances in technology and the proposal to develop an internet prohibition sanction is consistent with other existing criminal sanctions. Further, as discussed below, it is only in recent years that technological capabilities have been developed which effectively and efficiently enable authorities to disable individuals from internet access.

C. *Prisoners Have Virtually No Access to the Internet*

1. Prisoners and the Internet in the United States

The second major proposal in this Article, to provide internet access to prisoners, has, to a very limited extent, been trialed in prisons in both the United States and Australia. However, none of the existing trials or practices are anywhere near as expansive as suggested in this Article.

The general position regarding prisoner access to the internet is that it is totally prohibited. There are some minor exceptions to this general prohibition; computers are commonly used in prisons by inmates, however, access to the internet and internet-based instruction is very limited in the United States. The RAND Corporation recently undertook an assessment of the internet technologies in the criminal justice system, part of which included a survey of the availability of the internet and information and computer technologies (ICT) to prisoners. Thirty states

95. The other is Japan. *Abolitionist and Retentionist Countries*, DEATH PENALTY INFO. CTR. (Dec. 31, 2015), <http://www.deathpenaltyinfo.org/abolitionist-and-retentionist-countries> [http://perma.cc/NUD7-GWMT]. Thirty-one states still have the death penalty. *States With and Without Death Penalty*, DEATH PENALTY INFO. CTR. (Dec. 31, 2016), <http://www.deathpenaltyinfo.org/states-and-without-death-penalty> [http://perma.cc/7B43-J8BB]. Since 1976, there have been 1,419 executions in the United States. *Executions by Year Since 1976*, DEATH PENALTY INFO. CTR. (Oct. 30, 2015), <http://www.deathpenaltyinfo.org/executions-year> [http://perma.cc/EJL4-94UH]. Note that the federal government also still has the death penalty.

in America informed RAND that only teachers and instructors had access to live internet technology, while a further 26 states reported that inmate students lacked access to any internet technology.⁹⁶ Sixteen states provided students with access to simulated internet programs, and just “a few” states reported using “one-way or interactive video/satellite instruction.”⁹⁷ The primary inhibitor of greater use of ICT in prison educational settings remains concern about security breaches. Other significant inhibitors include insufficient funds, as well as staff capacity to purchase, implement, maintain, and monitor advanced ICT.⁹⁸

The RAND Corporation established that while most states provide prisoners with some access to desktop and laptop computers, only a quarter of responding states reported that one or more of their prisons provided access to tablet devices. They also have very low internet use. More than half the states use a Local Area Network (LAN), that is, a “computer network that links computing devices over a relatively small geographic area, such as a home, office, or group of buildings,” which uses “connectivity technologies, such as an Ethernet or Token Ring.” Eleven states’ prisons were in a Wide Area Network (WAN). As the term suggests, WANs spread over broad distances and connect geographically dispersed LANs with a router. Typically, WANs use “connectivity technologies, such as ATM, Frame Relay, and X.24.” While the internet is actually the world’s largest WAN, WAN-enabled prisons do not use it. Finally, a handful of states permit their inmates—at least in one or more prisons—restricted internet access. More than 40% of states reported using simulated internet programs in one or more of their prisons, and 26 states gave some instructors access to live internet technology in prison classrooms. However, only a few states use “interactive or one-way internet-based, video, or satellite instruction.”⁹⁹

In the United States, there are three ways in which ICT is used for prisoners, all of which are laborious and expensive in terms of time, staff costs, and infrastructure. The first service method is an “isolated local server.” Prisons using these servers transfer internet content to an internal LAN and make documents available to anyone with access to the offline

96. Lois M. Davis et al., *How Effective is Correctional Education, and Where Do We Go from Here? The Results of a Comprehensive Evaluation*, RAND CORPORATION, 69 (2014), <https://www.bja.gov/publications/rand-howeffectiveiscorrectionaleducation.pdf> [<http://perma.cc/9XN4-BDQ9>].

97. *Id.* at 79.

98. Michelle Tolbert et al., *Educational Technology in Corrections 2015*, U.S. DEP’T OF EDUC.: OFFICE OF CAREER, TECHNICAL AND ADULT EDUC., 1 (2015), <https://www.edpubs.gov/document/ed005580p.pdf> [<http://perma.cc/XQC8-7HZB>].

99. *Id.* at 5.

database. This is the most secure way to provide internet content to prisoners, short of banning all access to any internet content. It requires frequent uploading of content and does not provide real-time access to the internet, student outcome data, or educational instruction. The second service method is the “point-to-point secure line.” This comprises a virtual circuit setup between a prison and its ICT vendor. Internet content is streamed into the prison through the vendor’s server. It provides real-time access and a high level of security, but vendor’s fees can make this delivery method expensive. The third method is restricted internet connection. Prisons with these connections use routers and firewalls to permit preapproved (or “whitelisted”) internet content through the system. These systems require all nonessential software programs and utilities to be removed from computers, as well as the whitelisting of all content. Vendor fees also make this delivery service expensive. However, it does provide real-time access and a high level of security, if arguably not as high as the other two methods.¹⁰⁰

While prisoners have virtually no access to the internet and ICT for education and entertainment purposes, ICT is widely used in other areas of prison administration. Advanced technology is widely integrated into other areas of correctional administration, such as facilitating family communications via email and video conferencing, restricted online banking for prisoners, video attendance by prisoners at court hearings, and in the provision of “telemedicine.”¹⁰¹ Indeed, the use of ICT in these areas of prison administration is even influencing some authorities to restrict visiting opportunities for families of inmates to video conferencing, for which they are charged exorbitant rates and which are “funneled” to the private companies that manufacture and service this technology.¹⁰²

Security concerns have to date made the provision of ICT and internet to prisoners both cumbersome and far less effective than they otherwise might be. Case studies of prisons using isolated local servers show that significant time and effort must be spent by authorized educators in identifying suitable content, and then whitelisting content on a case-by-case basis. Considerable time is also spent obtaining permission from publishers to download web pages. Further, those prisons that provide access to resources in classrooms only substantially limit

100. *Id.* at 9.

101. *Id.* at 1, 3.

102. Max Lewontin, *Why Jails’ Embrace of Video Visiting Technology can Harm Inmates, Families*, CHRISTIAN SCIENCE MONITOR (Sept. 25, 2015), <https://www.csmonitor.com/Technology/2015/0925/Why-jails-embrace-of-video-visiting-technology-can-harm-inmates-families> [<http://perma.cc/A5FG-K4UX>].

educational opportunities for individual inmates. Prisons using point-to-point secure line systems have to install endpoint security software in every computer lab, but security updates interfere with access to online course content. Some prisons using restricted internet connections have provided tablets to students in secure facilities. This is important, because jails often have no room for computer labs, which in any case require significant monitoring.¹⁰³

Nevertheless, the United States Department of Education (D.O.E.) reports that prisons are increasingly, if “cautiously, adopting advanced technologies”¹⁰⁴ to:

- develop prisoners’ computer and digital literacy skills, with computer-assisted instruction, accessing college courses, and preparation for employment;
- access online course assessment;
- expand professional development resources for prison-based education instructors and equip them with technology-based instructional tools (such as open educational resources);
- support education pathways through data sharing and aligning prison-based education and training programs with programs offered to the general community; and
- provide more prisoners with knowledge and skills to obtain living wage employment.¹⁰⁵

Most recently, the issue of prisoners and the use of internet for social purposes has attracted considerable publicity in the United States. In recent years some prisoners have used friends and family outside of prison to maintain social media pages, such as Facebook, for them.¹⁰⁶ This was directly stopped in April 2016 in Texas when the Department of Criminal Justice implemented a new policy that prisoners in Texas “can no longer maintain a social media profile through a third party ‘for the purposes of soliciting, updating, or engaging others.’”¹⁰⁷

103. Tolbert et al., *supra* note 98, at 12, 16.

104. *Id.* at 2.

105. *Id.*

106. Maurice Chammah, *Should Prisoners Be Allowed to Have Facebook Pages?*, THE MARSHALL PROJECT (Apr. 14, 2016, 10:00 PM), <https://www.themarshallproject.org/2016/04/14/should-prisoners-be-allowed-to-have-facebook-pages#.deTnggdDl> [<http://perma.cc/57PY-DMMC>].

107. *Id.* (internal citation omitted). The report notes:

In 2013, Alabama lawmakers decided that helping an inmate post on social media should result in a \$500 fine. In 2014, New Mexico banned inmates from posting through third parties online, and Indiana put an inmate in solitary confinement after his sister posted a video of him in prison on Facebook. In 2015, the Electronic Frontier Foundation, an advocacy group, discovered that South Carolina prisons had doled out more than a decade

2. Prisoners and the Internet in Australia

In Australia, prisoners are generally denied access to the internet, with one minor exception which applies to only a small number of prisoners for limited purposes. The most extensive internet access provided to prisoners currently in Australia occurs in prisons that use the *PrisonPC: Secure Prisoner Interactive Learning System*, a product of the firm Cyber IT Solutions. Described by the D.O.E. as a “hybrid model of content caching and white-listed site access management,” PrisonPC provides prisoners with in-cell desktop computing capacity. The basis of the system—and its particular claims to security and flexibility—is centralized control of all programs and applications, coupled with the remote roll out of these same programs and applications. While prisoners are provided with desktop computers in their cells, they are unable to access the underlying operating system or application software, or to save material on their personal PCs. The system is locked down and centrally managed, permitting custodial staff to manage all desktop PCs in the prison from a single location.¹⁰⁸

According to Cyber IT Solutions, PrisonPC makes desktop computers impervious to permanent and unauthorized changes. Each PC is customized to permit use only of those applications that custodial staff has approved. PCs are not equipped with a hard drive, and because the software that prisoners use is not installed on their computers, they are unable to manipulate programs or hide documents. When the system manager wants to update a given application, they are able to provide access only to those prisoners who have been approved to use it, almost instantly. PrisonPC provides restricted internet access to prisoners, permitting them to view a limited whitelist of websites. The system periodically checks these sites to identify altered content, and changed sites are immediately removed from the whitelist and quarantined for review. Similarly, a secure email system permits prisoners to communicate only with approved addressees. Each email passes through a whitelist and keyword filter, allowing custodial staff to review messages prior to delivery, and to access archived emails at will.¹⁰⁹

Cyber IT claims a number of major advantages for the system. Prison administrators are spared the burden of installing and administering

of solitary confinement to at least 16 prisoners who were using social media.

108. Cyber IT Solutions, *Secure Server and Desktop Solution: Optimal physical, software, device and media security for correctional facilities*, PRISONPC, http://www.prisonpc.com/documents/CyberITSolutions_PrisonPC-small.pdf [http://perma.cc/3SQ2-FT66].

109. *Id.*

software, and then having to monitor the use of each individual PC. Further, PCs do not have to be separately audited, and prisoners are deprived of opportunities to store contraband in PC ports. Custodial staff does not require high-level ICT skills to administer the system and are spared the physical process of having to inspect inmates' cells for security breaches. Prisoners also benefit from having access to their own personal file storage on the server, which can be accessed only by them and authorized staff who can monitor their files. Prisoners are further able to access designated websites and to communicate with approved persons in order to pursue studies, their legal cases, communication with family and friends, and approved entertainment options.¹¹⁰ PrisonPC provides ICT services to several Australian prisons, and hence promises to be a useful prototype for providing internet access into prisons.

3. Prisoners and the Internet in Scandinavia

This Article focuses on sentencing law and prisoner access to the internet in the United States and Australia. However, as a possible contrast, it is potentially illuminating to ascertain the extent to which prisoners have access to the internet in Scandinavian countries, given that prison conditions in these countries are generally recognized as the most progressive and least punitive in the world.¹¹¹

Lifelong learning is regarded as essential to social integration and an important responsibility of the Member States of the European Union (EU). The importance of education in prisons has been acknowledged in the Council of Europe Recommendation on Education in Prison (2011), which stated that “education for prisoners should be like the education provided for similar age-groups in the outside world, and the range of learning opportunities should be as wide as possible.”¹¹² Nevertheless, on average, fewer than 25% of inmates in European prisons participate in lifelong learning activity. While the implementation of improved pedagogical instruction, including through the use of ICT, is acknowledged by member governments to be essential to improving these participation rates, security concerns and limited funding restrict prisoner access to ICT and the internet in Member States just as they do in Australia and the United States.¹¹³

110. *Id.*

111. *See infra* Part IV.

112. GHK Consulting, *Prison Education and Training in Europe*, EUROPEAN COMN'N, 12 (May 2013), http://ec.europa.eu/dgs/education_culture/repository/education/library/study/2013/prison_en.pdf [<http://perma.cc/6GR7-VKC9>].

113. Angelica Monteiro et al., *Lifelong Learning Through E-Learning in European Prisons*:

The typical European inmate resembles that of the Australian or American inmate: they have restricted or no access to ICT and the internet; they are very likely to have low level digital skills; they are likely to have little motivation to engage in education and training while they are incarcerated; and the preparedness of authorities to provide prisoners with access to ICT is compromised by security concerns.¹¹⁴

ICT-facilitated, or “e-learning,” has been implemented in European prisons since the mid-2000s. The EU funded seven e-learning campaigns in prison projects from 2005-2009. Each of these projects involved three to eight nations, with the United Kingdom participating in five, and Romania, Norway, and Denmark each participating in four. Several nations, including the United Kingdom, Germany, Austria, and Norway also run permanent e-learning prison programs.¹¹⁵

Security concerns have limited the functionality of all of these programs and e-learning in prisons, and therefore “corresponds mostly to a controlled access to the internet or intranet resources”—i.e., whitelisting. The pedagogical quality is largely dependent on the digital capacity of the trainer or teacher and the tools with which they and their prisoner-students are working. These observations pertain equally to Norway’s *Internet-for-Inmates* system, the United Kingdom’s Virtual Campus, and the *Elis* learning platform used in Germany and Austria.¹¹⁶

For example, while 4,000 Norwegian prisoners—equal to about one third of all inmates—are engaged in formal education and training, and while the use of digital tools has been integrated as a stand-alone subject in Norwegian curriculum, 70% to 80% of the inmates in Norway are serving time in high security prisons. This means that security concerns are paramount, and internet access and pedagogy have suffered. Historically, e-learning has been restricted to classrooms where common workstations have been located. The pedagogical and technical use of e-learning was not standardized, and no teachers in the prison system were employees of that system. Further, prisoners were not directly connected to the external providers of education and training that the prison system used. These external institutions do, however, help prisoners to continue

Rethinking Digital and Social Inclusion, PROCEEDINGS OF INTED2015 CONFERENCE, Madrid 1039-40 (Mar. 2-4, 2015), https://www.researchgate.net/profile/Rita_Barros/publication/281441754_Lifelong_learning_through_e-learning_in_european_prisons_Rethinking_digital_and_social_inclusion/links/55e7228f08ae3e1218420433/Lifelong-learning-through-e-learning-in-european-prisons-Rethinking-digital-and-social-inclusion.pdf [http://perma.cc/879J-47KS].

114. *Id.* at 1040.

115. *Id.* at 1041-42.

116. *Id.*

training after their release, and the Norwegian Government has stated its commitment to exploring different ICT platforms to provide prisoners with more pedagogical interactivity and connectivity.¹¹⁷

The prison education system being developed by Sweden is, by comparison, far more evolved than in other Member States. And while this may provide improved pedagogy for students, the ICT and internet access for prisoner students does not differ from other nations examined in this Article. In each of six regions into which Swedish prisons are organized, a principal coordinates all educational matters in that region, further coordinating at a national level. Each prison has a learning center, employing between one and six qualified subject teachers, and the prison system itself can grade and certify courses. Courses are customized for each prisoner, which means subject selection and availability is not dependent on reaching a critical mass of fellow students, and that each inmate can study at their own pace and begin and conclude their course at any time of the school year. However, historically, all instruction and study was restricted to the learning centers, access to virtual classrooms, and the central repository of e-material—the net center—varied depending on the student and their subjects, and students as a rule could not enter the open internet; rather, they were granted limited access to participate in online examinations, for example. Initially, instruction was restricted to general and school education, excluding vocational training, but plans were being developed to broaden the educational offering and ICT capacity.¹¹⁸

4. Conclusion

We can therefore conclude that most prisoners worldwide have no access to the internet. In the instances that some internet access is provided, it is highly regulated. Websites that can be accessed are extremely limited and generally the little access that is provided is only for educational purposes.

The following Parts discuss the implications of this observation within the penal system. We begin by proposing that internet deprivation should be a distinct option in criminal sentencing. In the succeeding Parts, we examine the flip side of this proposal: whether inmates should be

117. Walter Hammerschick, *Report on e-learning in European prisons - Concepts, organization, pedagogical approaches in prison education*, LEARNING INFRASTRUCTURE FOR CORRECTIONAL SERVICES 13-15 (Dec. 23, 2010), <http://www.adameurope.eu/prj/3840/prj/08-lc-report-e-learning-in-prison-eu-10.pdf> [<http://perma.cc/9KG4-CMNR>].

118. *Id.* at 18-20.

allowed internet access and, if not, what implications this should have on their sentences.

IV. INTERNET DENIAL AS A SANCTION

We now focus on our first recommendation: the denial of the internet should be a stand-alone criminal sanction.

A. *Punishment as Pain, Internet Denial as Hardship*

In order to assess whether the denial of the internet should be factored into decisions regarding the nature and length of criminal sanctions, it is important to understand the nature and objectives of criminal sanctions. There are three key criteria that criminal sanctions need to satisfy: (1) they must constitute a hardship; (2) they cannot violate important moral limitations; and (3) they must be efficient to impose. We now explain each of these considerations in more detail.

Ultimately, with few exceptions,¹¹⁹ sentencing is about the infliction of punishment. There is no universally accepted definition of punishment. In defining punishment, some commentators focus on its association with guilt.¹²⁰ Thus, Morris defines punishment as “the imposition upon a person who is believed to be at fault of something commonly believed to be a deprivation where that deprivation is justified by the person’s guilty behavior.”¹²¹ Duff defines punishment as “the infliction of suffering on a member of the community who has broken its laws.”¹²²

Other scholars have emphasized the deprivation that punishment seeks to cause. Christie describes punishment simply as pain delivery¹²³ and, similarly, McTaggart defines punishment as “the infliction of pain on a person because he has done wrong.”¹²⁴ According to Bentham, “all punishment is mischief; all punishment in itself is evil.”¹²⁵ Less emotive is Ten, who describes punishment in a similar vein as “the infliction of

119. The most notable are those directed towards rehabilitation, but even then, they can be outweighed by the other objectives of punishment, such as community protection and deterrence.

120. DUFF, *supra* note 16, at 267.

121. Herbert Morris, *Persons and Punishment*, in THEORIES OF PUNISHMENT 476, 482-83 (S. E. Grupp ed., 1971).

122. DUFF, *supra* note 16, at 267.

123. CHRISTIE, *supra* note 1, at 49.

124. JOHN MCTAGGART & ELLIS MCTAGGART, STUDIES IN HEGELIAN COSMOLOGY 111 (1901) (Batoche Books ed. 2000).

125. BENTHAM, *supra* note 1, at 158.

some unpleasantness on the offender or it deprives the offender of something valued.”¹²⁶

Hart provides the most elaborate definition of punishment. He states that the features of punishment are that: (1) it must involve pain or other consequences normally considered unpleasant; (2) it must be for an offense against legal rules; (3) it must be of an actual or supposed offender for his offense; (4) it must be intentionally administered by human beings other than the offender; and (5) it must be imposed and administered by an authority constituted by a legal system against which the offense is committed.¹²⁷ Of the definitions that have been advanced, the least expansive, when one cuts through the often emotive language, comes down to the view that punishment is a hardship or deprivation; the taking away of something of value for a wrong which has been committed.¹²⁸

Thus, punishment by its very nature involves the infliction of a degree of inconvenience or hardship on an offender. An important aspect of this is that hardship comes in degrees. Thus, we see that all jurisdictions have a hierarchy of sanctions. From least to most severe, common sanction types are: fines, cancellation of licenses and privileges (such as a motor vehicle license), parole, and lastly, imprisonment—which is the harshest disposition, with the exception of capital punishment.

Prison is an effective sanction because it clearly satisfies this first criterion. Prison deprives offenders of time, which is a finite resource, and almost totally curtails their right to liberty, which is an interest that is almost universally coveted.¹²⁹ In establishing new types of criminal sanctions, it is essential that the sanctions target interests which are of wide-ranging appeal.

On this criterion, it is clear that the denial of the internet is a punishment. As noted above, most individuals spend considerable amounts of time on the internet. It is a source of entertainment, connectedness, and vocational efficiency. Therefore, an inability to access and use the internet will necessarily frustrate the preferences of most people, thereby diminishing their well-being.¹³⁰

126. TEN, *supra* note 1, at 2.

127. See further, Mirko Bagaric, *First-time Offender; Productive Offender; Offender with Dependents: Why the Profile of Offenders Matters in Sentencing*, 78 ALBANY L. REV. 397 (2015); H.L.A. HART, PUNISHMENT AND RESPONSIBILITY 4-5 (1968).

128. TEN, *supra* note 1, at 2.

129. Andrew Ashworth & E. Player, *Sentencing, Equal Treatment and the Impact of Sanctions*, in FUNDAMENTALS OF SENTENCING THEORY 251, 259-60 (Andrew Ashworth & Martin Wasik eds., 1998).

130. To this end, it is notable that it has been contended that fulfilment of one’s preferences is the ultimate aim of morality. This is termed preference utilitarianism. See RICHARD MERVYN HARE,

It could be countered that prohibiting people from the internet is not a deprivation and is in fact a benefit to them. Some studies have suggested that the internet, for all of its popularity and functionality, is in fact detrimental to human flourishing.¹³¹ Long periods on devices can cause physical problems, such as back pain, damage to eyesight, and other skeletal and muscular problems. It can also lead to anxiety, stress, and a detachment from the physical world, given that the internet can discourage the formation and consolidation of enduring and meaningful friendships.¹³²

There is no doubt that there are some disadvantages and negatives associated with the internet, but such studies do not undermine the fact that internet deprivation is a hardship. There are two reasons for this. First, people have a strong preference to use the internet. The frustration of this preference alone is a hardship. Secondly, the overwhelming weight of studies suggest that the internet is a productive and positive tool.¹³³ The possibility of overuse or improper use by some individuals does not change this conclusion. The possibility that a sanction will not constitute a hardship to all people is not an insurmountable objection to the viability of the sanction; this is simply a concession to the variability of the human condition. Some people prefer prison to living in the general community,¹³⁴ but this of course does not negate the effectiveness of prison as a means of punishment.

Thus, it follows that the denial of the internet is a hardship. With this established, there are two other criteria that criminal sanctions should satisfy.

MORAL THINKING: ITS LEVELS, METHODS AND POINT (Oxford Univ. Press ed., 1981); PETER SINGER, PRACTICAL ETHICS (Cambridge Univ. Press, 2d ed. 1993).

131. Keith Hampton et al., *Psychological Stress and Social Media Use*, PEW RESEARCH CENTER (Jan. 15, 2015), <http://www.pewinternet.org/2015/01/15/psychological-stress-and-social-media-use-2/> [<http://perma.cc/6ARU-QX4R>].

132. See, e.g., *id.*; Michela Romano et al., *Differential Psychological Impact of Internet Exposure on Internet Addicts*, PLOS ONE (Feb. 7, 2013), <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0055162#pone.0055162-Young2> [<http://perma.cc/8NGG-P29M>].

133. See *infra* Part I.

134. See, for example, this report regarding recidivist criminal Roy Murphy. Marshall White, *Man wants to return to prison*, ST. JOSEPH NEWS-PRESS (Dec. 31, 2013), http://www.newspressnow.com/news/local_news/man-wants-to-return-to-prison/article_9a1dae1b-57b2-5464-a948-b62849cdc6e2.html [<http://perma.cc/6R24-54NE>].

B. *Punishment Must Not Violate Important Moral Prescriptions*

The second criterion that criminal sanctions should satisfy is that they should not infringe important moral principles. While there is a considerable degree of imprecision regarding the exact content of moral norms,¹³⁵ there are some relatively well-established bedrock principles that are applicable in the context of criminal justice.¹³⁶ The deliberate infliction of pain to the body is morally repugnant, and hence corporal punishment is no longer a tenable form of hardship.¹³⁷ Punishing the innocent is also unacceptable,¹³⁸ and hence punishing the family of an offender is also precluded as a means of pain delivery. Internet access, as we have seen, enhances human flourishing. However, it is not a necessity

135. Mirko Bagaric, *A Utilitarian Argument: Laying The Foundation For A Coherent System of Law*, 10 OTAGO L. REV. 180 (2002).

136. The manner in which society treats offenders says as much about the standards of the community as it does about the criminals it is punishing: “a society that fails to deal with cruelty will probably also need to develop mechanisms to desensitize itself to suffering. In so doing, it will diminish itself.” J. Kleinig, *The Hardness of Hard Treatment*, in *FUNDAMENTALS OF SENTENCING THEORY* 283 (Andrew Ashworth & Martin Wasik eds., 1998). Kleinig argues that even imprisonment compromises the human regard to which offenders are entitled. *Id.* This comment is made in the context of imprisonment, but applies even more so in the context of corporal punishment. For an overview of the nature of corporal punishment, see CHRISTOPHER HARDING & RICHARD W. IRELAND, *PUNISHMENT: RHETORIC, RULE, AND PRACTICE* 187, 193 (1989).

137. See also Kleinig, *supra* note 136, at 273, 278.

138. H. J. MCCLOSKEY, *META-ETHICS AND NORMATIVE ETHICS* 180-81 (Martinus Nijhoff & The Hague eds., 1969). A similar example to McCloskey’s is provided in E. F. CARRITT, *ETHICAL AND POLITICAL THINKING* 65 (Greenwood Publishing ed., 1947). These moral proscriptions against corporal punishment and inflicting punishment on the family members of offenders are both likely to be reflected in the constitutional prohibition against “cruel and unusual” punishment in the Eighth Amendment, although the matters have not been directly litigated. The prohibition against cruel and unusual punishment has been applied sparingly in the sentencing domain. To the extent that it has been applied in this area, it has been mainly in relation to proscribing the death penalty to certain forms of crimes (non-homicide offenses) and criminals (juveniles). See *Kennedy v. Louisiana*, 128 S. Ct. 2641 (2008). In determining the scope of this limitation, the Supreme Court has taken into account international standards relating to appropriate levels of punishment. See *Graham v. Florida*, 130 S. Ct. 2011 (2010); *Atkins v. Virginia*, 536 U.S. 305, (2002); *Thompson v. Oklahoma*, 487 U.S. 815 (1988). In relation to non-capital sentences, the Supreme Court has endorsed the concept of proportionality as being a constraint on the level of punishment, but the concept has not been developed with any degree of precision and can only be invoked to prohibit sanctions which contain “gross disproportionality.” Donna Lee, *Resuscitating Proportionality in Noncapital Criminal Sentencing*, 40 ARIZ. ST. L.J. 527, 528 (2008), observes that gross disproportionality is a threshold requirement to the application of the proportionality principle, and if this is satisfied, the Court will apply two further tests. “The second and third parts call for an intrajurisdictional review of sentences received within the state for more and less serious crimes, and an interjurisdictional review of sentences received in other states for the same crime.” *Id.* See also *Ewing v. California*, 538 U.S. 11 (2003); *Lockyer v. Andrade*, 538 U.S. 66 (2003); *Solem v. Helm*, 463 U.S. 277 (1983); *Hutto v. Davis*, 454 U.S. 370 (1982); *Rummel v. Estelle*, 445 U.S. 263 (1980); *Pepper v. United States*, 131 S. Ct. 1229, 1240 (2011); F. F. Stinneford, *Rethinking Proportionality under the Cruel and Unusual Punishments Clause*, 97 VA. L. REV. 899 (2011).

of life. It follows that denial of internet access would not violate this limitation.

C. Punishment Should Be Efficient

Apart from being effective in delivering pain and not violating any moral prohibitions, there is one other important guiding principle that is relevant in formulating criminal sanctions; they should be as economical as possible to administer and enforce. Sanctions, which involve a high degree of supervision or that are program-based, create a strain on scarce community resources and aggravate the pain that the community has already suffered as a result of the commission of the offense. If sanctions are too expensive to apply or enforce, then the whole exercise threatens to become self-defeating. The interests of the community may be better served by not punishing at all, rather than utilizing public resources to punish minor and middle-range offenders.

Ostensibly, internet deprivation also satisfies this requirement. Formally, it is easy to prohibit offenders from accessing the internet. A court order proscribing any internet use for a defined period of time has this effect. However, the more complex aspect involves monitoring and enforcing this restriction.

There are a number of observations to make here. The first is that, although monitoring an internet ban has some challenges, the technology has progressed to the point where it is quite feasible to control all internet access for a given device or user. Internet endpoint security has developed dramatically over the last few years, and so monitoring and control of a given internet device, user, or router is nowadays straightforward.¹³⁹ Endpoint security is the generic name for a host of technologies that monitor the content that goes into, and out of, an internet-connected device at the edge of the network—that is, computer, tablet, or phone that a human user uses to interact with the internet. It is now routine for corporate environments to block web content that is not safe for the workplace—hence the well-known tag “NSFW”—or which offends against a range of company policies, such as sites that espouse offensive political views, are humorous, or represent wastes of company time.

Aside from blocking content, it is possible for endpoint security systems to undertake packet-level inspection of email, social media posts, or remote logins, thereby ensuring complete compliance of the user with the rules and policies of the controlling entity.¹⁴⁰ Endpoint security

139. MARK S. KADRICH, *ENDPOINT SECURITY* (Addison-Wesley ed., 2007).

140. BROOK S. E. SCHOENFIELD, *SECURING SYSTEMS: APPLIED SECURITY ARCHITECTURE AND*

systems can use either a controlled client-server architecture or may use a constrained device with a software-as-a-service model for the delivery of content to the client.¹⁴¹ In the former scenario, a hardware system such as a router is located at the controlled point, tracking and editing the types of internet packets which can pass into the end users' devices. In the second approach, the tracking and control point is hosted remotely, and only passes packets to the end user devices if the content is compliant with the policies.

Both techniques provide the ability to monitor all internet usage to a device, user, or place, as well as the ability to constrain what a user can access over the internet.¹⁴² It is thus technologically feasible to have gradations of internet access where, for example, one device or user would have access only to part of the internet—email, for example, or Facebook—while other devices or users would have no access at all. For the sake of parsimony, we only propose complete internet deprivation as a penal sanction; however, once the proposal is developed and implemented via endpoint security, other sanctions could easily be developed to limit internet access to specified uses, approved as part of the penal sentence.

Although the technology has advanced, there are still issues with securing a given location, since there are, of course, numerous ways of bypassing any given locked device. The three most obvious problems here are: (1) multi-user places and households; (2) telecommunications; and (3) external access points.

Multi-user locations are not a huge issue, since part of any penal sentence can encompass the requirement for others within the household to deny internet access to the offender, with regular checks by corrections officers to ensure that this prohibition is not being breached. Additionally, telecommunications are not a significant problem since any offender's cell phone can be locked so as to only allow telephone calls and certain non-internet data uses (such as texting).¹⁴³

External locations provide more of an issue, but can be dealt with by an appropriate sentence that forbids the offender from access to unsecured computers in locations outside the home. Although this cannot guarantee

THREAT MODELS (CRC Press ed., 2015).

141. *Id.* at 301-11; *Endpoint Security*, WIKIPEDIA, https://en.wikipedia.org/wiki/Endpoint_security [<http://perma.cc/EU3V-BKSV>].

142. With the advent of cloud computing, much of this technology has navigated into the cloud, making delivery of the software-as-a-service especially straightforward. See IAN LIM ET AL., *SECURING CLOUD AND MOBILITY: A PRACTITIONER'S GUIDE* (CRC Press ed., 2013).

143. KADRICH, *supra* note 139, at 8-11.

100% compliance, it is important to note that appropriate inspection and monitoring by corrections officers will ensure an adequate level of compliance. And we should bear in mind that it is not necessary for perfect compliance of a penal sanction in order for a restriction or deprivation to be a viable and effective sanction. The cancellation of a motor vehicle license is a common sanction for driving offenses, even though it is impossible to detect all of the times when an offender may drive without a license. The efficacy of the sanction stems from the assumption that many offenders will generally comply with a court order, or if they do not comply, then many of those who violate the ban on driving will be detected through law enforcement measures, including license checks and targeted detection. It is not known what portion of suspended drivers adhere to the ban, but at least there is a clear, tenable mechanism for detecting those who flout the ban, and more severe sanctions for those who defy the terms of the initial punishment.

D. *Operationalizing Internet Deprivation as Sanction*

1. The Principle of Proportionality

Given that it is feasible to make internet deprivation a discrete sanction, the next issue is to determine the circumstances in which it should be applied and how it compares to other sanctions. It is crucial to get at least an approximate gauge about the severity of a penalty before formulating the circumstances in which it can be imposed. This stems from the primacy of the principle of proportionality, which is one of the few core sentencing principles that is adopted by both retributive and (some) utilitarian philosophers.¹⁴⁴ In crude terms, this is the principle that the punishment must fit the crime; in more nuanced terms, it is the theory that the seriousness of the crime should be matched by the hardship of the penalty.

The United States Supreme Court has held that proportionality is implied from the Eighth Amendment.¹⁴⁵ It is also a requirement of the sentencing regimes of ten states in the United States¹⁴⁶ and a core principle

144. See Jami L. Anderson, *Reciprocity as a Justification for Retributivism*, 16 CRIM. JUST. ETHICS 13, 23 (1997); ANDREW VON HIRSCH, PAST OR FUTURE CRIMES 11–12 (1985); RYBERG, *supra* note 19, at 5; BENTHAM, *supra* note 1, at 165; Paul H. Robinson, *The Ongoing Revolution in Punishment Theory: Doing Justice as Controlling Crime*, 42 ARIZ. ST. L.J. 1089, 1110 (2010).

145. The principle of proportionality applies only to invalid sentences which are grossly disproportionate to the seriousness of the relevant offense. *Solem v. Helm*, 463 U.S. 277 (1983); *Harmelin v. Michigan*, 501 U.S. 957 (1991); *Ewing v. California*, 538 U.S. 11 (2003).

146. See Gregory S. Schneider, Note, *Sentencing Proportionality in the States*, 54 ARIZ. L. REV.

that supposedly informs the Federal Sentencing Guidelines.¹⁴⁷ Proportionality, at least at the conceptual level, is a well-ingrained aspect of the sentencing system in Australia—to the extent that the Australian High Court has stated that it is the key sentencing consideration.¹⁴⁸

Reduced to its constituent elements, proportionality has two parts; the first component is the seriousness of the crime, and the second is the harshness of the sanction. Further, the principle has a quantitative component—the two limbs must be matched. For the principle to be satisfied, the seriousness of the crime must be equal to the harshness of the penalty.¹⁴⁹

Despite the near universal endorsement of proportionalism, the concept is so vague that it is incapable of providing concrete guidance to courts regarding the appropriate sanction that should be imposed in any particular instance.¹⁵⁰ The limbs of the principle are too nebulous to enable an evaluation of offense severity and the hardship of sanctions. Moreover, it is untenable to attempt even an approximate matching of these integers. To overcome these problems, one of us previously concluded that the most persuasive manner for grading levels of harm and levels of sanction hardship is to advance an overarching moral theory, which is informed by empirical data.¹⁵¹ A coherent moral theory that is influential in the sentencing domain is utilitarianism, which ranks harm according to the extent to which the harm diminishes happiness. While happiness is ostensibly a vague concept, the past few decades have seen considerable inroads made into the related concept of well-being, and Mirko Bagaric has previously argued that this should inform the content of the proportionality principle.¹⁵²

The Organization for Economic Co-operation and Development (OECD) has constructed a “Better Life Index” which attempts to set out

241, 250 (2012) (focusing on the operation of the principle in Illinois, Oregon, Washington, and West Virginia).

147. See THE GROWTH OF INCARCERATION IN THE UNITED STATES, *supra* note 74, at 23. In addition to this, a survey of state sentencing law by Thomas Sullivan and Richard Frase shows that at least nine states have constitutional provisions relating to prohibiting excessive penalties or treatment, and 22 states have constitutional clauses which prohibit cruel and unusual penalties, including eight states with a proportionate-penalty clause. See THOMAS SULLIVAN & RICHARD S. FRASE, PROPORTIONALITY PRINCIPLES IN AMERICAN LAW: CONTROLLING EXCESSIVE GOVERNMENT ACTIONS, 155-56 (2010).

148. *Veen v The Queen (No. 2)* (1988), 164 CLR 465, 472 (Austl.).

149. RYBERG, *supra* note 19, at 186.

150. *Id.*

151. See Mirko Bagaric, *Injecting Content into the Mirage that is Proportionality in Sentencing*, 25 NEW ZEALAND UNIV. L. REV. 411, 411-41 (2013).

152. *Id.*

and prioritize the matters that are most essential for human well-being.¹⁵³ The index lists 11 criteria for measuring life quality. The criteria were developed in order to facilitate nations to supplement economic progress in evaluating progress and achievement. From most to least important, the relevant criteria are: (1) life satisfaction; (2) health; (3) education; (4) work-life balance; (5) environment; (6) jobs; (7) safety; (8) housing; (9) community; (10) income; and (11) civic engagement.¹⁵⁴

Some headway into operationalizing the proportionality principle can be made if the extent to which the offender's well-being is set back by the penalty matches (at least crudely) the amount by which the victim's well-being has been reduced by the crime. In terms of the harm caused by various offense types, there is an approximate hierarchy of offense harmfulness that can be formulated. Research establishes that the most serious offense categories are violent and sexual offenses.¹⁵⁵ Victims of other forms of crimes, mainly property offenses, generally recover far more quickly from the crime.

For the purposes of this Article, the most important aspect of proportionalism is calibrating the hardship of criminal sanctions. To that end, it is clear that, apart from capital punishment, prison is the harshest sanction. While there has been a degree of research into the hardship stemming from imprisonment, far less focus has been directed to other sanctions and there has been little research into the extent to which sanctions can be interchanged or substituted. Any such analysis will obviously involve a degree of approximation. There is no objective and clear answer, for example, regarding the amount of fine that is equivalent to the pain of a day or week in prison. Similarly, there is no formulaic calibration for determining how much internet deprivation is as painful as a day or week in prison. Nevertheless, such an analysis needs to be undertaken and at least the methodology should be made clear. Imprisonment is the natural reference point for evaluating and contrasting other sanctions given that it is the most serious sanction¹⁵⁶ and the one that is most expensive and overly utilized.

153. These measures are designed to be more informative than economic statistics, especially in the form of Gross Domestic Product (GDP). *How's Life?*, OECD BETTER LIFE INDEX, <http://www.oecdbetterlifeindex.org/wpsystem/wp-content/uploads/2012/06/WMA.jpg> [<http://perma.cc/UA6U-HEM8>] (last visited July 1, 2016).

154. *Id.*

155. Rochelle F. Hanson et al., *The Impact of Crime Victimization on Quality of Life*, J. OF TRAUMATIC STRESS 189 (Apr. 2010); Mike Dixon et al., *The Unequal Impact of Crime*, CRIMESHARE 25 (2006); Chester L. Britt, *Health Consequences of Criminal Victimization*, 8 INT'L REV. OF CRIMINOLOGY 163 (2001).

156. As noted above, the obvious exception is capital punishment, but this is rarely utilized and

2. A Starting Point: One Day Imprisonment Should be Substituted for Three Days Internet Ban

The first step in attempting to equate the hardship stemming from imprisonment with deprivation of the internet is to establish that, in fact, the latter is a meaningful deprivation. This step is relatively straightforward. There are a number of considerations that demonstrate that an internet ban constitutes a hardship. The first is the strength of the preference that people have to use the internet. This is very strong, and on average many people choose to spend several hours a day accessing the internet for a range of work and leisure functions. Thus, we can confidently assume that denying this access will cause people significant inconvenience. Additionally, there are a number of other ways in which people's lives will be frustrated by non-access to the internet. As noted in Part II of this Article, it will reduce their connectedness with friends and family, as well as diminish their career prospects and educational opportunities. Thus, it follows that the deprivation or interference with these interests constitutes a significant unpleasantness.

Given that denial of the internet is a hardship, the next step is to establish what level of internet denial, if any, is equivalent to a day in prison. This raises for consideration the broader issue of the criteria for the interchangeability or substitution of criminal sanctions. There is no established framework for this process. The concept of a sanction unit has been suggested; however, attempts to inject content into such an approach have not been adopted or even developed with a high degree of specificity.¹⁵⁷ This is largely because of the number and different types of variables involved and a high degree of subjectivity that exists regarding the extent to which individuals covet different types of interests. There is no ready way in which to equate a fine of a certain amount¹⁵⁸ or internet

is not considered further in this Article.

157. For example, there is no clear basis for determining the parity and interchangeability of existing sanctions which are seemingly disparate. For a discussion regarding the concept of sanction (or punishment) units and sanction substitution or equivalences, see MICHAEL TONRY, *SENTENCING MATTERS* 131 (Oxford Univ. Press 1996); ANDREW VON HIRSCH, *CENSURE AND SANCTIONS* 60 (1993); Joan Petersilia & Elizabeth Deschenes, *Perceptions of Punishment: Inmates and Staff Rank The Severity of Prison Versus Intermediate Sanctions*, 74 *PRISON J.* 306 (1994); Voula Marinou, *Thinking about penal equivalents*, 7 *PUNISHMENT & SOCIETY* 441 (2005); NORA V. DERMLEITNER ET AL., *SENTENCING LAW AND POLICY: CASES, STATUTES, AND GUIDELINES* 631-33 (3d ed. 2013) (discussing the concept of a day fine which adjusts the amount to the income of the offender, but not as a substitute to imprisonment).

158. In some jurisdictions for relatively non-serious offenses, prison can be converted for a fine of a designated amount. Additionally, in some instances, people who cannot afford to pay (or refuse to pay) a fine are imprisoned for a set duration, but there is no established rationale for setting these calibrations. In the Australian state of Victoria, for example, previously a fine could be discharged by

deprivation for a certain period with the burden of imprisonment for a day. It is almost certainly true that some people would prefer to spend a day in prison rather than, say, pay a fine of \$1,000 or lose internet access for a week. But other individuals would rather pay a fine of almost any amount to avoid even a day in prison.

Despite such complexities and inevitable approximations that are involved in comparing different forms of sanctions, intellectual rigor and doctrinal transparency require that relevant conclusions and calculations should be expressly set out. Minimally, this will provide a pragmatic reference point for further discussion and possible refinement, as opposed to fostering ongoing vagueness.

We suggest that as a general rule, each day in prison should equate to three days being banned from the internet. Thus, in crude terms, a court should substitute a one-year term imprisonment for a three-year internet ban. The proviso to this is that there are some offenses that are too serious to be dealt with by an internet ban of any length. This is because either the pain caused to victims demands a very stern sanction or because community protection is the cardinal sentencing consideration, or a combination of both.

We now expand on these two considerations. The substitution formula is based on two considerations. The first is the reality that most people spend several hours per day on the internet. In straight mathematical terms, this is about 10% to 20% of their waking (productive hours). Further, as we have seen, the frustration that is caused by internet denial exceeds this pure quantitative requirement because the internet is used not only to fill the time that one is online, but also to assist people to organize and facilitate other preferences and life plans, from booking a restaurant, organizing to meet a friend, finding employment, and longer term aims, such as obtaining an education and discharging their employment requirements.

A person that is prohibited from using the internet is significantly handicapped in pursuing and accomplishing many of his or her life aims. An internet ban for many people will make it far more difficult to participate in and fulfill core aspects of everyday life, including socializing, obtaining and maintaining a job, and completing an education. Of course, they would still be free in the community and be in a position

imprisonment or community work in default of payment at the rate of \$100 per day or \$20 per hour, respectively. RICHARD G. FOX & ARIE FREIBERG, *SENTENCING: STATE AND FEDERAL LAW IN VICTORIA* 414-15 (Oxford Univ. Press, 2d ed. 1999). There is, however, no doctrinal framework underpinning this supposed equivalence.

to pursue many of their goals, but in nearly all relevant endeavors they would find life more frustrating, less efficient, and less enjoyable.

The unpleasantness of internet deprivation is obviously not on par to prison, given that the internet sanction still allows an individual to enjoy physical mobility, enjoy relationships with close friends and family, and the individual will not be subjected to the increased threats of force and violence that exist in the prison environment.¹⁵⁹ However, given the extent to which a person's overall short-term and long-term projects will be frustrated by internet denial, we propose that three days internet denial is roughly equivalent to the pain of one day in prison.¹⁶⁰

There are a number of operational aspects to the implementation of the sanction. The starting point is that the internet sanction should be reserved for offenders who are regular users of the internet. However, there is scope to widen its sphere of operation to those who do not currently use the internet frequently: people become disappointed and displeased by not only the deprivation of a quantifiable good or activity, but also by the denial of the opportunity to pursue the good and engage in the activity. It is largely for this reason that we find the existence of formal barriers to access by certain groups of social goods and services so repugnant. Opportunity or potential—though it may never be realized—is in itself a highly desirable virtue. The criminal justice systems of many jurisdictions already endorse this principle, at least implicitly. For example, in some instances unlicensed traffic offenders are punished by disqualifying them from obtaining a license for a certain period.¹⁶¹

There are few offenders who have no desire to enhance their sphere of friends and enhance their career and employment prospects. The internet sanction is therefore suitable even for people who do not use the internet or only use it occasionally. The only individuals who would not be inconvenienced by this sanction (and hence should be amenable to it) are those who are not aspirational and beyond the point in their lives where the internet could value-add to their activities. An offender's previous behavior is obviously the best evidence regarding whether or not the

159. H. E. Sung, *Prevalence and risk factors of violence-related and accident-related injuries among state prisoners*, 16 J. OF CORRECTIONAL HEALTH CARE 178 (2010); see also GRESHAM M. SYKES, *THE SOCIETY OF CAPTIVES: A STUDY OF A MAXIMUM SECURITY PRISON* 287 (2007); *US: Federal Statistics Show Widespread Prison Rape*, HUMAN RIGHTS WATCH (Dec. 15, 2007), <https://www.hrw.org/news/2007/12/15/us-federal-statistics-show-widespread-prison-rape> [<http://perma.cc/D53Q-U2LY>].

160. If the recommendation to allow prisoners access to the internet is adopted, then prison obviously becomes a less harsh sanction and we propose that a two-day internet deprivation is the equivalent of one day in prison.

161. BAGARIC & EDNEY, *supra* note 70.

offender is likely to be inconvenienced by denial of internet access, and to what degree. It would seem safe to assume that an elderly person who has not used the internet and is retired will not feel a loss in any form by being denied access to it. In other cases, there will be a degree of speculation associated with whether a person is likely to have their interest set back by a prohibition against using the internet. Given the widespread and increasing use and functionality of the internet, the default position should be that the sanction should be available against all offenders. This position can only be displaced by evidence that the offender's life trajectory is such that he or she is unlikely to use the internet in the foreseeable future. In most cases this would be confined to very elderly offenders; however, this is not a considerable caveat given that only a small portion of offenders who commit offenses that currently attract prison terms are over the age of 60.¹⁶²

3. Default Recommendation: Replace All Short Prison Terms with the Internet Sanction

In order to operationalize the internet sanction, we suggest that it should be used as a substitute to all prison terms which currently attract a sentence of one year or less, subject to the above qualification about the offender's suitability for the sanction (i.e., he or she would be inconvenienced by internet denial).¹⁶³ The latest prison data in the United States shows that at the end of 2014 there were 1,561,500 prisoners in state and federal correctional institutions (a decrease of 1% from the previous year).¹⁶⁴ This equated to a rate of 612 per 100,000 of the adult population.¹⁶⁵ The number of prisoners sentenced to terms of one year or

162. For example, people over the age of 60 rarely commit crime. They represent less than only five percent of the total prison population. Carson, *supra* note 3.

163. As discussed below, it is also not appropriate in relation to serious sexual or violent offenses, but this is not a caveat to this proposal given that these offenses nearly always attract far more substantial penalties than imprisonment for a year or less.

164. *Id.*

165. *Id.* at 7. In addition to this, there was an estimated 744,600 inmates in local jails. *The Nation's Jails Held Fewer Inmates at Midyear 2014 compared to Their Peak Count in 2008*, OFFICE OF JUSTICE PROGRAMS: BUREAU OF JUSTICE STATISTICS, <http://www.bjs.gov/content/pub/press/jim14pr.cfm> [<http://perma.cc/P46A-AJUT>]. This data is not as accurate:

Collects data from a nationally representative sample of local jails on jail inmate populations, jail capacity, and related information. The collection began in 1982 and has been conducted annually, except for the years 1983, 1988, 1993, 1999, and 2005, during which a complete census of U.S. local jails was conducted.

Data Collection: Annual Survey of Jails, OFFICE OF JUSTICE PROGRAMS: BUREAU OF JUSTICE STATISTICS, <http://www.bjs.gov/index.cfm?ty=dcdetail&iid=261> [<http://perma.cc/D69L-D4ZX>].

more was 1,508,636,¹⁶⁶ amounting to 97% of all prisoners. Thus, only approximately 53,000 inmates were serving prison terms of one year or less. Assuming this sentencing trend remains consistent, the internet sanction could be implemented to substantially reduce prison numbers. This would not only result in a more humanistic outcome for these offenders but also a massive saving to the taxpayer, given that in the United States it costs over \$29,000 annually to house each prisoner.¹⁶⁷

In Australia, the impact of this proposal would be even more significant, given that there is a much higher portion of offenders receiving prison terms of one year or less. The latest prison data (relating to prison numbers on June 30, 2015) shows that the total number of prisoners with terms of one year or less is 4,259, with the total sentenced prison numbers being 26,163.¹⁶⁸ Thus, the proposal would apply to more than 15% of the prison population. It would also result in a relatively higher cost saving given that, in Australia, the cost of imprisoning each offender for a year is approximately \$100,000 per person.¹⁶⁹

In terms of rolling out the internet sanction more widely, it should also be potentially available to all offense categories, except serious sexual or violent offenders. As noted earlier, the crimes that cause the most harm are violent and sexual offenses¹⁷⁰ and hence the harshest sanction available in our criminal justice system (imprisonment) should be confined to serious violations of this interest.¹⁷¹ Prison statistics data shows that expanding the availability of the internet sanction to non-violent and non-sexual offenses, which are dealt with by prison for even longer than one year, greatly expands the potential scope of operation of the sanction.

In 2014, there were 1,325,305 inmates in U.S. state prisons. The most serious offense categories for these prisoners were: (1) violent at 704,800; (2) property at 255,600; (3) drug at 208,000; (4) public order at 146,300;

166. Carson, *supra* note 3 at 5.

167. Kearney & Harris, *supra* note 8. This is \$260 per capita. Press Release, The White House, *CEA report: Economic Perspective on Incarceration and the Criminal Justice System* (Apr. 23, 2016), <https://www.whitehouse.gov/the-press-office/2016/04/23/cea-report-economic-perspectives-incarceration-and-criminal-justice> [<http://perma.cc/HMN5-ACNX>].

168. 4517.0 – Prisoners in Australia, 2015, AUSTRALIAN BUREAU OF STATISTICS, Table 10 (Dec. 11, 2015), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4517.02015?OpenDocument> [<http://perma.cc/U37E-6S73>].

169. *Corrective Services, in Report on Government Services 2016*, AUSTRALIAN PRODUCTIVITY COMM'N REPORT, Ch. 8, <http://www.pc.gov.au/research/ongoing/report-on-government-services/2016/justice/corrective-services> [<http://perma.cc/7ZJ6-422Y>]. Table 8A.7, shows the total cost per prisoner day (including capital costs) is \$292—not including capital costs it is \$219.

170. Bagaric, *From Arbitrariness to Coherency in Sentencing*, *supra* note 21.

171. *Id.*

and (5) other at 10,600.¹⁷² There were 192,663 prisoners in U.S. federal prisons. Their most serious offenses were: (1) violent at 14,100; (2) property at 11,600; (3) drug at 96,500; (4) public order at 69,100; and (5) other at 21,400. Thus, less than half of the total inmates (47%) are imprisoned for sexual and violent offenses.¹⁷³

A similar trend exists in Australia regarding offense types for which offenders are imprisoned. In Australia, just more than half (54%) of offenders are incarcerated for sexual or violent offenses. The number of prisoners for violent and sexual offenses is 19,503, compared to a total prison population of 36,134, meaning that 46% of offenders are not in prison for violent or sexual offenses.¹⁷⁴

Thus, the internet sanction has the potential to be applied to a large number of offenders. Of course, it is not tenable to suggest that very long terms of imprisonment, say in the order of ten years or more, should be substituted for internet sanctions of three times that duration. To that end, it is notable that in the United States there has been a considerable escalation in the length of prison terms in recent decades. A recent report by the Pew Research Center on the United States found that the average length of prison sentences has increased 36% since 1990.¹⁷⁵ According to a 2013 Sentencing Project report, one in nine prisoners in U.S. prisons are serving a life sentence. This is more than four times the rate in 1984 (despite crime rates declining during this period).¹⁷⁶ Moreover, the number of prisoners serving a life sentence without the possibility of parole increased 22% between 2008 and 2013.¹⁷⁷ It is not uncommon for many forms of non-violent and non-sexual offenses to attract very long terms.

These sentencing practices would seem to reduce the scope of application of the internet sanction. However, the reform we are suggesting in this Article should be looked at through the lens of not only current sentencing practices, but also those that are likely to prevail into the foreseeable future.

172. Carson, *supra* note 3, at Appendix Table 4.

173. *Id.* at Appendix Table 5.

174. 4517.0 – Prisoners in Australia, 2015, *supra* note 168, at Table 1.

175. *Time Served: The High Cost, Low Return of Longer Prison Terms*, THE PEW CHARITABLE TRUSTS 2 (June 6, 2012), <http://www.pewtrusts.org/en/research-and-analysis/reports/2012/06/06/time-served-the-high-cost-low-return-of-longer-prison-terms> [<http://perma.cc/R6S5-9ZKT>].

176. *Trends in U.S. Corrections*, THE SENTENCING PROJECT 8, <http://sentencingproject.org/wp-content/uploads/2016/01/Trends-in-US-Corrections.pdf> [<http://perma.cc/Y2YZ-GZKP>] (last updated Dec. 2015).

177. *Id.*; *Life Goes On: The Historic Rise in Life Sentences in America*, THE SENTENCING PROJECT (2013), <http://www.sentencingproject.org/wp-content/uploads/2015/12/Life-Goes-On.pdf> [<http://perma.cc/H93Q-K48P>].

There is now considerable momentum towards reducing sanction severity, especially for offenses not involving violence and sexual infringements. For example, in November 2014, voters in California approved “California Proposition 47, Reduced Penalties for Some Crimes Initiative (2014),”¹⁷⁸ which limited the operation of the state’s harsh mandatory penalty regime by reducing some non-violent offenses from felonies to misdemeanors.¹⁷⁹ The average penalty reduction is likely to be two years and one month, resulting in a potential saving of approximately 80,000 prison beds.¹⁸⁰ The first tranche of these prisoners was released in late 2015.¹⁸¹ Further, the Sentencing Reform and Corrections Act of 2015 aims to implement a number of other measures that will reduce prison numbers, including reduced sentences for drug offenders.¹⁸² In addition to

178. In summary, the law brings about the following key changes:

[It] requires misdemeanor sentence instead of felony for certain drug possession offenses; Requires misdemeanor sentence instead of felony for the following crimes when amount involved is \$950 or less: petty theft, receiving stolen property, and forging/writing bad checks; Allows felony sentence for these offenses if person has previous conviction for crimes such as rape, murder, or child molestation or is registered sex offender; Requires resentencing for persons serving felony sentences for these offenses unless court finds unreasonable public safety risk; Applies savings to mental health and drug treatment programs, K–12 schools, and crime victims.

Proposition 47: Criminal Sentences. Misdemeanor Penalties. Initiative Statute., OFFICIAL VOTER INFORMATION GUIDE, <http://vigarchive.sos.ca.gov/2014/general/en/propositions/47/> [<http://perma.cc/E9Q4-FRXM>] (last visited July 1, 2016).

179. The law was passed with a majority of 59% of voters in favor. Kristina Davis, *Calif Cuts Penalties for Small Drug Crimes*, THE SAN DIEGO UNION-TRIBUNE (Nov. 4, 2014, 8:04 PM), <http://www.sandiegouniontribune.com/news/2014/nov/04/prop-47-misdemeanor-law-vote-election-drug/> [<http://perma.cc/NG2J-3VXU>]; see also *San Francisco Called a Model for Ending Mass Incarceration*, THE CRIME REPORT (Dec. 1, 2015, 10:34 AM), <http://www.thecrimereport.org/news/articles/2015-12-san-francisco-called-a-model-for-ending-mass-incarceration> [<http://perma.cc/SFV2-GHCT>]. For an overview of the impact of the reform, see Rob Kuznia, *An unprecedented experiment in mass forgiveness*, THE WASHINGTON POST (Feb. 8, 2016), https://www.washingtonpost.com/national/an-unprecedented-experiment-in-mass-forgiveness/2016/02/08/45899f9c-a059-11e5-a3c5-c77f2cc5a43c_story.html [<http://perma.cc/4C69-2CZ6>].

180. NEWS RELEASE: U.S. SENTENCING COMM’N, U.S. SENTENCING COMMISSION UNANIMOUSLY VOTES TO ALLOW DELAYED RETROACTIVE REDUCTION IN DRUG TRAFFICKING SENTENCES: COMMISSION AUTHORIZES JUDGES TO REDUCE DRUG SENTENCES FOR ELIGIBLE PRISONERS BEGINNING NOVEMBER 2015 IF CONGRESS ALLOWS GUIDELINES CHANGE TO STAND, 1-2 (2014).

181. Sari Horwitz, *Justice Department set to free 6,000 prisoners, largest one-time release*, WASHINGTON POST (Oct. 6, 2015), https://www.washingtonpost.com/world/national-security/justice-department-about-to-free-6000-prisoners-largest-one-time-release/2015/10/06/961f4c9a-6ba2-11e5-aa5b-f78a98956699_story.html [<http://perma.cc/69XA-8PKU>]; Richard L. Young, *Federal re-entry programs continue to benefit community*, THE INDIANA LAWYER (Jan. 13, 2016), <http://www.theindianalawyer.com/federal-re-entry-programs-continue-to-benefit-community/PARAMS/article/39193> [<http://perma.cc/2V4K-ST26>].

182. For a summary of the provisions, see Douglas A. Berman, *Basic elements of Sentencing*

this, there are numerous reforms recently implemented by several states in America that are expected to reduce prison terms.¹⁸³ Assuming that prison terms for non-violent and non-sexual offenses do become shorter in the short to mid-term future, the circumstances in which the internet sanction can apply will be expanded, thereby increasing further the utility of this proposed sanction.

V. PROVIDING INTERNET ACCESS TO PRISONERS

A. *Five Reasons in Support of Internet Access for Prisoners*

Our next major proposal is that the internet should be made available to prisoners. There are five main reasons in support of this recommendation. The first is that the main deprivation stemming from imprisonment should be limited to the deprivation of liberty—other burdens should be reduced to the maximum extent reasonably possible. Second, internet access provides prisoners with the best access to education, which is a key to reducing reoffending. Third, the internet will facilitate the reintegration of offenders into the community following their release. Fourth, it has been established that providing prisoners with access to the internet will improve their behavior. Finally, it will improve the lives of relatives of prisoners. We now expand on these reasons.

1. The Main Hardship of Imprisonment is the Denial of Liberty

As noted above, prison is the harshest form of punishment under both the United States and Australian systems of law, with the obvious exception of the death penalty. Prison fulfills two key functions: community protection and punishment. The main form of deprivation is loss of liberty.

In order to fulfill both of its functions, the deprivation of liberty stemming from the confinement of prison is in itself a stern hardship.

Reform and Corrections Act of 2015, SENTENCING L. & POL'Y (Oct. 1, 2015, 10:33 AM), http://sentencing.typepad.com/sentencing_law_and_policy/2015/10/basic-elements-of-sentencing-reform-and-corrections-act-of-2015.html [<http://perma.cc/69XA-8PKU>]; see also The Editorial Board, *Toward Saner, More Effective Prison Sentences*, N.Y. TIMES (Oct. 3, 2015), http://www.nytimes.com/2015/10/04/opinion/sunday/toward-saner-more-effective-prison-sentences.html?_r=0 [<http://perma.cc/8W9F-BA3C>] (lauding the Sentencing Reform and Corrections Act of 2015); U.S. SENTENCING COMMISSION UNANIMOUSLY VOTES TO ALLOW DELAYED RETROACTIVE REDUCTION IN DRUG TRAFFICKING SENTENCES, *supra* note 180.

183. *Justice in Review: New Trends in State Sentencing and Corrections 2014-2015*, VERA INSTITUTE OF JUSTICE (May 26, 2016), <http://www.vera.org/pubs/state-sentencing-and-corrections-trends-2014-2015> [<http://perma.cc/YUM2-27RG>].

Despite this, there are numerous other harms stemming from prison. Prison is a brutal institution; it often leads to significant gratuitous human rights deprivations which are a regrettable side effect of being housed behind high concrete walls. Prisoners cannot procreate. They cannot engage in meaningful family relationships. They are far more likely to be beaten or raped than other members of the community, and hence their right to sexual and physical security is diminished. Further, their ability to secure employment after release is diminished, as are their lifetime earnings.¹⁸⁴

These additional sufferings are not necessary for prison to achieve either of its core aims. Certainly, there is no need for any additional burdens to be added to the pains of imprisonment.

This is the case in more progressive regions such as Scandinavia. In Norway, Finland, and Sweden, cell sizes are much larger than in the United States, and prisoners have the same access to health, social, and educational services as the general population.¹⁸⁵ Moreover, conjugal relations are encouraged, and most prisons provide accommodation where the partners and children of inmates can stay without charge for weekends.¹⁸⁶

The exemplar of the non-punitive, integrative approach to imprisonment is Halden Prison in Norway, which houses maximum-security prisoners. Each cell has unbarred windows, designer furniture, and an en-suite bathroom. Guards are not armed, and prison conditions are assessed by inmates with the use of questionnaires regarding their experience in prison and what can be done to improve it.¹⁸⁷ As noted by John Pratt, the same approach applies in Finland.¹⁸⁸ More generally, it has been noted that:

Scandinavian prisons operate under the philosophy of normalization in which the punishment is the removal of liberty; that is, incapacitation is the punishment. The incarceration experience should resemble normal

184. See THE GROWTH OF INCARCERATION IN THE UNITED STATES, *supra* note 74, at 247. One study estimated the earnings reduction to be as high as 40%. Bruce Western & Becky Pettit, *Incarceration & Social Inequality*, 139 DAEDALUS 13 (2010).

185. JOHN PRATT & ANNA ERIKSSON, *CONTRASTS IN PUNISHMENT: AN EXPLANATION OF ANGLOPHONE EXCESS AND NORDIC EXCEPTIONALISM* (2012).

186. John Pratt, *Scandinavian Exceptionalism in an era of Penal Excess: Part 1*, 8 BRITISH J. OF CRIMINOLOGY 119, 122 (2008).

187. Sunanda Creagh, *Nordic prisons less crowded, less punitive, better staffed*, THE CONVERSATION (Mar. 19, 2013), <http://theconversation.com/nordic-prisons-less-crowded-less-punitive-better-staffed-12885> [<http://perma.cc/LPB9-NZ82>].

188. Pratt, *supra* note 186, at 120.

life as closely as possible to prepare the individual for release. [Further] . . . between 20 percent and 30 percent of all inmates serve their time in open prisons. These institutions allow inmates to work or attend school/training, purchase groceries, cook meals, own a car, and participate in other aspects of normal life. Numerous differences exist between U.S. and Scandinavian criminal justice systems: Recruitment, training, and health care are provided in the community (not in the prisons); inmates have input in prison policies; there is limited violence; and inmates are given individual cells. Essentially, then, many Scandinavian inmates are working toward reentry after their admission to prison, whereas in the United States, inmate reentry is just beginning to gain serious traction.¹⁸⁹

The aim of the Norwegian sentencing and prison system is to reduce the rate of reoffending, and it is thought this is best achieved by making the prison experience as close as possible to living in the general community.¹⁹⁰ This practice is achieving outstanding success, with recidivism as low as 20%.¹⁹¹

It is too ambitious to expect the United States to quickly move towards a Scandinavian ethos of incarcerating; such a change would take decades to evolve and implement and in reality is unlikely in the foreseeable future. It is, however, less ambitious to seek to make incremental reform towards this end. In our view, the ideal starting point is access to the internet. The advantages of this from the perspective of prisoners are profound.

2. Education to Reduce Recidivism

As noted earlier, prisoners have either no access or only a rudimentary level of access to the internet. This is undesirable for a number of reasons. The first is that it limits their rehabilitative prospects. Each year, according to a 2014 report by the RAND Corporation, more than 700,000 prisoners are released from United States prisons. Yet, within three years of release, 40% of these former prisoners—around 300,000 individuals—commit new crimes or otherwise violate the terms

189. Matthew DeMichele, *Electronic Monitoring: It Is a Tool, Not a Silver Bullet*, 13 CRIMINOLOGY & PUBLIC POL'Y 393, 394-95 (2014).

190. Pratt, *supra* note 186.

191. Marcello F. Aebi & Natalia Delgrande, *Council of Europe Annual Penal Statistics: Norway*, COUNCIL OF EUROPE (2010), <http://wp.unil.ch/space/publications/recidivism-studies> [<http://perma.cc/3L2Z-LF9C>]; Jessica Benko, *The Radical Humaneness of Norway's Halden Prison*, N.Y. TIMES MAGAZINE (Mar. 26, 2015), http://www.nytimes.com/2015/03/29/magazine/the-radical-humaneness-of-norways-halden-prison.html?_r=0 [<http://perma.cc/L8JC-ZVLX>].

of their release, leading to their reincarceration. Key factors in this recidivism are “lack of knowledge, training, and skills to support a successful return” to the community. Ex-offenders, on average, are markedly less educated and literate than the general population. In the United States, RAND reports 37% of inmates in state prisons had not completed their high school education in 2004, compared with 19% of the general population aged 16 and over. Around 16% of state prisoners had completed high school, compared with 26% of the general population; and less than 15% of state prison inmates had completed some postsecondary education, compared with 51% of the general population.¹⁹²

Educating offenders is an important rehabilitative tool. The internet is the most effective means of providing education to prisoners. The value of education and training in a correctional context is considerable and rarely disputed. According to RAND, inmates participating in correctional education programs had on average a 43% lower chance of reoffending, equating to a reduced recidivism risk of 13 percentage points overall. Prisoners who participated in academic or vocational education programs in prison are also 13% more likely to obtain employment upon their release. As the direct costs of reincarceration far exceed the direct costs of providing correctional education, RAND estimated that correctional education programs need to reduce the three-year reincarceration rate by a maximum of only 2.6 percentage points to cover their costs. These costs, RAND states, are met 5 times over, by conservative estimates.¹⁹³

The RAND Corporation’s report into the effectiveness of prisons’ correctional education programs was based on a survey of correctional education directors in all 50 states, of which 42 states returned full information. This enabled RAND to determine that in 2013, most states offered prisoners adult basic education, a General Education Development (GED) or high school equivalency certificate, and special education courses. A clear majority of states—32—also provide higher-level courses, such as adult secondary and postsecondary education. In 28 states, postsecondary education costs are primarily met by the inmate or their families, while a minority of states also use state funding and college or university funds. In 24 states, adult inmates without a high school diploma or GED are required to participate in educational programs, and in 15 states adults below certain grade levels are required to undertake formal study.¹⁹⁴

192. Davis et al., *supra* note 96, at xiv.

193. *Id.* at xv-xvi.

194. *Id.* at xviii.

The provision of education and training programs in prisons in the United States is financially precarious, and the recession brought on by the Global Financial Crisis in 2008 led to an overall 6% average decrease in correctional education budgets between 2009 and 2012. This decreased capacity led to an overall decrease in the number of adult students in prisons (around 4% on average) as well as reduced course offerings in 20 states.¹⁹⁵

The budgetary challenges of providing formal education in prisons heighten the importance of making proper and maximum use of ICT and the internet in these programs. In the general community, RAND reports, “distance learning and online instruction are growing trends,” while “computer-assisted instruction” is also essential to the provision of individually tailored “instruction and coursework.” The importance of computing skills for study and future employment are increasingly recognized by state correctional education officials, and 24 states offer a Microsoft Office certification in their vocational education programs.¹⁹⁶

Nevertheless, as we have seen, ICT and especially the internet are fundamentally underused in prison education programs. Such minor and patchy use of ICT and the internet in prison education is, even in the short term, unsustainable, simply because formal education and training in the general community is and will continue to increasingly be delivered with this technology, as this is certainly the most efficient means of delivery in the prison setting. Students without access to computers and online curriculum, and without the skills to use these platforms, will not be able to keep up with students who do have such access, or even to pass their courses. The GED, for example, is the “predominant way that inmates earn their high school equivalency diplomas” and “a prerequisite for many vocational training programs.” The 2014 GED exam relies “on a new test delivery model—namely, computer-based testing,” replacing “the old paper-and-pencil exam.” RAND found that 14 of the 31 states planning to run the 2014 GED exam expected computer-based testing to discourage an appreciable number of inmates from taking the exam, and a further 16 states anticipated recording a decrease in GED completion rates. Nineteen states reported concerns about prison education staff receiving adequate training to teach the GED exam, while 12 states reported that limited computer access would likely “preclude students from taking the new GED exam.”¹⁹⁷

195. *Id.* at xix.

196. *Id.*

197. *Id.* at xx.

RAND concluded its report into correctional education programs by reminding readers that debate about the provision of education in prisons had to move beyond questions of whether such education is cost effective toward improving knowledge about how to most effectively run such programs. It specifically recommended new research on leveraging ICT to “enhance instruction in correctional settings.”¹⁹⁸

The D.O.E. has noted these recommendations, including in a 2015 special report, *Educational Technology in Corrections*. The report states that improved use of ICT promises “to enhance and expand correctional education within constrained resources,” and the report warns that education programs in correctional facilities are “being left behind” by continuing advances in ICT-facilitated general education program delivery.¹⁹⁹

In order to properly deliver education to prisoners, it is important that pedagogy is modernized and improved. The D.O.E. recommends that instructors be equipped with the tools to enhance prisoners’ classroom experience. As in non-custodial settings, it is increasingly important that individual students receive personalized instruction and experience blended learning, flipped classrooms, and other contemporary pedagogical techniques delivered by instructors who have been given access to professional development resources and communities of teaching practice. This will require hiring instructors and staff who are comfortable with ICT, as well as regular training on advancements in ICT in education and security procedures. Instructors will have to be provided with restricted internet access in classrooms so that they can create repositories of up-to-date resources and encourage collaborative learning.²⁰⁰

Education and rehabilitation enhancements for prisoners stemming from internet availability in prison have convinced the D.O.E. that prisons must make greater use of ICT and the internet to improve inmates’ life, educational opportunities, and professional opportunities when they are released into the community. The D.O.E. recommends that advanced ICT be used to help inmates develop and improve their computer and digital literacy skills, both inside and outside correctional education classrooms. Importantly, the D.O.E. states that prisons will have to permit students to use secure personal mobile devices in and out of the classroom and provide them with restricted internet access. Prisons should also use ICT

198. *Id.* at xxii.

199. Tolbert et al., *supra* note 98, at v, 1.

200. *Id.* at 22.

to provide students with access to online assessments and provide more assistance to instructors and administrators so they can better measure student learning and evaluate in-prison education programs. The D.O.E. notes this will necessitate the creation of online networks with assessment vendors, as well as internet access before and after assessments are submitted to upload test results. In addition, assessment will increasingly need to occur exclusively online, mirroring the current direction of non-custodial education.²⁰¹

The provision of up-to-date content is contingent on prisons being appropriately networked. Students should be provided with opportunities to learn inside and outside of their classrooms. Students also need to be able to share data (such as academic transcripts) with other educational institutions and community-based programs. It is not practical, the D.O.E. suggests, to attempt this without providing inmate students with mobile devices that give students access to curricula and pedagogical practices that are aligned with noncustodial education and training. Ideally, prison systems would forge data sharing agreements with community based education providers. ICT should be used to track educational attainment and post-release outcomes to determine the effectiveness of correctional education as it contributes to job placement and retention, as well as recidivism. Further, states should look to create consortia for open resources, enabling groups of educators to develop online content and platforms, and share collective experiences to improve the provision of education in prisons with ICT.²⁰² The first step to facilitating this is making the internet readily available in prisons.

3. The Internet Facilitates Prisoners to Re-enter Society

The importance of the internet and education to prisoners is difficult to overstate. The importance of access to the internet, however, goes well beyond educational advantages. The internet is a key tool for easing inmates' re-entry into the community, for it is indispensable to any effort to research employment opportunities, apply for jobs and benefits, enroll in college, search for housing, and maintain and develop personal relationships in the broader community. As the D.O.E. states, "most, if not all, of these prerelease activities require some form of computer or telecommunication device and Internet access."²⁰³

201. *Id.* at 21-22.

202. *Id.* at 23.

203. *Id.* at 2.

This view is widely shared by prison administrators. The director of Inmate Education Programs at the California Office of Correctional Education, Brant Choate, told the D.O.E. that correctional agencies that are “serious about preparing incarcerated individuals for release, they cannot ignore the technological advances, including the Internet, occurring outside of the facility walls.”²⁰⁴ Nick Hardwick CBE, Her Majesty’s Chief Inspector of Prisons, similarly stated to the United Kingdom Prison Reform Trust:

Think how much use of the internet and computers has changed for most of us over the last few years—staying in touch with family and friends; applying for a job, housing and a host of other services; managing our finances; obtaining information and education—laptops, tablets, PCs, smart phones, the cloud . . . Most prisoners are excluded from all this and are placed at the far end of the digital divide. Neither helped to obtain any of the benefits these new technologies bring nor supported and supervised to avoid its risks. We can’t go on with prisons in a pre-internet dark age: inefficient, wasteful and leaving prisoners woefully unprepared for the real world they will face on release. I have not met one prison professional who does not think drastic change is needed.²⁰⁵

Prisoners agree. Inmates incarcerated for lengthy periods “can be distressed by their sudden exposure” to advanced technology on their release, particularly if they are not prepared in any way for it. As one inmate released in the United States in 2011, after 13 years in jail, stated: “coming into this new technology for me was just—it was like going from the old ages to Star Wars. It was very overwhelming.”²⁰⁶

Corrections professionals have an especially acute appreciation of the role of ICT and the internet in contemporary life, as they are mindful of the challenge computer literacy poses for medium and longer-term prisoners’ successful reintegration into the general community. This challenge was described succinctly by a prison manager surveyed by the Prison Reform Trust and the Prisoners Education Trust in the United Kingdom in 2013. On release from prison, a former inmate’s “first port of call” could very well be “a fully computerised job centre with touch screen technology.”²⁰⁷ En route to the job center, the former prisoner may experience considerable difficulty trying to purchase “an automated train

204. *Id.* at 8.

205. Nina Champion & Kimmet Edgar, *Through the Gateway: How Computers Can Transform Rehabilitation*, PRISONER’S EDUCATION TRUST, iii (2013), <http://www.prisonreformtrust.org.uk/portals/0/documents/through%20the%20gateway.pdf> [<http://perma.cc/4ZCP-ZBDC>].

206. Tolbert et al., *supra* note 98, at 2.

207. Champion & Edgar, *supra* note 205, at 5.

ticket,”²⁰⁸ and may later be confounded by “a self service check out till in the supermarket.”²⁰⁹ The manager further noted:

Automation of our everyday lives will increase year on year. For most this is an acceptable learning curve that we adapt to on a daily basis. For long term prisoners this is a complete and instant life change. Without preparation and appropriate training, they may find it difficult to cope. Training for them is essential.²¹⁰

4. Internet Access Improves the Behavior of Prisoners

One important result of improving prisoner access to ICT and the internet is that access has been shown to be a powerful behavioral tool within jails. Philadelphia prisons, for example, use an incentive-based learning platform to reward users with points and certificates for reaching educational and behavioral benchmarks; these points can then be exchanged for free entertainment options. Authorities have found the scheme is engaging even those prisoners who were previously uninterested in education or were poorly behaved.²¹¹

The Ohio Department of Rehabilitation and Correction is one system that provides prisoners with a degree of internet access. In 2005, authorities began giving restricted internet access, in spite of their misgivings about the security implications of doing this. Internet access occurs under direct supervision and is granted only on the condition of participation in an approved education or training program that requires internet access. The Ohio Central School System Superintendent or his or her proxy approves the websites that inmates may access. Inmates are provided with internet access only if they record no rule violations for 90 days and then keep a clear record while participating in the program. No inmate with an active security threat or suspect affiliation is given internet access. Inmates serving time for sexually oriented offenses, or any crime involving the use of the internet or a computer, are also not permitted to participate in the program. While security requirements make the updating of course content an arduous process, the department is looking to develop a portal with direct internet access to help education staff more easily add content and resources and upload and download students’ work. The department reports that participating inmates’ digital literacy skills and

208. *Id.*

209. *Id.*

210. *Id.*

211. Tolbert et al., *supra* note 98, at v, 1, 16.

confidence are growing, and that more than 80% of students complete their courses.²¹²

5. Improving the Lives of Relatives and Friends

The deprivation of liberty that stems from incarceration necessarily impairs relationships. This is especially true given that most prisons are located in remote regions and prisoners have very limited visiting rights.²¹³ A report by Bernadette Rabuy and Daniel Kopf notes that visits by family members to prisoners are rare. Fewer than 33% of prisoners receive a visit from a loved one each month, and only 70% make contact by telephone with a loved one on a weekly basis.²¹⁴ Part of the reason for these low visitor rates is likely distance, as the average state prisoner is incarcerated 100 miles from home, and the average federal prisoner is incarcerated 500 miles from home.²¹⁵

The harm stemming from this damages not only the offender, but also his or her relatives, and to a lesser extent, his or her friends. This damage should be minimized, especially from the perspective of relatives and friends of inmates as they are blameless. The hardship they endure as a result of being detached from their father, mother, or child is solely a by-product of the offense that has been committed by their relative and the contact-limiting nature of the prisons. The fact that this harm is caused incidentally as a result of the prison environment, as opposed to being intentional, does not diminish its reality and intensity.²¹⁶

All preventable harm should be avoided or minimized. Access to the internet would enable prisoners to have extensive real-time and meaningful contact with their relatives. This would facilitate the continuation of the development of these relationships in a manner that enhances the quality of the lives of the relatives of prisoners while

212. *Id.* at 13, 29-30.

213. For a discussion of visitation rights by family and other people, see *A Jailhouse Lawyer's Manual*, COLUM. HUM. RTS. L. REV., Ninth Edition 2011, at 517-26. The capacity to make telephone calls can and often is severely limited. *Id.* at 530-32.

214. Bernadette Rabuy & Daniel Kopf, *Separation by Bars and Miles: Visitation in state prisons* (Oct. 20, 2015), <http://www.prisonpolicy.org/reports/prisonvisits.html> [<http://perma.cc/3EP4-MKD8>].

215. Nancy G. La Vigne, *The cost of keeping prisoners hundreds of miles from home*, URBAN INST. (Feb. 3, 2014), <http://www.urban.org/urban-wire/cost-keeping-prisoners-hundreds-miles-home> [<http://perma.cc/34KF-HZXL>].

216. See Mirko Bagaric & Theo Alexander, *First-time Offender, Productive Offender, Offender with Dependents: Why the Profile of Offenders (Sometimes) Matters in Sentencing*, 78 ALB. L. REV. 397 (2015).

simultaneously reducing the extent to which their interests are collaterally damaged by the misdeeds of others.

B. Negating Key Objections to Prisoner Access to the Internet

1. Preventing Internet Misuse

Of course, there are potential problems with providing internet access to prisoners, most notably the concern with providing prisoners a medium through which they could commit more crime, including harassing and threatening victims and witnesses. It is this concern that has been the main reason for the lack of current access to the internet by prisoners. The RAND Corporation's analysis of ICT and internet provision in prisons in the United States notes that the primary inhibitor of greater use of ICT in education remains concern about security breaches.²¹⁷

The Australian experience shows that prison authorities are wary of prisoners breaching the rights of and harassing free citizens, especially victims of crime. They are also sensitive to media exploitation of public fears of these occurrences. Prisoner misuse of pen pal programs, for example, has been highlighted by prominent media organizations, which in turn has discredited the entire notion of prisoner access to ICT.

In August 2014, the *Adelaide Advertiser* reported that Snowtown serial killer Robert Wagner and other murderers had set up profiles on the Prison Pen Pals website, prompting the Department of Correctional Services to request the website to remove the profiles of Wagner and four other inmates.²¹⁸ And on April 27, 2015, the "Today" program on the Nine television network aired a story that was sensationalist in its approach, drawing attention to the use of internet pen pal services by another serial killer, Julian Knight, and other violent criminals. The story prompted state and territory correctional services to advise the network that they disapproved of internet pen pal services.²¹⁹

217. Other significant inhibitors include insufficient funds, as well as staff capacity to purchase, implement, maintain, and monitor advanced ICT. Tolbert et al., *supra* note 98.

218. Andrew Dowdell, *Snowtown Killer Robert Wagner and other SA inmates' Prison Pen Pals profiles removed after Corrections Department asks website to respect victims*, THE ADVERTISER (Aug. 19, 2014, 3:16 AM), <http://www.adelaidenow.com.au/news/south-australia/snowtown-killer-robert-wagner-and-other-sa-inmates-prison-pen-pals-profiles-removed-after-corrections-dept-asks-website-to-respect-victims/news-story/6c0983efdce170e5e81821a87162dffa> [<http://perma.cc/6T3Y-3TJ7>].

219. *Prison Pen Pals*, 9NOW (Apr. 27, 2015), <http://www.9jumpin.com.au/show/today/today-takeaway/2015/april/prison-penpals/> [<http://perma.cc/SW53-6VKB>].

To date, security concerns have made ICT and internet provision to prisoners cumbersome and far less effective than they otherwise might be. Case studies of prisons using isolated local servers show that much time and effort must be spent by authorized educators identifying suitable content and then obtaining whitelisting on a case-by-case basis. Considerable time is also spent obtaining permission from publishers to download web pages. Further, those prisons that provide access to resources in classrooms only substantially limit educational opportunities for individual inmates. Prisons using point-to-point secure line systems have to install endpoint security software in every computer lab, but security updates interfere with access to online course content.²²⁰

However, the security concerns are generally overrated and certainly do not warrant a blanket internet ban. While prisoners are known to have behaved in these ways when provided with access to the internet, this cannot justify a blanket ban on internet access. Undoubtedly, there are some prisoners who will never, or very seldom, be able to be trusted with such access, but they are in the minority. Further, and more importantly, tools to manage internet access for non-violent or genuinely reforming prisoners are available. In addition, the deprivation of the right to access the internet should, in the words of the United Nations Rapporteur, “respect the principles of necessity and proportionality.”²²¹

Presently, there are numerous instruments and other techniques and policies that prison authorities in the United States use to provide ICT to prisoners while managing security risks. Communications with family are managed with tools such as the Federal Bureau of Prisons’ (BOP) Trust Fund Limited Inmate Computer System (TRULINCS). TRULINCS permits prisoners to securely exchange emails with the general public. Only prisoners and their contacts that have consented to monitoring and have been approved by the BOP can use the service. Only text messages of up to 13,000 characters (approximately two pages) are permitted. However, TRULINCS does not permit attachments or internet access.²²²

However, the reality is that modern technology provides far more effective solutions to possible internet abuse by prisoners. This is a matter noted by Choate and Hardwick, who acknowledge that security breaches are a risk with ICT use in prisons and particularly by prisoners. However, “the technology itself allows every key stroke to be monitored and access can be risk-assessed.”²²³ As discussed above, internet endpoint security

220. Tolbert et al., *supra* note 98, at 12, 16.

221. *Id.* at 22.

222. *Id.* at 4.

223. *Id.* at 8; Champion & Edgar, *supra* note 205, at iii.

solutions allow for total control over what inmates can access, and can allow for complete, real-time monitoring of every search and keystroke of a person when they are using the internet. This monitoring can cover every single type of interaction that an inmate has via the internet, including web accesses, analysis of the sites visited, nature of searches undertaken, and full text recognition and analysis of all information sent and received. Artificial intelligence techniques are now such that not only can literal matches be made of problematic language in emails or troubling search terms used in search engines, but also semantic meaning can be extracted from the entire corpus of a document. The current approaches use a combination of technologies—typically a combination of natural language processing via rules and finite state machines, hidden Markov models, and probabilistic search—and has been shown to be effective at extracting meaning from texts as diverse as Wikipedia, biomedical texts, and open-ended search queries, among many, many others.²²⁴ Monitoring techniques are sophisticated enough to automatically distinguish between likely criminal activity, letters home, the creation of problematic relationships, and the normal daily interactions of life. And finally, any endpoint security solution can provide for the targeted or random flagging of inmate’s internet activity for a human guard to investigate if there is inappropriate activity taking place.²²⁵

Of course, there will be the occasional security or use violation that will occur as a result of prisoners having access to the internet. The solution to this is obvious; the prisoner who committed the breach should have internet use suspended or cancelled, with the possibility of some other punishment for the breach of the trust given. It is a grossly disproportionate response to punish all prisoners for the possible or actual infractions of a few other inmates.

As a related matter, it is relevant to note that providing internet to prisoners will lead to persuasive calls to enable them to have access to cell phones. Unlike the internet, technology does not exist for a cost efficient real-time or near real-time monitoring of calls made with the use of cell phones, although at the national security level this technology has been

224. See, e.g., Patrick Arnold & Erhard Rahm, *Automatic Extraction of Semantic Relations from Wikipedia*, 24 INT’L J. OF ART. INTELL. TOOLS 1 (2015); Roxana Girju et al., *Automatic Discovery of Part-Whole Relations*, 32(1) COMPUTATIONAL LINGUISTICS 83 (2006); Adriana Badalesu & Dan Moldovan, *A Semantic Scattering Model for the Automatic Interpretation of English Genitives*, 15 NAT. LANG. ENG. 215 (2009); OI YEE KWONG, *NEW PERSPECTIVES ON COMPUTATIONAL AND COGNITIVE STRATEGIES FOR WORD SENSE DISAMBIGUATION* (Springer eds., 2013).

225. Champion & Edgar, *supra* note 205.

available for some time and is likely to make its way into the prison sector eventually.²²⁶

2. Prisoners and Pornography

A large amount of pornography is available on the internet, and it is likely that proposals for prisoner internet access will be met with objections relating to the possible downloading of pornography in prison.²²⁷ However, in principle and pragmatically, these objections can be surmounted. Adult pornography is not intrinsically or instrumentally harmful. Moreover, prisoners in some states can have conjugal visits.²²⁸ Logically, and emotively, if prisoners can have sex it is illogical to deny them the capacity to watch sex. This is not to deny that emotive arguments may be made against prisoners having access to pornography material. The reality is, however, that the force of the counter argument is so overwhelming that these emotive concerns can be negated.

VI. REDUCING SENTENCES FOR INTERNET-DENIED PRISONERS

If our second proposal is not endorsed and prisons remain internet-free zones, then we suggest that the law should be reformed such that the prison experience is regarded as being more burdensome than we currently provide for. The internet is such a fundamental part of contemporary life that it is a significant burden to be denied access to. It shuts out much of what is meaningful to many people. It makes the

226. Edward Snowden's revelations, commonly referred to as the "Wikileaks papers," exposed the scale of monitoring of the U.S. National Security Agency of internet traffic and telecommunications. Wikileaks demonstrated, for example, that the NSA monitored every single phone call in the Bahamas and in Afghanistan, and had tapped the cellphones of various heads of state including the President of Brazil and the Chancellor of Germany. *See, e.g.,* Loek Esser, *Assange names country targeted by NSA's MYSTIC mass phone tapping program*, PC WORLD (May 23, 2014), http://www.pcworld.idg.com.au/article/545941/assange_names_country_targeted_by_nsa_mystic_mass_phone_tapping_program/ [<http://perma.cc/2YJQ-629W>]; Sean Gallagher, *Director of national intelligence: Snowden forced "needed transparency"*, ARS TECHNICA (Sept. 10, 2015), <http://arstechnica.com/tech-policy/2015/09/director-of-national-intelligence-snowden-forced-needed-transparency/> [<http://perma.cc/762Z-HYK9>].

227. Child pornography is rightly banned from the internet and hence association with this usage is not relevant.

228. The incidence of conjugal visits is reducing, but not because of concerns relating to sexual relations; it is as a result of prison budget measures and issues and concerns about babies being born as a possible result of the visit. *Research Finds that Conjugal Visits Correlate with Fewer Sexual Assaults*, PRISON LEGAL NEWS 28 (May 19, 2014), <https://www.prisonlegalnews.org/news/2014/may/19/research-finds-conjugal-visits-correlate-fewer-sexual-assaults> [<http://perma.cc/ARB8-CN8U>].

prison experience even more difficult. People choose to spend considerable portions of their day on the internet; however, there is no ready substitute for this in prison.

It could be countered that the inability of prisoners to access the internet is not a relevant deprivation, given the obvious observation that this is an incidental consequence of being imprisoned. However, there are two reasons why this does not undercut the premise that even in the prison setting internet denial is a meaningful hardship. First, as we have seen, there is no insurmountable reason why prisoners cannot have internet access. Secondly, even if one accepts the current status quo regarding the prohibition on the internet in prisons, the fact that the deprivation is an *incident* of being incarcerated (as opposed to being a direct and intentional form of deprivation) does not alter the reality of the hardship.²²⁹

It is difficult to quantify how much more onerous a prison sentence should be considered in the internet age. The reasoning that was employed above to interchange the internet sanction with prison is not fully apposite in determining how much more difficult prison life is nowadays given the extent to which the internet has permeated human activity. This is because the confines of prison necessarily prevent a person from enjoying the full functionality of the internet, such as the capacity to pursue employment opportunities and shop online. However, many functional opportunities

229. A claim to the contrary could only be grounded on the basis of the doctrine of double effect, which provides that it is permissible to perform an act having two effects, one good (in this case the deprivation of liberty) and one bad (such as incidental human rights violations), where the good consequence is intended and the bad merely foreseen. There is proportionality between the good and bad consequences, and those consequences occur fairly simultaneously. See THOMAS NAGEL, *THE VIEW FROM NOWHERE* 179 (1986). The preferable view is that there is no inherent distinction between consequences that are intended and those that are foreseen. We are responsible for all the consequences we foresee but nevertheless elect to bring about. Whether or not we also “intend” them is irrelevant. Underlying the doctrine, and the only coherent basis for the distinction adverted to by the doctrine of double effect, is nothing more than the consequentialist view that it is permissible to do that which is “merely foreseen” if the adverse consequences of the act are outweighed by the good consequences that are “intended.” The doctrine of double effect is devoid of an overarching justification and cannot be used to ignore the full impact of imprisonment. In assessing the impact that imprisonment has on offenders, it is necessary to take into account the full negative consequences that the sanction has on the well-being of offenders. This is the approach taken in assessing the utility and effect of other events, forms of behavior, and stimuli on individuals. For example, in evaluating the desirability of surgery, doctors, and patients consider not only the intended outcomes of the procedure but also unintended and unwanted but likely side effects. Similarly, governments providing health messages to the community on matters such as the consumption of alcohol or fast food factor in the intended benefits of such consumption and also the unwanted possible health complications that arise. It would be absurd if in assessing the impact of events or activities on people, the only applicable consideration was the intended outcome of that event. Accordingly, lawmakers and courts need to pay regard to the cumulative likely impact on the deprivations to which prisoners are subjected, irrespective of whether or not the harms are deliberately inflicted.

that are associated with the internet, such as maintaining contact with friends, keeping up-to-date with current events, and acquiring new knowledge, are still attainable even behind prison walls. We suggest that if these functionalities are denied, then prisoners should have a sentence reduction in the order of 20%.

There is, however, one caveat to this proposed discount. As we have seen, serious sexual and violent offenses cause considerable harm to victims. Offenders who commit these offenses are deserving of considerable punishment because this is consistent with the gravity of their offending. Moreover, these offenses are disproportionately committed by recidivists.²³⁰ The principle of proportionality and need for community protection in relation to serious sexual and violent offenders outweigh the interests of the offenders in these circumstances, thereby curtailing the argument for a discount for these offenders on the basis that they cannot access the internet.

VII. CONCLUSION

The internet has markedly shaped human behavior and activity over the past two decades. However, prison walls seem to have blocked out technological advances from permeating the sentencing system. From the perspective of criminal sanctions, society is frozen in time to a pre-internet age. In this Article, we have made three key recommendations for technology-related sentencing reform.

First, we proposed that denial of access to the internet should be developed as a discrete sentencing sanction, which can be invoked for relatively minor offenses and used as a substitute for all prison terms of one year or less. It could also be used for non-violent and non-sexual offenses, which currently attract imprisonment for more than one year; this would provide an efficient and effective means of punishing offenders, while saving billions of taxpayer dollars and not jeopardizing community safety.

Secondly, we argued that prisoners should have unfettered access to the internet. The current near-blanket prohibition that prisoners have in relation to the internet is undesirable for a number of reasons: it punishes offenders more heavily by increasing their level of anxiety and distress; it punishes the relatives of inmates by impeding regular and meaningful communication with them; it punishes prison guards and administrators by denying them a tool that might improve prisoner behavior; and, most

230. Bagaric, *From Arbitrariness to Coherency in Sentencing*, *supra* note 21.

of all, it punishes the community by curtailing access to prisoner education, which is the single best method of reducing future criminal offending. There are obvious risks associated with enabling inmates to have unfettered access to the internet, especially the risk that the prisoners may use the internet to harass and intimidate individuals in the community, including former victims. Modern technology can provide a near failsafe solution to this risk.

If the second recommendation is not adopted, and prisoners continue to be denied access to the internet, there should be an acknowledgement that the burden of imprisonment is greater than is currently accepted. The internet is now such an ingrained and important aspect of people's lives that prohibiting its use is a cause of considerable unpleasantness. This leads to our third proposal, which is that continued denial of the internet to prisoners should result in a recalibration of the pain of imprisonment, such that a sentencing reduction, in the order of approximately 20%, should be conferred to prisoners.

The proposals in this Article, if implemented, would for the first time meaningfully infuse technological developments into the sentencing system. The changes would make the sentencing process both fairer and more efficient, saving billions of dollars to the community.