

THE SHOVE WITHOUT A NUDGE: BANNING THE INTERNET IN COLLEGE CLASSROOMS

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Excessive in-class Internet use has led several professors to ban laptops from classrooms; some schools have turned off wireless networks during class time. In this Essay I argue that administrators should pursue methods of curbing surfing behavior without banning Internet use entirely. I further argue that although many students spend too much time surfing the Web during class (because students often fail to perceive the actual costs of Internet use), there are a number of pedagogical benefits associated with in-class surfing. Schools and professors should therefore encourage students to make better use of class time without eliminating either the positive aspects of Internet access or students' freedom of choice.

INTRODUCTION

As laptops become increasingly ubiquitous and cell phones increasingly powerful, in-class Internet use will continue to expand. Internet use can distract the direct user and others in the classroom. One study has found a negative correlation between in-class surfing time and grades.¹ The University of Chicago Law School and other schools have met increased surfing by switching off wireless networks during class-time.

Simply cutting off local wireless networks, however, will not solve the problem, especially as more students use mobile broadband networks and high-end cell phones to access the Internet. Furthermore, there are pedagogical benefits to allowing Internet access in the classroom. Therefore, removing Internet access might not only be an ineffective way to limit in-class surfing, but for some students it might lower the quality of higher education.

In this Essay I draw on Professors Richard H. Thaler and Cass R. Sunstein's concept of libertarian paternalism to argue that there are effective ways to curb Internet use without banning it entirely. By applying the findings of behavioral economics to in-class Internet surfing, I hope to add a

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¹ Michael Grace-Martin & Geri Gay, *Web Browsing: Mobile Computing and Academic Performance*, 4 EDUC. TECH. & SOC'Y 95, 104 (2001) (finding in a controlled experiment that "the more time computer science students spent continuously browsing during class lectures, the lower their final grades tended to be").

new perspective to the debate.²

I. THE VIRTUES AND VICES OF THE INTERNET

Professor Ian Ayres of Yale Law School described an interesting skit put on by students at his school.³ The students arranged their desks to resemble a classroom. Nearly every student took notes by typing on his or her laptop. One student laid out a deck of cards on his desk. He was playing solitaire. When the professor asked the student what he was doing, the student simply replied that his laptop was broken. According to Professor Ayres, “there was simultaneously a roar of laughter from the student body and a gasp from the professors...”⁴

In-class laptop use and, more specifically, surfing the Internet have a number of positive and negative effects on students, professors, and potentially entire schools. As a student in an undergraduate econometrics class, I learned some of the effects of Internet use firsthand.

A. *Effects on Students*

1. Positive Effects

In an attempt to save money, many students – including me – purchased used copies of the textbook. Our professor also possessed a second-hand copy. He directed us to open our books to a page containing the formula for the normal distribution. One perceptive student pointed out that the equation in the book differed from the formula he had studied in another statistics class. Our professor did not believe that the equation was incorrect. After all, it was in the text! Students with new copies of the textbook pointed out that the formula in their book was different. Our professor soon became quite flustered (it was his first semester teaching). A few students eventually researched the topic on the Internet. They found that the older

² For other comments about laptops in law schools, see Kevin Yamamoto, *Banning Laptops in the Classroom: Is It Worth the Hassles?* 57 J. LEGAL EDUC. 477 (2007) (arguing that, in general, it may be wise “to ban or heavily restrict [laptop usage in] classroom[s]”); Jana R. McCreary, *The Laptop-Free Zone*, 43 VAL. U. L. REV. (forthcoming 2009), available at <http://ssrn.com/abstract=1280929> (noting that laptops primarily distract others, but the restriction is mainly limited to those who do not use laptops); Lorenzo A. Trujillo, *The Relationship between Law School and the Bar Exam: A Look at Assessment and Student Success*, 78 U. COLO. L. REV. 69, 73 (2007) (finding that “the introduction of laptops in the classroom coincides with the national decline in bar passage rates”).

³ Ian Ayres, *Surfing the Class*, N.Y. TIMES, FREAKONOMICS BLOG, May 13, 2008, <http://freakonomics.blogs.nytimes.com/2008/05/13/surfing-the-class/>.

⁴ *Id.*

version of the book indeed contained the wrong formula.

The Internet helped us correct an errant professor. He came to class better prepared after this experience. Furthermore, the Internet allowed us to become active learners rather than passive note-takers. In-class Internet has other benefits.

As Professor Ayres noted, allowing laptop and Internet use may have a positive externality because of its effect on professors.⁵ In a world without distractions, professors monopolize students' time during class. Internet use (and other distractions) forces teachers to compete for their students' attention. This encourages professors to introduce excitement into the classroom, which often increases students' ability to retain information.⁶

Some classes, including the economics courses I currently teach, use software found exclusively online.⁷ It is at times useful for students to access the relevant program during class discussions. Removing access eliminates a valuable learning resource.

In addition, although the Internet can be a distraction, many of those who surf do so in lieu of other distractions, such as sleeping, daydreaming, and doodling. It is a rare student who always pays attention in class. If surfing allows students to retain more information than, say sleeping, surfing may be a better distraction.

In fact, distractions may not be such a bad thing after all. According to a recent study, browsing the Internet at work *increases* job productivity.⁸ Workers who spend up to 20 percent of their total office time surfing are 9 percent more productive than those who do not surf. Professor Brent Coker of University of Melbourne stated, "People need to zone out for a bit to get back their concentration...short and unobtrusive breaks, such as a quick surf of the internet [sic], enables the mind to rest itself, leading to a higher total net concentration for a days work, and as a result, increased productivity."⁹ Although school is not the workplace (because there are breaks between classes already), the study's results may still apply to the classroom. If Julie, for example, surfs for ten minutes during class, she may be able to learn

⁵ *Id.*

⁶ See generally CHARLES C. BONWELL & JAMES A. EISON, ACTIVE LEARNING: CREATING EXCITEMENT IN THE CLASSROOM (1991).

⁷ My class uses *MyEconLab*, published by Pearson Education. MyEconLab, <http://www.myeconlab.com> (last visited Apr. 22, 2009).

⁸ Brent L. Coker, *Freedom to Surf: The Productive Benefits of Workplace Internet Leisure Browsing (WILB)* (Univ. Melbourne, Working Paper, 2009), available at [http://www.deloosh.com.au/Blog/post/Freedom-to-Surf-The-productive-benefits-of-Workplace-Internet-Leisure-Browsing-\(WILB\).aspx](http://www.deloosh.com.au/Blog/post/Freedom-to-Surf-The-productive-benefits-of-Workplace-Internet-Leisure-Browsing-(WILB).aspx).

⁹ David Scott, *Freedom To Surf: Workers More Productive If Allowed to Use the Internet for Leisure*, UNIVERSITY OF MELBOURNE NEWS, April 2, 2009, <http://uninews.unimelb.edu.au/news/5750/>.

more from the remaining fifty minutes than if she attempts to pay attention for all sixty minutes.

A related point is that is unclear what effect in-class Internet use has on out-of-class surfing. If administrators ban in-class Internet use, students will likely spend more time outside of class on the Internet. This reduces the amount of time available for studying. Depending on the course, out-of-class studying may be as important (if not more important) than class time. Assuming students are good judges of the costs and benefits of surfing in class (which may not be true),¹⁰ allowing Internet use helps students to make the best use of their time.

Aside from the potential pedagogical benefits, granting classroom Internet access has job training and convenience benefits. At future jobs, students will likely have Internet access. Cutting off the Internet in law school does not prepare students to deal with on-the-job surfing temptations.

In terms of convenience, Internet access helps to conserve desk space. It allows students to “pull...up relevant rules during class.”¹¹ If applicable resources can be found online, students will not have as many heavy books to carry to class.

2. Negative Effects

Of course, in-class surfing has negative effects, too. Most importantly, multi-tasking hampers students’ learning abilities. In a controlled experiment (funded by Intel, ironically), Michael Grace-Martin and Geri Gay of Cornell University found a negative correlation between grades and time spent surfing the Web during class.¹² Unfortunately, their study failed to distinguish between time spent on germane sites and time spent on irrelevant sites, so it is possible that Internet use improved some students’ grades while hurting others.¹³

A common counterargument to the Internet’s possible detrimental effect is that students are paying for their education, and administrators should not paternalistically hinder students who want to waste their time and money. This line of reasoning ignores two important aspects of the problem. First,

¹⁰ See *infra* Part III.A.2.

¹¹ Anonymous student poster in response to Kashmir Hill, *Hey Teacher, Leave Those Kids (and Their Internet) Alone!* ABOVE THE LAW: A LEGAL TABLOID, March 25, 2008, http://www.abovethelaw.com/2008/03/hey_teacher_leave_those_kids_a.php.

¹² Michael Grace-Martin & Geri Gay, *Web Browsing: Mobile Computing and Academic Performance*, 4 EDUC. TECH. & SOC’Y 95, 104 (2001) (finding in a controlled experiment that “the more time computer science students spent continuously browsing during class lectures, the lower their final grades tended to be”).

¹³ *Id.* at 104.

students may not understand the true costs and benefits when deciding to ignore lectures – students may be irrational. I discuss the implications of irrationality below.¹⁴ An extreme form of irrationality may be addiction.¹⁵ Psychiatrist Dr. Jerald J. Block feels that excessive Internet use can become compulsive and has urged the American Psychiatric Association to include Internet addiction in its upcoming edition of the *Diagnostic and Statistical Manual of Mental Disorders*.¹⁶ Second, because laptop screens are vertical, the costs of surfing are not borne solely by those students who surf. Browsing the Web imposes external costs on others.

Web programmers design sites to attract attention, so surfing decreases surrounding students' ability to pay attention. The distraction is worse for those who do not use laptops themselves.¹⁷ According to an anonymous online poster, "it's tough to concentrate when some [expletive] in front of you is browsing Perez Hilton's bright pink site with pictures of your favorite celeb..."¹⁸ Furthermore, one student's decision to browse the Internet may encourage others to do the same. Dean Saul Levmore of the University of Chicago Law School cited this surfing externality as a primary reason for imposing the Internet ban: "Remarkably, [Internet] use appears to be contagious if not epidemic...Several observers have reported that one student will visit a gossip site or shop for shoes and within 20 minutes, an entire row is shoe shopping."¹⁹

Another externality is the effect surfing can have on class discussions. Students often learn from classmates' comments and questions. Surfing students are less likely to make beneficial comments, so their browsing decision imposes an external cost on others.

3. Net Effect

Allowing in-class Internet has positive and negative effects on students. According to neoclassical economic theory, students should mentally be

¹⁴ See *infra* Part III.A.

¹⁵ See generally PETER A. UBEL, *FREE MARKET MADNESS: WHY HUMAN NATURE IS AT ODDS WITH ECONOMICS – AND WHY IT MATTERS* (2009). But see Gary S. Becker & Kevin M. Murphy, *A Theory of Rational Addiction*, 96 J. POL. ECON. 675 (1988) (arguing that addiction is compatible with the rationality assumptions of economics).

¹⁶ Jerald J. Block, *Issues for DSM-V: Internet Addiction*, 165 J. AM. PSYCHIATRY 306 (2008), available at <http://ajp.psychiatryonline.org/cgi/content/full/165/3/306>.

¹⁷ See McCreary, *supra* note 2 (manuscript at 71).

¹⁸ Anonymous student poster in response to Kashmir Hill, *Hey Teacher, Leave Those Kids (and Their Internet) Alone!* ABOVE THE LAW, A LEGAL TABLOID, March 25, 2008, http://www.abovethelaw.com/2008/03/hey_teacher_leave_those_kids_a.php.

¹⁹ Jerry Crimmins, *U of C Law School Takes Classrooms Out of the Internet Age*, CHICAGO DAILY LAW BULLETIN, April 10, 2008, <http://www.law.uchicago.edu/news/cdlb-reclaim-classrooms/index.html>.

able to weigh the costs and benefits of surfing and reach privately optimal decisions. Still, privately optimal decisions may not be socially optimal decisions in the presence of externalities.

In a world of accurate perception, Nobel laureate Ronald Coase predicted that, barring prohibitively high transaction costs, producers and recipients of externalities will work together to arrive at optimal solutions.²⁰ Assume, for example, that Peter is a surfer and Paul is a student who tries to pay attention. The flashing images displayed on Peter's screen occasionally distract Paul. The default rule is surfing: students can surf unless explicitly told otherwise. In this world, if the externality is worth mitigating, Paul will display some willingness to act to eliminate the externality.²¹ Paul might pay Peter to reduce the amount of time he spends surfing. If there are many Peters and Pauls, however, the transaction costs are too high to reach an optimal solution via negotiation.²² Paul might instead decide to arrive at class sufficiently early to claim a front-row seat, thereby precluding the Peters from diverting his attention. In this world of accurate perception and moderately low transaction costs, school administrators do not need to worry about the surfing externality. Furthermore, because both positive and negative externalities are associated with surfing, it is uncertain whether current surfing levels are too high or too low.

Nevertheless, neoclassical economics may not be an accurate way to model in-class surfing decisions. As I argue below, students are especially susceptible to outcomes that do not maximize private welfare when deciding whether to surf or pay attention.²³ Thus, in my view, current surfing levels are too high.

It may worthwhile to mention one final, ambivalent effect that surfing can have on students. Allowing Internet use causes a shift in grade distribution, benefiting those with better self-control. Such students surf less and are likely to receive better grades. By disallowing surfing, administrators eliminate this sifting effect. This may be undesirable, depending on what behavior administrators wish to reward.

B. Effects on Professors and Universities

Despite universities' necessary focus on students, professors make

²⁰ Ronald H. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960).

²¹ See James M. Buchanan & Wm. Craig Stubblebine, *Externality*, 29 ECONOMICA 371 (1962) (arguing that only if people are willing to act to reduce externalities are they worth mitigating; these are Pareto relevant externalities).

²² This is similar to the problem of multiple polluters and hundreds of recipients. See, e.g., Alan Randall, *Coasian Externality Theory*, 14 NAT. RESOURCES J. 35 (1974).

²³ See *infra* Part III.A.2.

education possible. They bring acclaim to their respective schools though publishing and presenting important ideas. Internet surfing affects them, too.

As mentioned above, competition for students' attention encourages professors to become better teachers. Many professors would prefer no competition, so the teaching externality may benefit professors in the long-run (by making them better teachers), but not in the short-run. Furthermore, professors may receive any such benefits against their will.

The Internet also provides an additional teaching resource, (which I frequently use in my class), so unilaterally cutting off students' access may eliminate an effective teaching method.

Most professors have spent their lives teaching and learning. They are proud of their knowledge, and they wish to impart their expertise to others. Students who do not listen in class annoy professors. If the annoyance is sufficiently severe, professors may choose to teach at schools that have anti-Internet policies. Internet surfing rules, then, can have an impact on entire universities. Students who place a high value on surfing freedom, on the other hand, may choose schools that grant the right to surf. Nevertheless, given that such policies play a small role in most people's decision, it is unlikely that surfing rules significantly affect school choice.

Still, if surfing rules reflect a school's tendency to enforce strict (or lenient) rules, in-class Internet policies could have a larger-than-expected impact. Because of the possible negative effects on students and professors, schools are increasingly curtailing surfing by banning the Internet in classrooms.

II. BANNING THE INTERNET

A few years ago, Professor June Entman of the University of Memphis Law School forbade her students from bringing laptops to class. In an e-mail sent to her students explaining the ban, Professor Entman stated, "The wall of vertical screens keeps me from seeing many of your faces...[It] hampers the flow of discussion between me and the class and among the students."²⁴

Many of her students did not support the decision. According to *The Chronicle of Higher Education*, students petitioned against the rule and "filed a complaint with the American Bar Association, arguing that they were being denied an up-to-date education."²⁵ Despite student opposition,

²⁴ Jeffrey R. Young, *The Fight for Classroom Attention: Professor vs. Laptop*, THE CHRONICLE OF HIGHER EDUCATION, June 2, 2006, <http://chronicle.com/free/v52/i39/39a02701.htm>.

²⁵ *Id.*

other professors and entire schools have banned the Internet in classrooms.

On April 10, 2008, Jerry Crimmins reported that the University of Chicago Law School would soon remove Internet access from classrooms.²⁶ It is the first major law school to impose a sweeping ban. Stanford, Harvard, and Yale law schools may soon follow suit.²⁷

After deciding to implement a ban, professors and administrators must decide how to enforce it. Schools can enforce Internet bans technically and statutorily. Professor Entman enforced her classroom ban statutorily. The University of Chicago relies on both methods. The school shut off its wireless network in classrooms during class-time. In the library, wireless network access is available at all times. This technical enforcement is possible because of the Law School's unique architecture and may not be feasible at other schools. The library is completely separate from the classroom wing, so there is minimal wireless leakage into the classrooms.

As powerful cell phones and mobile broadband networks become increasingly popular, administrators will not be able to reduce Internet use by deactivating wireless networks. Flipping the switch on wireless networks will become meaningless. Schools might react by blocking mobile signals, but such actions are likely illegal under the amended Communications Act of 1934.²⁸ Technically enforcing bans are only possible in certain places, and they are not effective long-term solutions.

Schools can also enforce Internet bans statutorily by punishing surfers. Professors might punish students by embarrassing them in front of their classmates ("Is *Volokh Conspiracy* really more exciting than my lecture?"), by warning students who disobey the policy, and by lowering grades if students continually violate the policy. Harsh punishments will discourage frivolous surfing, but they will also deter beneficial surfing. Alternatively, if schools create rules against Internet surfing but do not outline corresponding punishments, students may simply ignore statutory bans. Enforcement is even more difficult.

One simple way to enforce Internet policies is for professors to walk up and down classroom aisles. This would not be an effective enforcement mechanism, since modern computers make it easy to open and close programs. Students would likely (and currently do) switch windows if they noticed an approaching professor. A more effective enforcement

²⁶ Crimmins, *supra* note 19.

²⁷ *Id.*

²⁸ See 47 U.S.C. § 333 (2000) ("no person shall willfully or maliciously interfere with or cause interference to any radio communications of any station licensed or authorized by or under this chapter or adopted by the United States Government"); S. Robert Carter III, *The Sound of Silence: Why and How the FCC Should Permit Private Property Owners to Jam Cell Phones*, 28 RUTGERS COMPUTER & TECH. L.J. 343 (2002).

mechanism would be the installation of mirrors along the back wall of classrooms, thus allowing professors to view students' screens from anywhere in the classroom. Hi-definition cameras could have a similar effect, as long as students felt that there was a chance someone would view the tapes.

Classes could also rely on anonymous reporting by fellow students, but there would be a couple of problems. First, students would need an incentive to report violators. If those who disobeyed the policy were punished with lower grades, students would have an incentive to report because law classes are typically graded on curves. A more serious problem would be false reporting; schools would need a method for verifying accusations. As discussed below, administrators could achieve some verification by requiring students to log in.

Nevertheless, because bans may be difficult to implement and to enforce and because there a number of positive benefits generated by Internet use, I do not feel that complete Internet bans are optimal solutions. Still, unrestricted in-class surfing is not desirable either, since the Internet use imposes costs on the entire class. I instead argue that administrators should pursue a third way; they should nudge students to make better decisions.

III. WHY SHOVE WHEN YOU CAN NUDGE?

In *Nudge: Improving Decisions about Health, Wealth, and Happiness* Professors Richard Thaler and Cass Sunstein point out a false dichotomy that pervades modern politics.²⁹ Many on the left are enthusiastic about command-and-control regulations. Many on the right feel that only laissez-faire policies are desirable. For people on both sides, there is no middle ground. Professors Thaler and Sunstein argue that there is a real third way, called *libertarian paternalism*. Libertarian paternalism is a way of guiding people to make better choices without significantly restricting freedom.³⁰

Save More Tomorrow is an example of libertarian paternalism that companies have already begun using.³¹ Many Americans wish they saved more money for retirement, but Americans often feel that they cannot increase savings because their budgets are too tight. To combat this problem, employers have encouraged worker participation in Save More

²⁹ RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 252-53 (2008).

³⁰ See *id.* at 4-6. See also Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159 (2003); Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175 (2003).

³¹ Richard H. Thaler & Shlomo Benartzi, *Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving*, 112 J. POL. ECON. S164 (2004).

Tomorrow. Each time employees get a raise, employers automatically contribute a portion of that raise to their employees' retirement accounts. If John, for example, receives a 3 percent raise, his company might increase his 401(k) contribution rate by 2 percent. This way, John saves 2 percent more and his income still increases by 1 percent. Save More Tomorrow guides workers to make improved choices, but does not significantly reduce freedom because participation is voluntary. Companies that have implemented this plan have seen four-fold increases in their employees' savings rates.³²

A. Nudge

1. Bad Decisions and Nudges

One of the main points of Thaler and Sunstein's book (and of behavioral economics as a subject) is that, at times, people systemically act contrary to their own best interest.³³ Such people are irrational in certain decision-making situations. According to Thaler and Sunstein, many people who save too little money (and wished they saved more) behave irrationally. Perhaps the best evidence that people sometimes act irrationally is that non-intrusive encouragements, such as Save More Tomorrow, significantly modify behavior. After all, if people were rational, Save More Tomorrow would minimally affect savings rates, since everyone would already be making optimal 401(k) contributions. Those who act irrationally are prime candidates for libertarian paternalism in the form of a *nudge*.

According to Thaler and Sunstein, "a nudge is any factor that significantly alters the behavior of Humans."³⁴ The alteration must change behavior "in a predictable way without forbidding any options or significantly changing...economic incentives."³⁵ Desirable nudges encourage libertarian paternalism and help people make better choices.

Describing choices with adjectives like bad, good, and better is subjective. If John wants to save only 2 percent of his income, is his decision bad or good? For some people 2 percent may be too low, for others too high. According to Thaler and Sunstein, the proper way to evaluate

³² THALER & SUNSTEIN, *supra* note 29, at 114.

³³ Socrates was perhaps the first behavioral economist. According to the late Professor Samuel Stumpf, Socrates felt that people are rational and therefore desire happiness, but Socrates also "knew that some forms of behavior appear to produce happiness, but in reality do not." SAMUEL E. STUMPF, SOCRATES TO SARTRE: A HISTORY OF PHILOSOPHY 44 (New York: McGraw-Hill, 1966). According to Socrates, people sometimes choose these behaviors and act contrary to their own self-interest.

³⁴ THALER & SUNSTEIN, *supra* note 29, at 8.

³⁵ *Id.* at 6.

John's choice is to determine what decision he would make if he "possessed complete information, unlimited cognitive abilities, and complete self-control."³⁶ Therefore, when policy makers use libertarian paternalistic nudges to help people make better decisions, policy makers are really trying to get people to make the choices they would make if they were smarter and less prone to addictive behavior. Better choices are better for the people receiving the nudge, though they may not recognize it at the time.

Parents frequently encourage their children to do things that they would prefer not to do, such as brush their teeth, go to bed, and do homework. When children get older, they usually realize that their parents helped them to make decisions they would have made had they possessed better information. Nevertheless, not all parental encouragements are libertarian paternalistic because failure to comply often leads to restricted freedom ("Eat your vegetable or you'll be grounded for a week"). Still, some encouragements are great examples of libertarian paternalism because they do not limit freedom at all ("Eat your vegetables and you'll get some ice cream").

The application of libertarian paternalistic nudges is more controversial when the recipient is an adult. As Thaler and Sunstein point out, however, in many circumstances, nudges are inevitable. For instance, food placement in cafeterias influences dining decisions. By placing fruits toward the front of the line and desserts toward the end, cafeteria designers nudge diners to eat more fruits and fewer desserts.³⁷ Cafeteria planners will inevitably nudge diners one way or the other because they influence diners' decisions simply by offering food in the first place.

By offering Internet access, universities also inevitably influence students' classroom productivity. Which way should administrators nudge students? The answer depends on whether students are likely to make bad choices when deciding to surf the Web during class.

2. Can Surfing Be a Bad Decision?

Bad choices are not random events. (Bad choices, once again, are choices that people would not make if they possessed better information and unyielding self-control.) Thaler and Sunstein identify three circumstances where bad choices are most likely: (1) when decisions are infrequent (choosing a mortgage), (2) feedback is unavailable or delayed (golfing in the dark), and (3) costs are borne far in the future (eating candy bars).³⁸ Can surfing be a bad decision?

³⁶ *Id.* at 5.

³⁷ *Id.* at 1-4.

³⁸ *See id.* at 72-76.

Students decide whether to surf or pay attention in class on a daily basis, so (1) does not cause bad surfing decisions. Feedback, however, is infrequent and delayed, so (2) is applicable to students. In law school, most students receive feedback on their scholastic progress once per semester, and feedback is typically postponed until the course is over. Law students have little chance to correct their mistake if they later discover they spent too much time on the Internet. Students receive final feedback on the effect of their participation only when looking for a job, at which point it is likely too late to change in-class behavior. Choosing to listen in class may be a bit like shooting foul shots blindfolded.

In addition, (3) also applies to students: there is an interval between when the costs of refraining from Internet use are borne and when the benefits of receiving higher grades and better job prospects are received. Because of the interval, it is difficult for many students to realize the importance of in-class lectures. According to Dean Levmore of the University of Chicago, “[students] don’t realize the value of what they’re being distracted from.”³⁹ Furthermore, the delay between bearing the costs and receiving the benefits forces heavy reliance on self-control, even if students understand the true costs of surfing in class (despite delayed feedback). If Internet addiction is indeed a psychological disorder,⁴⁰ heavy reliance on self-control to curtail Internet surfing is worrisome.

Students, then, are susceptible to non-welfare-maximizing choices when deciding to surf in class. Anecdotal evidence at the University of Chicago confirms this conclusion. If students were acting rationally prior to the Internet ban, everyone who surfed the Internet in class prior to the ban would now be worse off. In an interview, Dean Levmore stated, “[Prior to the ban] there are many who...said they would hate it and were very resentful, and now say they love it...It’s gratifying to hear about people who benefit from tough love.”⁴¹ Students who initially opposed the ban – and, presumably, surfed the Internet during lectures – now support the ban – and refrain from surfing. These erstwhile surfers seem to realize that they are better off without the temptations of the Internet.

B. Nudging Students

Because negative effects flow from Internet use (such as worse grades) and students are likely to make bad choices when deciding to surf, it is wise for schools to attempt to reduce in-class Internet use. Nevertheless, administrators should not ignore the pedagogical benefits of in-class

³⁹ Crimmins, *supra* note 19.

⁴⁰ See *supra* note 16 and accompanying text.

⁴¹ Crimmins, *supra* note 19.

Internet access. I therefore argue that schools and professors should nudge students to make better choices without banning the Internet entirely.

In this section, I outline a few steps schools can take to nudge students to reduce Internet use without eliminating either freedom-of-choice or the Internet's accompanying benefits. My list is in no way exhaustive; other effective nudges certainly exist. The third nudge listed below (allowing Internet use only on the back row), may be an especially useful nudge because it also addresses the Internet's negative externality problem.

1. Login

Many companies and universities assign employees usernames and passwords for computer use. This practice protects sensitive data and allows employers to restrict and track Internet use. Forcing employees to login presumably reduces time-wasting behavior because employees know that their employers can feasibly monitor Internet use. School administrators could require students to do the same.

Administrators could design a program that students must install on their laptops prior to using schools' wireless networks. Students would be required to provide usernames and passwords for access to wireless networks.

Most schools already require laptop registration, which allows some observation. Still, monitoring students' surfing is difficult on campuses with thousands of Internet users. Furthermore, current methods do not inform professors or students of in-class surfing tendencies. A dedicated login program could help students and teachers track time spent on the Internet. The program could streamline browsing history, making it easier for students, administrators, and, if desired professors, to view in-class surfing tendencies. Depending on surfing default rules and the attributes of the login program, forced logins could have a number of effects.

If, for example, the program provides students with detailed information on the amount of time spent online (as Firefox already does), students with self-control issues would be able to track their time-wasting behavior. This would nudge students to make better decisions – just as counting calories helps dieters to lose weight.⁴²

Such a system could also provide faculty members with information on students' in-class surfing behavior, helping to enforce rules against surfing on sites unrelated to class discussions. The system could be very general,

⁴² Judy Kruger, Heidi Michels Blanck & Cathleen Gillespie, *Dietary and Physical Activity Behaviors Among Adults Successful at Weight Loss Maintenance*, 3:17 INT'L J. BEHAV. NUTRITION & PHYSICAL ACTIVITY 1, 2 (2006), available at <http://www.ijbnpa.org/content/pdf/1479-5868-3-17.pdf>.

providing the overall amount of time students spend surfing, or it could be specific, offering each students' complete in-class browsing history.

If students are aware of this system and professors explicitly state the in-class Internet policy, many students would make better decisions. Still, usernames and passwords would lose their efficacy as more students move to mobile broadband networks.

2. Switching the Default Rule

In the Save More Tomorrow program outlined above, default rules had powerful effects on participation. If, upon starting with the company, employees were automatically enrolled in Save More Tomorrow and given the opportunity voluntarily to opt out, participation was much higher than if employees were not enrolled but could voluntarily opt in.⁴³ By changing default rules, policy makers can influence behavior. The ability of default rules to modify behavior plays an important role in contract law.⁴⁴ One reason default rules have an effect on decisions is the endowment effect, another finding of behavioral economics.

In an experimental setting, participants preferred coffee mugs to chocolate bars if they received coffee mugs first, but the preferences reversed if they received chocolate bars first.⁴⁵ The underpinning theory is that once people receive a good (or legal right), they automatically value the good (or right) more than before they received it. This is true even if people do not have a chance to consume the item. More people therefore participate in Save More Tomorrow if they must voluntarily opt out.⁴⁶ Even though both opting in and automatic enrollment have the same effect on savings rates, opting in forces participants to give up their initial assignment. Law students are also susceptible to the endowment effect.

Professor Cass Sunstein separated 150 University of Chicago law students into two groups. He told the first group of students to imagine that each would receive two weeks of vacation time at his or her new jobs. The students could receive two additional weeks of vacation time if they were willing to accept a reduction in salary. In this group, the average student was willing to accept a \$6,000 reduction in annual salary for the extra vacation time.⁴⁷

⁴³ THALER & SUNSTEIN, *supra* note 29, at 108-09.

⁴⁴ See, e.g., C. A. Riley, *Designing Default Rules in Contract Law: Consent, Conventionalism, and Efficiency*, 20 Oxf. J. Legal Stud. 367 (2000); Cass R. Sunstein, *Switching the Default Rule*, 77 N.Y.U. L. REV. 106 (2002).

⁴⁵ Daniel Kahneman, Jack L. Knetsch, and Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325 (1990).

⁴⁶ THALER & SUNSTEIN, *supra* note 29, at 108-09.

⁴⁷ Sunstein, at *supra* note 44, at 8.

Professor Sunstein told the second group to imagine that each would receive four weeks of vacation time. He informed students that, in an effort to shorten their vacation time, their respective law firms would increase their salary if they agreed to shorten their vacation time to two weeks. In this second group, the average student was willing to accept a \$13,000 increase salary for the reduced vacation time.⁴⁸

Students were willing to pay \$6,000 for the third and fourth weeks of vacation if two weeks of vacation was the status quo offer, or default rule, but they were willing to pay \$13,000 for the third and fourth weeks if four weeks was the default rule. The students valued the third and fourth weeks of vacation differently if the weeks were part of the default rule. Companies can affect the amount of vacation time their employees take by modifying status quo offers. The endowment effect similarly predicts that law schools can influence surfing time by changing default rules. The endowment effect also explains why students have reacted so negatively to Internet bans.

As noted above, University of Memphis Law School students protested when one professor disallowed in-class surfing. Similarly, some law students at the University of Chicago opposed the ban: according to Dean Levmore, “There are some who don't like it, who feel it's quite paternalist and so forth... They are quite vocal.”⁴⁹ Law students value the implicit right to surf the Internet during class and perceive a welfare loss when the right disappears.⁵⁰ Students experience a greater welfare loss when administrators remove the right than when students do not receive the right in the first place. Schools can lower the perceived value of Internet access, and therefore change surfing behavior, by switching the default rule.

Under the new rule, administrators would inform students that they do not have right to surf the Internet in class, except with professor approval. To be effective, the change would require administrators to inform students of the rule before they matriculated. How could administrators switch the default rule? One suggestion is to make the new default rule clear on the application itself. Professor Ayres stated, “If the admission application simply asked students to check a box if they were willing to forgo classroom surfing, I imagine virtually all applicants would forgo their God-given right to play solitaire [and surf the Internet].”⁵¹ With a new default rule, there will be no welfare loss when instructors enforce the ban, but

⁴⁸ *Id.* Some of the disparity may have resulted from what economists call income effects.

⁴⁹ Crimmins, *supra* note 19.

⁵⁰ Note the word perceived. As mentioned in the text, reducing in-class surfing may increase certain students' welfare, but many of these students may not be able to perceive it *ex ante*.

⁵¹ Ayres, *supra* note 3.

student welfare will increase when instructors allow surfing.

Switching the default rule would limit Internet use primarily in classes where professors never outline an Internet policy. The new default rule would reduce surfing by encouraging, but not forcing, students to refrain, since switching the default rule would raise the costs of Internet use. With either rule, students weigh the expected costs of surfing against the expected benefits. Although the benefits (such an enhanced educational experience and entertainment) and expected long-run costs (lower grades and worse job prospects) remain the same under both default rules, the no-surfing default raises the short-run costs of Internet use. These costs include the probability of getting caught viewing unapproved web pages weighed against the expected punishment. Switching the default rule will raise the expected punishment, thus increasing the overall cost of surfing. In total, fewer students will surf.

Despite their short-term potential, however, mandatory logins and changed default rules do not address surfing externalities, i.e., Peter's surfing either encourages Paul to surf or distracts Paul. Forcing Internet users to sit in the back would mitigate the externality problem.

3. Back Row

In the economics classes I teach, I allow Internet use only on the back row (or back two rows if sufficient students want to surf). The inspiration came from Professor Ayres, who has also used the policy with some success.⁵² Overall Internet use has been significantly lower in back-row classes than in classes without Internet policies, and yet I do not remove the choice. Students who sit along the back row have lower grades on average (which may be due to factors other than surfing), and by telling students this, I help them make informed choices. Students often sit along the back row when they have a research paper due in another class, but still want be in class to get some notes. Overall, student feedback has been positive.

Perhaps the best reason for allowing Internet use only in the back is that it reduces the negative externality associated with surfing. According to, "In the back row," said Professor Ayres, "it isn't a visual distraction."⁵³ Nor does back-row surfing encourage the next row to begin "shoe shopping."⁵⁴

Other than reducing the externality problem, this policy produces another effect. It discourages surfing everywhere in classroom, even in the back row. By sitting in the back row, students indicate to the professor that they will likely surf the Internet. Professor Ayres stated, "I view these back-

⁵² *Id.*

⁵³ *Id.*

⁵⁴ Crimmins, *supra* note 19.

benchers as virtually a step away from non-attendance.”⁵⁵ Because many students realize that surfing bothers professors and few students wish to upset their grader, fewer students surf.

Allowing back-row surfing is an excellent nudge that “balance[s] student liberty with [the] negative externality.”⁵⁶

4. Record, Evaluate, and Compare Alternative Prices (RECAP).

Professors Thaler and Sunstein note that many pricing schemes are ambiguous.⁵⁷ This makes it difficult for people to compare products and make welfare-maximizing purchases. A cell phone company may advertise a monthly subscription rate of \$60, for example, but the typical monthly bill may exceed \$80. Taxes and fees increase actual prices. In the market for cell phone plans, it is difficult to know the actual cost until the first bill arrives. By then it is too late to change plans. The same is often true in the market for home mortgages.

Credit card companies frequently attempt to conceal the true costs of borrowing by hiding late fees and variable interest rates in the fine print.⁵⁸ In perfect competition, firms are likely to divulge information completely when prices are verifiable.⁵⁹ If competition is restricted because there are few firms, however, some businesses may tacitly agree to hide pricing information. Unlike other instances of collusion (such as restricting oil output), this is a stable equilibrium because no firm can improve its situations by breaking the collusion. There is no incentive to divulge if competitors similarly hide their prices. Thus vague pricing schemes seem to prevail in oligopolistic markets.

Thaler and Sunstein advocate a government program called Record, Evaluate, and Compare Alternative Prices (RECAP) to help consumers make better decisions.⁶⁰ Under this policy, firms in vague pricing markets – such as the markets for cell phone coverage, home and car insurance, home mortgage – are legally required to divulge all pricing information. As firms record and divulge information, consumers are better able to evaluate and compare alternative prices, which leads to informed decisions. A RECAP-style program could similarly help students make better decisions about in-class Internet use.

⁵⁵ Ayres, *supra* note 3.

⁵⁶ *Id.*

⁵⁷ THALER & SUNSTEIN, *supra* note 29, at 91-94.

⁵⁸ *Id.* at 93.

⁵⁹ See DOUGLAS G. BAIRD, ROBERT H. GERTNER & RANDAL C. PICKER, GAME THEORY AND THE LAW 79-118 (1994).

⁶⁰ THALER & SUNSTEIN, *supra* note 29, at 93.

As noted above, one reason that some students make bad surfing decisions is that they do not understand the true costs of disregarding lectures. Feedback is delayed and the benefits of refraining are received far in the future. RECAP could help students who do not understand the true costs of surfing. Under a RECAP program, school administrators could institute a seminar to inform students of the actual cost of surfing in class. The seminar could be part of law schools' new student orientations. It would be highly effective if administrators could tell students that on average an hour spent surfing in class lowers starting salaries by, say \$100.

The problem, of course, is that the true costs of in-class surfing are unknown. As noted above, there is a negative relationship between surfing the Internet during class and grades.⁶¹ And there is an obvious positive relationship between grades and job offers. Therefore, all other things equal, the more time students spend surfing in class, the worse their job prospects seem to be. Researchers should be able to use statistical techniques to trace the precise monetary impact that surfing has on job prospects. Statistical research has demonstrated, for example, that the true costs of a pack of cigarettes are \$222 if health risks and reduced life expectancy are taken into account.⁶² Econometricians could use similar techniques to estimate the true costs of surfing. Nevertheless, the causal link may be difficult to establish conclusively, since both excessive surfing and poor grades may be caused by a third factor, such as lack of interest in the subject.

It may be worthwhile to mention one caveat that applies to all Internet-related nudges. School administrators should not pursue these nudges if the costs of implementing the nudges exceed the benefits of providing students with better information. Although changing default rules and back-row surfing policies are cheap nudges, the costs of dedicated login and RECAP programs could be quite high.

CONCLUSION

The four programs mentioned above would help students make better decisions without significantly altering economic incentives. These programs are therefore nudges. Other nudges certainly exist. Outright banning of all Internet use, on the other hand, is not a nudge. Bans may persuade some students to act in their own best interest, but bans also forbid options and reduce in-class freedom. Bans are paternalistic without libertarian qualifications. They are closer to shoves.

Outright bans are probably more effective at reducing Internet use than

⁶¹ See *supra* note 12-13 and accompanying text.

⁶² W. Kip Viscusi & Joni Hersch, *The Mortality Cost to Smokers*, 27 J. HEALTH ECON. 943 (2008).

nudges. Still, as mentioned above, bans have a number of harmful consequences not shared with nudges.

First, many people – such as Dean Levmore’s students⁶³ – loathe the idea of being told what to do. If people lose a right that they have exercised or intend to exercise, they will be worse off.

Second, law students are preparing to enter job markets. At their future jobs, students will likely have Internet access. Cutting off the Internet in law school does not prepare students to deal with on-the-job surfing temptations.

Third, surfing, even on sites unrelated to law school, may be beneficial if it helps students pay better attention during the remainder of class, or if students surf instead of engaging in other distractions.

Fourth, bans do not force professors to compete with the Internet, thus eliminating the possibility that competition will make professors better teachers. Although the best teachers are not necessarily the most flamboyant, nearly all classrooms could benefit from a little more excitement.

Finally – and most importantly – outright bans remove the potential pedagogical benefits of the Internet, making it impossible for students to cross-reference to *LexisNexis* and *Westlaw*, look-up unknown words, or use online material to correct errant professors.

There are situations where bans are appropriate and situations where nudges are appropriate. If people cannot be reasonably encouraged to make better decisions, the costs of bad decisions are extremely high, or few positive effects flow from bad decisions, bans are more appropriate. This is not the case with in-class Internet surfing. For this reason, I encourage educators to consider options that will help students make better surfing decisions without eliminating the choice.

⁶³ See text accompanying *supra* note 49.