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ARTICLES

EMERGING TECHNOLOGIES AND DWINDLING SPEECH

*Jorge R. Roig**

INTRODUCTION

In a recent case, the United States District Court for the Eastern District of Virginia held that “liking” something on Facebook did not constitute speech for First Amendment purposes.¹ The court analyzed Facebook’s “Like” feature in the context of a campaign for public office.² The court refused to even apply First Amendment scrutiny to an employee’s termination because of his “liking” the campaign web page of a candidate for sheriff who was running for office against the employee’s boss, the current sheriff.³ It found that a “Like” on Facebook did not amount to expression covered by the First Amendment.⁴ The district court’s decision was appealed to the United States Court of Appeals for the Fourth Circuit, which reversed the lower court’s holding that “liking” a Facebook page was insufficient speech to merit constitutional protection.⁵

The case generated quite a bit of public attention.⁶ Both the American Civil Liberties Union and Facebook itself filed amicus curi-

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1 Bland v. Roberts, 857 F. Supp. 2d 599, 603 (E.D. Va. 2012) *aff’d in part, rev’d in part, and remanded*, 730 F.3d 368 (4th Cir. 2013).

2 *Id.* at 603–04.

3 *Id.* at 601–04.

4 *Id.* at 603.

5 Bland v. Roberts, 730 F.3d 368, 384–86 (4th Cir. 2013).

6 See, e.g., Megan Garber, *Is a Facebook Like Protected Under the First Amendment? A Court Says No*, THE ATLANTIC (Apr. 30, 2012, 3:05 PM), <http://www.theatlantic.com/technology/archive/2012/04/is-a-facebook-like-protected-under-the-first-amendment-a-court-says-no/256534> (“[The district court’s] ruling is a strange ruling, particularly because a Facebook like, as simplistic as it is, is nothing if not a ‘substantive statement.’”); Helen A.S. Popkin, *Does Your Facebook ‘Like’ Count as Free Speech?*, NBCNEWS.COM (May 2, 2012, 6:39 PM), <http://sys03-public.nbcnews.com/technology/does-your-facebook-count>

ae briefs before the Fourth Circuit court.⁷ Both amici disagreed with the lower court's opinion.⁸ Their arguments discussed in detail the issue of the communicative nature of the Facebook "Like" feature.⁹ The Fourth Circuit court largely agreed with both amici.¹⁰

The issues involved in the *Bland* litigation are certainly a worthy subject for a law review article in themselves.¹¹ This is not that article. This Article, instead, although inspired in part by the holding in *Bland*, is a foray into the approach that courts have taken in the recent past towards questions of First Amendment coverage in the context of emerging technologies. Specifically, this Article will take a closer look at how courts have dealt with the issue of functionality in the context of First Amendment coverage of computer source code. The analysis of this recent experience, when put in a larger context, reflects a continuing dissatisfaction on the part of both courts and legislatures with the current Supreme Court doctrine on First Amendment coverage. *Bland* is just the latest, noteworthy example.

free-speech-749433 ("According to the court's opinion in *Bland v. Roberts* 2012, clicking the Facebook's 'Like' button isn't 'sufficient speech to garner First Amendment protection.'"); *Clicking 'Like' on Facebook Is Not Protected Speech, Judge Rules*, N.Y. TIMES (May 5, 2012), http://www.nytimes.com/2012/05/06/us/clicking-like-on-facebook-is-not-protected-speech-judge-rules.html?_r=0 ("The 'like' button on Facebook seems a relatively clear way to express your support for something, but a federal judge says that does not mean clicking it is constitutionally protected speech.").

7 See Brief for Facebook, Inc. as Amicus Curiae Supporting Appellant Daniel Ray Carter, Jr., *Bland v. Roberts*, 730 F.3d 368 (4th Cir. 2013) (No. 12-1671) (asserting that liking a page on Facebook is speech protected by the First Amendment); Brief for ACLU & ACLU of Virginia as Amici Curiae Supporting Appellants, *Bland v. Roberts*, 730 F.3d 368 (4th Cir. 2013) (No. 12-1671) (arguing that the Facebook "Like" feature should be protected under the First Amendment).

8 *Id.*

9 *Id.*

10 *Bland*, 730 F.3d at 384–86.

11 See, e.g., Clay Calvert, *Fringes of Free Expression: Testing the Meaning of "Speech" Amid Shifting Cultural Mores & Changing Technologies*, 22 S. CAL. INTERDISC. L.J. 545, 571–80 (2013); Jacquelyn E. Fradette, Note, *Online Terms of Service: A Shield for First Amendment Scrutiny of Government Action*, 89 NOTRE DAME L. REV. 947, 974 (2013); Leigh Ellen Gray, *Thumb War: The Facebook "Like" Button and Free Speech in the Era of Social Networking*, 7 CHARLESTON L. REV. 447, 480–85 (2013); Benjamin F. Jackson, *Censorship and Freedom of Expression in the Age of Facebook*, 44 N.M. L. REV. 121, 135–36 (2014); Molly D. McPartland, Note, *An Analysis of Facebook "Likes" and Other Nonverbal Internet Communication Under the Federal Rules of Evidence*, 99 IOWA L. REV. 445 (2013); Ira P. Robbins, *What Is the Meaning of "Like"?: The First Amendment Implications of Social-Media Expression*, 7 FED. CTS. L. REV. 127 (2013); Alicia D. Sklan, Note, *@socialmedia: Speech with a Click of a Button? #socialsharingbuttons*, 32 CARDOZO ARTS & ENT. L.J. 377 (2013); Zachary Shklar, Note, *Social Networking and Freedom of Speech: Not "Like" Old Times*, 78 MO. L. REV. 665 (2013).

The First Amendment, of course, guarantees our freedom of speech.¹² First Amendment coverage, then, refers to the threshold question of whether a particular regulation of human activity triggers analysis under the Free Speech Clause of the Constitution at all. Extending First Amendment coverage over an activity means that “the constitutionality of the conduct’s regulation must be determined by reference to First Amendment doctrine and analysis.”¹³ “If, on the other hand, a particular activity is not covered by the First Amendment, courts need not consult First Amendment doctrine to determine the constitutionality of its regulation.”¹⁴ Only after coverage has been established need we engage in First Amendment *protection* analysis.

This second protection inquiry involves the actual application of the pertinent First Amendment scrutiny to the challenged regulation.¹⁵ “At this [second] stage, courts should consider the government interest being pursued through regulation and the fit between such ends and the means employed to achieve it.”¹⁶ “To say that an activity is ‘protected’ by the First Amendment from government regulation means *first* that the activity is covered by the First Amendment and *second* that the regulation attempted by the government is unconstitutional under First Amendment doctrine.”¹⁷

In terms of textual constitutional analysis, the question we seek to answer when we address the preliminary question of *coverage* is whether a particular regulation of human activity falls within the scope of some specific constitutional provision. In the case of the Free Speech Clause, the operative constitutional text is, “Congress shall make no law . . . abridging the freedom of *speech*”¹⁸ Free

12 U.S. CONST., amend. I (“Congress shall make no law . . . abridging the freedom of speech . . .”).

13 Robert Post, *Encryption Source Code and the First Amendment*, 15 BERKELEY TECH. L.J. 713, 714 (2000) [hereinafter Post, *Encryption*].

14 Jorge R. Roig, *Decoding First Amendment Coverage of Computer Source Code in the Age of YouTube, Facebook, and the Arab Spring*, 68 N.Y.U. ANN. SURV. AM. L. 319, 328 (2012).

15 *Id.* at 330.

16 *Id.* (citing *Boos v. Barry*, 485 U.S. 312, 321 (1988) (applying strict scrutiny and requiring “the State to show that the ‘regulation is necessary to serve a compelling state interest and that it is narrowly drawn to achieve that end’” (quoting *Perry Educ. Ass’n v. Perry Local Educators’ Ass’n*, 460 U.S. 37, 45 (1983))); see also *Central Hudson Gas & Elec. Corp. v. Public Serv. Comm’n of N.Y.*, 447 U.S. 557, 564 (1980) (applying an intermediate level of scrutiny and requiring that the State “assert a substantial interest to be achieved by restrictions on commercial speech” and that “the regulatory technique . . . be in proportion to that interest”).

17 Roig, *supra* note 14, at 328–29.

18 U.S. CONST., amend. I (emphasis added).

Speech Clause coverage, then, turns on how we define the word “speech.” The big question is: What is speech?

We can seek to answer this question at several different levels of analysis. First, we could take a doctrinal approach and ask ourselves whether the Supreme Court would find that a particular activity is speech for First Amendment purposes. As part of such an endeavor, of course, it is essential to try to understand and parse out how courts have addressed such questions in the past.

Second, we could engage in a normative discussion of how the Supreme Court *should* resolve any such issues. As part of such a normative approach, we might suggest alternative routes for the doctrine and gauge whether the current precedent is consistent with the best constitutional policy.

Finally, such a normative discussion might expand to consider the bigger picture. In this sense, a conscientious analysis of coverage issues concerning the Free Speech Clause may very well shed light on a larger theory of constitutional coverage. For every individual right guaranteed by the Constitution, similar questions of coverage arise. These questions of coverage have invariably resulted in great controversy. So, for example, much judicial ink has been devoted to determining what constitutes a “search” or a “seizure” for purposes of Fourth Amendment analysis.¹⁹ Similarly, the definition of “property,” as the term is used in different parts of the Constitution, has been the subject of much dispute.²⁰ And many already expect robust litigation over the question of exactly what “arms” are covered by the newly recognized individual right to keep and bear arms under the Second Amendment.²¹ Furthermore, the role that emerging and evolving technologies have played, and will continue to play, in defining, rede-

19 See, e.g., *United States v. Jones*, 132 S. Ct. 945 (2012) (resolving that the government’s installation and prolonged use and monitoring of a Global Positioning System (GPS) tracking device on a suspect’s car is a “search” under the Fourth Amendment); *Kyllo v. United States*, 533 U.S. 27 (2001) (holding that the use of a thermal imaging device from a public vantage point to detect radiation of heat from a suspect’s home is a “search” under the Fourth Amendment).

20 See, e.g., Tom W. Bell, “Property” in the Constitution: The View From the Third Amendment, 20 WM. & MARY BILL RTS. J. 1243 (2012) (discussing the multiple and inconsistent meanings assigned to the term “property” throughout the Constitution).

21 See *D.C. v. Heller*, 554 U.S. 570, 570 (2008) (holding that the Second Amendment protects an individual’s right to possess a firearm for purposes of self-defense, after an extensive discussion by the majority and dissenting opinions about the meaning of terms such as “keep and bear arms”); *McDonald v. City of Chi.*, 130 S. Ct. 3020, 3050 (2010) (holding that the Second Amendment right recognized in *Heller* is incorporated by the Due Process Clause of the Fourteenth Amendment and applies to the states).

fining, and refining these (and many other) individual rights is nothing short of crucial.²²

This Article aims to explore the role that the issue of functionality has played in courts' assessment of First Amendment coverage issues when reviewing regulation of computer source code. It also expects to derive some meaningful normative insights regarding the interplay between such emerging technologies and First Amendment coverage doctrine. Finally, this Article hopes to serve as a stepping stone in a more profound and long-term pursuit of a comprehensive theory of constitutional individual rights coverage issues that might serve us well as the future brings unexpected changes in our society.

I. STRUGGLING TO FOLLOW THE SUPREME COURT'S LEAD

From a purely doctrinal perspective, to someone familiar with First Amendment doctrine and Facebook, the district court's holding in *Bland* might come as a bit of a surprise. A relatively straightforward application of current Supreme Court precedent should make it pretty clear that "liking" something on Facebook is an activity whose regulation should trigger at least some level of First Amendment scrutiny. But courts do make mistakes every so often. After all, that is what we have courts of appeal for, right? So, what may be even more surprising is all the hubbub surrounding the opinion. Why is everyone so concerned about this district court's holding?

The concern arises because it is not the first time, and it is likely not the last time, that courts, legislatures and government agencies have had trouble applying First Amendment coverage doctrine to new technologies or new forms of communication. It seems to be a recurring problem.

In *Bland*, the district court was unwilling to recognize any level of First Amendment scrutiny at all in the context of the use of the Facebook "Like" feature during an election campaign.²³ This result should be at least a bit surprising if we briefly consider the application of Supreme Court doctrine in this context. In *Spence v. Washington*, the Supreme Court held that an activity would be deemed communicative enough to merit First Amendment protection if it had "[a]n intent to convey a particularized message" and "in the sur-

²² See *supra* notes 19 and 21 (referring to the pertinent cases concerning "search and seizure" and "keep and bear arms").

²³ *Bland v. Roberts*, 857 F. Supp. 2d 599, 603 (E.D. Va. 2012).

rounding circumstances the likelihood was great that the message would be understood by those who viewed it.”²⁴

The *Spence* test, however, was modified in *Hurley v. Irish-American Gay, Lesbian & Bisexual Group of Boston*.²⁵

In *Hurley*, the Court made clear that a particularized message is not required: “a narrow, succinctly articulable message is not a condition of constitutional protection, which if confined to expressions conveying a ‘particularized message’ would never reach the unquestionably shielded painting of Jackson Pollock, music of Arnold Schoenberg, or Jabberwocky verse of Lewis Carroll.”²⁶

Furthermore, “[a]ccording to the traditional interpretation of . . . Supreme Court doctrine, the oral or written word is ‘pure speech’ and is automatically entitled to First Amendment coverage.”²⁷

Let us very briefly consider the application of the *Spence-Hurley* test to the Facebook “Like” feature. In its amicus curiae brief before the Fourth Circuit Court of Appeals, Facebook itself described what happens when a user “likes” something:

The “Like” button on Facebook, represented by a thumbs-up icon, is a way for Users to share information on Facebook. The Like button . . . appears next to many different types of content on Facebook – including brands, politicians, religious organizations, charitable causes, and other entities that have established a presence on Facebook. Many other (that is, non-Facebook) websites have also incorporated Like buttons so that Facebook Users can Like news articles, videos, photos, or other content elsewhere on the Internet.

A Facebook User who Likes content —on or off Facebook —by clicking the Like button makes a connection to that content. By clicking the Like button, a Facebook User generates an announcement known as a “Like story” that is posted to her Profile (now Timeline) page. For example, if Jane Smith Liked the UNICEF Facebook Page, the statement “Jane Smith likes UNICEF” would appear on her Profile page along with the title of the Page and an icon selected by the Page’s administrator. The Page’s title and icon function as an Internet link: another Facebook User who views the User’s Profile can click on them and be taken to the Page. If Jane Smith Liked an article on CNN’s website about UNICEF’s activity in sub-Saharan Africa, the statement “Jane Smith likes this article” would appear with a link to the article.²⁸

24 418 U.S. 405, 410–11 (1974).

25 515 U.S. 557, 569 (1995).

26 Roig, *supra* note 14, at 334 (quoting *Hurley*, 515 U.S. at 569 (citation omitted)).

27 Roig, *supra* note 14, at 331 (quoting *Tinker v. Des Moines Indep. Cmty. Sch. Dist.*, 393 U.S. 503, 505–06 (1969) (“‘[P]ure speech’ . . . , we have repeatedly held, is entitled to comprehensive protection under the First Amendment.” (citation omitted))).

28 Brief for Facebook, Inc. as Amicus Curiae, *supra* note 7 at 5–6 (emphasis added and internal citation and footnote omitted).

From this description, it would seem that the use of the “Like” feature on Facebook would, at least in the ample majority of cases, comply with both requirements of the *Spence-Hurley* test.²⁹

First, the operation of the “Like” feature is voluntary. A user chooses to press the “Like” button.³⁰ The operation of this feature is not automatic.³¹ Hence, it would seem reasonable to presume that users who press the “Like” button have an intent to convey a message: they like a particular post or comment. Furthermore, pressing the “Like” button triggers the portrayal of a thumbs-up symbol next to the post or comment that the user likes.³² As explained in the American Civil Liberties Union’s amicus brief in *Bland*, the thumbs-up symbol is universally recognized as conveying a message of approval.³³ In addition, the use of the “Like” feature is also commonly understood shorthand in the Facebook community for such approval.³⁴ Hence, sufficient social conventions would seem to be present in the context of the use of the “Like” feature on Facebook to convey a relatively clear message that will be understood by those who form part of the Facebook community.³⁵

In fact, it would even seem that consideration of the *Spence-Hurley* test is unnecessary in this situation. The use of the “Like” feature also triggers the display of a message *in the written word itself* in the form of: “[user] likes [post or comment].” So pressing the “Like” button directly and foreseeably creates a message in “pure speech.”

Not surprisingly, the Fourth Circuit court agreed with this analysis and reversed the district court’s holding in *Bland*.³⁶ Nevertheless, it is curious to note that the district court in *Bland* chose not to analyze

29 See *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 446-49 (2nd Cir. 2001) (concluding that posting a hyperlink is speech); *Fraley v. Facebook, Inc.*, 830 F. Supp. 2d 785, 804-05 (N.D. Cal. 2011) (concluding that “liking” things on Facebook is “newsworthy”); *T.V. ex rel. B.V. v. Smith-Green Cmty. Sch. Corp.*, 807 F. Supp. 2d 767, 777 (N.D. Ind. 2011) (finding that the posting of photographs to Facebook is protected speech); *J.C. ex rel. R.C. v. Beverly Hills Unified Sch. Dist.*, 711 F. Supp. 2d 1094, 1110 (C.D. Cal. 2010) (ruling that uploading a video to YouTube is speech protected by the First Amendment).

30 Brief for Facebook, Inc. as Amicus Curiae, *supra* note 7 at 5-6.

31 *Id.*

32 *Id.*

33 Brief for ACLU and ACLU of Virginia as Amici Curiae, *supra* note 7, at 9.

34 *Id.* (citing *One Minute on Facebook*, TIME, http://www.time.com/time/video/player/0,32068,711054024001_2037229,00.html) (“Facebook users understand the meaning of the button – so much so that every sixty seconds, there are over 300,000 ‘Likes’ on Facebook.”)

35 Facebook has “[m]ore than a billion monthly active users as of December 2013.” *Key Facts – Facebook’s Latest News, Announcements, and Media Resources*, FACEBOOK, <http://newsroom.fb.com/Key-Facts> (last visited Apr. 6, 2014).

36 *Bland v. Roberts*, 730 F.3d 368, 384-86 (4th Cir. 2013).

the Facebook “Like” feature under the *Spence-Hurley* test at all. Instead, it expressed or hinted at other factors that it believed to be relevant to the analysis. But why?

II. WHY THE STRUGGLE?

The *Spence-Hurley* test seems equal to its task: determining whether a particular activity is communicative enough to merit First Amendment coverage. A problem arises, however, because the communicative nature of some particular conduct is not the be-all and end-all of First Amendment coverage analysis. As has previously been pointed out, for example, obscenity, so-called fighting words, threats, and defamatory speech can all be very communicative; nevertheless, they receive only the most limited First Amendment coverage.³⁷

On the other hand, the regulation of certain activities and things that are not communicative themselves will nevertheless surely trigger First Amendment analysis.

The genre of the cinema . . . encompasses far more than speech acts. It includes materials, like celluloid; functional machines, like projectors; buildings, like movie houses; social organizations, like studios; and so forth. If the state were to prohibit the use of projectors without a license, First Amendment coverage would undoubtedly be triggered. This is not because projectors constitute speech acts, but because they are integral to the forms of interaction that comprise the genre of the cinema.³⁸

Pursuant to this line of reasoning, Dan L. Burk describes how the Sixth Circuit Court of Appeals has held that “something as mundane as a newspaper rack might fall into the category of speech-facilitating devices,” and trigger First Amendment scrutiny.³⁹ Similarly, the Su-

³⁷ See *Miller v. California*, 413 U.S. 15, 23 (1973) (“This much has been categorically settled by the Court, that obscene material is unprotected by the First Amendment.”); *Watts v. United States*, 394 U.S. 705, 707 (1969) (“[A] statute such as this one, which makes criminal a form of pure speech, must be interpreted with the commands of the First Amendment clearly in mind. What is a threat must be distinguished from what is constitutionally protected speech.”); *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 271 (1964) (“The present advertisement, as an expression of grievance and protest on one of the major public issues of our time, would seem clearly to qualify for the constitutional protection. The question is whether it forfeits that protection by the falsity of some of its factual statements and by its alleged defamation of respondent.”); *Chaplinsky v. New Hampshire*, 315 U.S. 568, 571–72 (1942) (“There are certain well-defined and narrowly limited classes of speech, the prevention and punishment of which have never been thought to raise any Constitutional problem. These include the . . . ‘fighting’ words—those which by their very utterance inflict injury or tend to incite an immediate breach of the peace.”).

³⁸ Post, *Encryption*, *supra* note 13, at 717.

³⁹ Dan L. Burk, *Patenting Speech*, 79 TEX. L. REV. 99, 115 (2000) (citing *Plain Dealer Publ’g Co. v. City of Lakewood*, 794 F.2d 1139, 1143 (6th Cir. 1986) (“The right to distribute

preme Court has held that the First Amendment prohibition on prior restraints extends to “expression or *conduct commonly associated with expression*.”⁴⁰

When faced with these types of situations, then, the *Spence-Hurley* test proves insufficient to fully respond to coverage questions under the First Amendment. Courts and legislatures appear to be struggling with this insufficiency. In response, they have attempted to create additional hurdles to First Amendment coverage as a proxy for eliminating from coverage activities that these courts and legislatures might find inconsistent with their conceptions of what the Free Speech Clause is meant to protect. The lack of transparency in these value-laden decisions, and the tendency of courts and legislatures to depart from clearly established Supreme Court precedent, however, is both troubling and inappropriate.⁴¹ Let us now consider some examples.

III. IN SEARCH OF ALTERNATIVES

In its struggle with First Amendment coverage doctrine, the district court in *Bland* justified its decision by expressly adopting a more stringent standard than the one laid out by the Supreme Court in *Spence* and in *Hurley*. Furthermore, the parties in *Bland* also made reference to additional potential requirements for First Amendment coverage that the court may have implicitly imposed.

First, the district court in *Bland* argued that the use of the “Like” feature on Facebook was not substantive enough to constitute speech under the First Amendment: “It is the Court’s conclusion that merely ‘liking’ a Facebook page is insufficient speech to merit constitutional protection. . . . Simply liking a Facebook page is insufficient. It is not the kind of substantive statement that has previously warranted constitutional protection.”⁴² The district court, then, fashioned a brand new “substantiality” or “sufficiency” requirement for First Amendment coverage. Such a requirement, of course, finds no support in Supreme Court precedent. It should be noted, in this sense, that the

newspapers by means of newsracks is protected by the First Amendment . . .”), *aff’d sub nom.*, *City of Lakewood v. Plain Dealer Publ’g Co.*, 486 U.S. 750 (1988)).

⁴⁰ *Lakewood*, 486 U.S. at 760 (1988) (emphasis added).

⁴¹ For this reason, in a previous article, I proposed a multi-step analytical framework for resolving questions of First Amendment coverage. Roig, *supra* note 14, at 331–95. One of the central aspects of this proposed framework is precisely the requirement that courts make a *conscientious and transparent* analysis of whether the activity being considered promotes First Amendment values. *Id.* at 347–95.

⁴² *Bland v. Roberts*, 857 F. Supp. 2d 599, 603–04 (E.D. Va. 2012).

Supreme Court has found such simple and arguably unsubstantial conduct as wearing a black armband,⁴³ wearing a three-word message on a jacket,⁴⁴ saluting or refusing to salute a flag,⁴⁵ and displaying an American flag upside down with a peace symbol attached⁴⁶ as sufficiently communicative to merit First Amendment coverage.

A second argument for limiting First Amendment coverage made in *Bland* is based on the allegedly private nature of the activities on Facebook. The defendant in *Bland* argued that the intended audience was the plaintiff's Facebook friends and not the public because a message posted on Facebook is viewed by the poster's friends only.⁴⁷ The defendant, however, was "mistaken as a matter of fact."⁴⁸ "Each Facebook User can select who may view aspects of his or her Profile – e.g., Friends, all Facebook Users, or 'the world at large.'"⁴⁹ Furthermore, even if the facts were as defendant would have them, the law would not be on his side. "The Supreme Court has held that the First Amendment protects the 'private expression of one's views'"⁵⁰

43 *Tinker v. Des Moines Indep. Cmty. Sch. Dist.*, 393 U.S. 503, 516 (1969) (Black, J., dissenting) ("[T]he Court concludes that the wearing of armbands is 'symbolic speech' which is 'akin to 'pure speech'" and therefore protected by the First and Fourteenth Amendments.").

44 *Cohen v. California*, 403 U.S. 15, 26 (1971) ("[A]bsent a more particularized and compelling reason for its actions, the State may not, consistently with the First and Fourteenth Amendments, make the simple public display here involved of this single four-letter expletive a criminal offense.").

45 *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943) ("We think the action of the local authorities in compelling the flag salute and pledge transcends constitutional limitations on their power and invades the sphere of intellect and spirit which it is the purpose of the First Amendment to our Constitution to reserve from all official control.").

46 *Spence v. Washington*, 418 U.S. 405, 410 (1974) ("The Court for decades has recognized the communicative connotations of the use of flags. . . . On this record there can be little doubt that appellant communicated through the use of symbols. The symbolism included not only the flag but also the superimposed peace symbol.").

47 Brief for Facebook, Inc. as Amicus Curiae, *supra* note 7, at 17 ("A message posted on Facebook by a member is viewed by friends only, not the world at large.").

48 *Id.*

49 *Id.*

50 *Id.* (quoting *Givhan v. W. Line Consol. Sch. Dist.*, 439 U.S. 410, 412–14 (1979) (rejecting the contention that private conversations are beyond the realm of First Amendment protection)); *see also Rankin v. McPherson*, 483 U.S. 378, 392 (1987) (asserting that an employee's comment made in private conversation was protected by the First Amendment and was not sufficient grounds for termination); *Love-Lane v. Martin*, 355 F.3d 766, 777 (4th Cir. 2004) ("Love-Lane's 'right to protest racial discrimination . . . is not forfeited [because she sometimes chose] a private forum.'" (quoting *Connick v. Myers*, 461 U.S. 138, 148 n.8 (1982))); *Cromer v. Brown*, 88 F.3d 1315, 1330 (4th Cir. 1996) ("Cromer's First Amendment right to voice his concern about racial discrimination in his law enforcement agency was clearly established . . ."); *Jackson v. Bair*, 851 F.2d 714, 716–17

Lastly, the district court in *Bland* also tried to justify its refusal to extend First Amendment coverage to what it appeared to believe was a lack of evidence to establish the pertinent intent to convey a particular message: “The Court will not attempt to infer the actual content of Carter’s posts from one click of a button on Adams’ Facebook page. For the Court to assume that the Plaintiffs made some specific statement without evidence of such statements is improper.”⁵¹ Here, again, the district court appears to have been confused about both the facts and the law. As explained above, there were no mysterious inferences to be made here. Facebook users intentionally press the “Like” button, and are well aware of the myriad consequences of such action. Furthermore, as mentioned before, the Supreme Court in *Hurley* specifically clarified that “a narrow, succinctly articulable message is not a condition of constitutional protection, which if confined to expressions conveying a ‘particularized message’ would never reach the unquestionably shielded painting of Jackson Pollock, music of Arnold Schoenberg, or Jabberwocky verse of Lewis Carroll.”⁵² Hence, even if the district court was right on the facts (which it was not), it would still have been wrong on the law.

So the district court in *Bland* struck out. Its three justifications for limiting First Amendment coverage are quite clearly inappropriate. This must make one wonder where the district court’s resistance to extend First Amendment coverage truly came from, as Supreme Court doctrine is not the answer. Is the problem here a misunderstanding of that doctrine? Or is it a deeper misunderstanding, or even fear, of a new technology?

Two other recent litigations also exemplify this trend of courts and legislatures attempting to insert new requirements or considerations to First Amendment coverage analysis in the context of emerging technologies. In *United States v. Stevens*,⁵³ the Supreme Court affirmed the vacatur of a conviction under a federal statute⁵⁴ that prohibited depictions of animal cruelty. In this case, the Government was arguing that these depictions of animal cruelty should be defined out of First Amendment coverage altogether.⁵⁵ The district court ac-

(4th Cir. 1988) (holding that a private lunchtime conversation between employees required “particularized balancing” to determine First Amendment protection).

51 *Bland v. Roberts*, 857 F. Supp. 2d 599, 604 (E.D. Va. 2012).

52 *Hurley v. Irish-Am. Gay, Lesbian and Bisexual Grp. of Bos.*, 515 U.S. 557, 569 (1995) (internal citation omitted).

53 130 S. Ct. 1577, 1592 (2010).

54 18 U.S.C. § 48 (2006).

55 *Stevens*, 130 S. Ct. at 1585 (“The Government argues that ‘depictions of animal cruelty’ . . . ‘lack expressive value,’ and may accordingly ‘be regulated as *unprotected* speech.’”).

cepted the Government's argument and denied the defendant's motion to dismiss the indictment.⁵⁶ The Supreme Court, however, refused to create a new category of disfavored speech.⁵⁷

In this situation, it is hard to think that emerging technologies did not play a central role. The Supreme Court described the relevant legislative history: "The legislative background of § 48 focused primarily on the interstate market for 'crush videos.' According to the House Committee Report on the bill, such videos feature the intentional torture and killing of helpless animals, including cats, dogs, monkeys, mice, and hamsters."⁵⁸ It is reasonable to imagine that the accelerated proliferation of these types of videos due to the easy transfer of digital data over the Internet is what brought this matter to the forefront of Congress's agenda. In this sense, it should be noted that Congress passed the legislation at issue in 1999, right in the midst of the so-called "Dot-com bubble."⁵⁹ Although in this case the preoccupation with technological change is not as self-evident as in other cases, again we see Congress and a district court reacting to a change in technology in a manner that threatens to undermine First Amendment coverage doctrine.

In *Brown v. Entertainment Merchants Association*,⁶⁰ on the other hand, the State of California was transparent in its concern for the dangers of new technologies. In that case, the Supreme Court faced a challenge to a state law that imposed restrictions and labeling requirements on the sale or rental of violent video games to minors.⁶¹ "California claim[ed] that video games present special problems because they are 'interactive,' in that the player participates in the violent action on screen and determines its outcome."⁶² On this basis, the state argued that this type of video games should be withdrawn from First Amendment coverage.⁶³ Hence, the technological changes that have allowed for a more immersive experience while playing video games provided another tempting opportunity for the expansion

56 *Id.* at 1583 ("The District Court denied the motion. It held that the depictions subject to § 48, like obscenity or child pornography, are categorically unprotected by the First Amendment.").

57 *Id.* at 1586 (declining to "carve out from the First Amendment any novel exception for § 48").

58 *Id.* at 1583 (citing H.R. REP. NO. 106-397, p.2 (1999)).

59 *Id.*

60 131 S. Ct. 2729 (2011).

61 *Id.* at 2732 ("We consider whether a California law imposing restrictions on violent video games comports with the First Amendment.").

62 *Id.* at 2737-38.

63 *Id.* at 2734 (arguing that, like obscenity, violent-speech should not be protected under the First Amendment).

of the categories of disfavored speech. The Supreme Court, however, again rebuffed the invitation: “[W]ithout persuasive evidence that a novel restriction on content is part of a long (if heretofore unrecognized) tradition of proscription, a legislature may not revise the ‘judgment [of] the American people,’ embodied in the First Amendment, ‘that the benefits of its restrictions on the Government outweigh the costs.’”⁶⁴

In all of these situations, lower courts, Congress, or the states have attempted to constrain the reach of the Free Speech Clause in the face of new technologies that threaten particular sensibilities. In their attempts, they have latched on to several different formalistic arguments, seeking to expand the requirements necessary for an activity to merit coverage under the First Amendment. Be it the establishment of a “substantiality” or “sufficiency” requirement, a requirement that speech be public and not private, or a heightened evidentiary showing of intentionality, on the one hand, or the creation of new categories of disfavored speech, on the other, all of these alternative approaches to constraining First Amendment coverage serve as proxies to underlying value judgments being made by these state actors. The Supreme Court has been perceptive in this regard and has rejected the invitations to play along, stating: “new categories of unprotected speech may not be added to the list by a legislature that concludes certain speech is too harmful to be tolerated.”⁶⁵ “The First Amendment’s guarantee of free speech does not extend only to categories of speech that survive an ad hoc balancing of relative social costs and benefits.”⁶⁶

However, while the Supreme Court is correct in refusing to go along with this type of completely ad hoc and non-transparent First Amendment analysis, its absolute rejection of a value-based approach to these questions is naïve at best, and disingenuous at worst. If we are to be true to the Constitution, we must face the inevitable value questions underlying these determinations of First Amendment coverage. The Supreme Court is correct in stating that “a legislature may not revise the ‘judgment [of] the American people,’ embodied in the First Amendment, ‘that the benefits of its restrictions on the Government outweigh the costs.’”⁶⁷ However, the Supreme Court’s own pronouncements on this issue beg the question: exactly what is that “judgment of the American people embodied in the First

64 *Id.* at 2734 (quoting *United States v. Stevens*, 130 S. Ct. 1577, 1585 (2010)).

65 *Id.*

66 *Stevens*, 130 S. Ct. at 1585.

67 *Brown*, 131 S. Ct. at 2734 (2011) (quoting *Stevens*, 130 S. Ct. at 1585).

Amendment”)? Where is the appropriate balance struck between freedom of speech and social costs? Pursuant to Chief Justice John Marshall’s legendary admonishment, only the Supreme Court and the judicial department have the final say on what the law is.⁶⁸ One can only hope that the Supreme Court will engage in a conscientious and transparent debate regarding the values underlying the First Amendment when it engages in such a crucial and delicate balancing act.

IV. THE CASE OF FUNCTIONAL SPEECH

In the recent past, a similar situation to the ones discussed above arose when courts faced the question of whether computer source code should be considered speech under the First Amendment. On that occasion, the new arena of debate was the functional nature of computer source code.

Much of the disagreement with respect to the First Amendment coverage of source code centered on the question of how coverage is affected by source code’s functional characteristics; in other words, by the mere fact that source code can be translated and fed into a computer to have it perform a series of tasks. This disagreement was played out in a series of important litigations some years ago.⁶⁹ Let us now look at some of those cases in more detail.

⁶⁸ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177 (1803) (“It is emphatically the province and duty of the judicial department to say what the law is.”).

⁶⁹ *See DVD Copy Control Ass’n, Inc. v. Bunner*, 75 P.3d 1, 10 (Cal. 2003) (“[W]e must first determine whether restrictions on the dissemination of computer codes . . . are subject to scrutiny under the First Amendment. We conclude they are.”); *Universal City Studios, Inc. v. Reimerdes*, 82 F. Supp. 2d 211, 222 (S.D.N.Y. 2000) (“Executable computer code of the type at issue in this case does little to further traditional First Amendment interests.”); *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 304 (S.D.N.Y. 2000) (“Computer code is expressive. To that extent, it is a matter of First Amendment concern. But computer code is not purely expressive . . . Its expressive element no more immunizes its functional aspects from regulation than the expressive motives of an assassin immunize the assassin action.”), *aff’d sub nom.* *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 449 (2nd Cir. 2001); *Junger v. Daley (Junger I)*, 8 F. Supp. 2d 708, 712 (N.D. Ohio 1998), *rev’d*, *Junger v. Daley (Junger II)* 209 F.3d 481, 485 (6th Cir. 2000) (“The functional capabilities of source code, and particularly those of encryption source code, should be considered when analyzing the government interest in regulating the exchange of this form of speech.”); *Bernstein v. U.S. Dep’t of State (Bernstein I)*, 922 F. Supp. 1426, 1435 (N.D. Cal. 1996) (holding that expression of ideas translated into machine-readable code may still be speech under the First Amendment even though it is purely functional), *aff’d sub nom.* *Bernstein v. U.S. Dep’t of Justice (Bernstein II)*, 176 F.3d 1132 (9th Cir. 1999), *reh’g granted, opinion withdrawn*, *Bernstein v. U.S. Dep’t of Justice (Bernstein III)*, 192 F.3d 1308 (9th Cir. 1999); *Karn v. U.S. Dep’t of State*, 925 F. Supp. 1, 3 (D.D.C. 1996) (“[T]he plaintiff alleges that the defendants’ regulation of the diskette violates the plaintiff’s First Amendment right to freedom of speech . . . Upon consideration of the fil-

A. Instructions, Manuals and DIYs

The trial court in *Bernstein I* concluded that “the functionality of a language does not make it any less like speech.”⁷⁰ This holding was affirmed in *Bernstein II* by the Ninth Circuit court: “[W]e reject the notion that the admixture of functionality necessarily puts expression beyond the protections of the Constitution.”⁷¹

The *Bernstein I* court analogized source code to “[i]nstructions, do-it-yourself manuals, recipes, [and] even technical information about hydrogen bomb construction,” which “are often purely functional,” yet “are also speech.”⁷² The court here was referring to a series of cases that have held that publishers cannot be held liable for the use of information in publications such as instruction manuals and cookbooks.⁷³ Some of these cases, however, are not really First

ings . . . the Court shall grant the defendant’s Motion for Summary Judgment with respect to the plaintiff’s First . . . Amendment claims.”).

⁷⁰ *Bernstein I*, 922 F. Supp. at 1435 *aff’d*, *Bernstein II*, 176 F.3d 1132, *reh’g granted and opinion withdrawn*, *Bernstein III*, 192 F.3d 1308.

⁷¹ *Bernstein II*, 176 F.3d at 1142. This opinion, however, was then withdrawn and a rehearing en banc was granted. *Bernstein III*, 192 F.3d 1308. The rehearing en banc never occurred due to the amendment of the encryption regulations at issue in the case, which deprived the plaintiff of standing. *Bernstein v. U.S. Dep’t of Commerce (Bernstein IV)*, No. C 95-0582 MHP, 2004 WL 838163, at *2 n.2 (N.D. Cal. 2004) (“In January 2000, defendants added 14 C.F.R. section 740.13(e) to the Federal Register, which allows the DOC to exempt ‘publicly available’ encryption source code from license requirements. Plaintiff amended his complaint in January 2002, alleging that the changed regulations still amounted to a prior restraint under the First Amendment. The defendants brought a motion for summary judgment on the amended complaint on the grounds that he lacked the requisite standing, which this court granted on July 28, 2003.”). See also Ryan Christopher Fox, Comment, *Old Law and New Technology: The Problem of Computer Code and the First Amendment*, 49 UCLA L. REV. 871, 887–88 (2002) (“On January 14, 2000, however, the state of the law changed. The Encryption Administration Regulations were revised to allow U.S. companies to ‘have new opportunities to sell their products in the global marketplace.’ Among other changes, the revisions decontrol encryption software up to and including sixty-four bits, and allow unrestricted encryption source code to be released without review, provided that the code is not ‘subject to an express agreement for payment of a licensing fee or royalty.’ The regulations were presumably modified this way in order to support the ‘open source’ approach to software development. The revised regulations also provided for a number of other allowances that eased review of exports in other situations.” (quoting Revisions to Encryption Items, 65 Fed. Reg. 2492, 2492 (Jan. 14, 2000) (codified at 15 C.F.R. pts. 734, 740, 742, 770, 772, 774))).

⁷² *Bernstein I*, 922 F. Supp. at 1435 (citing *United States v. The Progressive, Inc.*, 467 F. Supp. 990 (W.D. Wis. 1979)).

⁷³ See, e.g., *Winter v. G.P. Putnam’s Sons*, 938 F.2d 1033, 1034 (9th Cir. 1991) (holding that the publisher of a book about mushrooms was not liable to enthusiasts who were poisoned by eating mushrooms erroneously identified through use of the book because the book’s contents were not products for the purposes of product liability law); *Walter v. Bauer*, 439 N.Y.S.2d 821, 822–23 (N.Y. Sup. Ct. 1981) (holding in a case in which a student was injured while doing a science project described in textbook that the book was

Amendment cases. Most of them are products liability cases, and the question being decided is whether the book's contents constitute a product for purposes of products liability law.

However, the holdings in some of these cases are based on First Amendment concerns.⁷⁴ In *Winter v. G.P. Putnam's Sons*, for example, the court said, "Were we tempted to create this duty, the gentle tug of the First Amendment and the values embodied therein would remind us of the social costs."⁷⁵ And in *Walter v. Bauer*, the court reasoned: "the danger of plaintiff's proposed theory is the chilling effect it would have on the First Amendment—Freedoms of Speech and Press."⁷⁶

None of these cases, however, decisively held that the "instructions" are covered by the First Amendment or told us why. Maybe the courts in these cases would not have extended strict products liability even had they found that the instruction manuals at issue were not speech for First Amendment purposes. The answer is just not clear from the opinions. So these cases are not that helpful to our analysis. Nonetheless, it can be argued that if the courts wanted to make an exception to First Amendment coverage that was justified by the functionality of these types of speech, they would have done so in these cases. Furthermore, the courts seemed to take for granted the idea that the First Amendment covers these books.

But there is, nonetheless, a group of cases that decisively held that the First Amendment covers instruction manuals and "how-to" books

not a product for the purposes of products liability law), *modified*, 451 N.Y.S.2d 533 (1982); *Way v. Boy Scouts of Am.*, 856 S.W.2d 230, 239 (Tex. App. 1993) (holding that "the ideas, thoughts, words, and information conveyed by the magazine and the shooting sports supplement [were] not products"); *Lewin v. McCreight*, 655 F. Supp. 282, 284 (E.D. Mich. 1987) (holding no products liability for a publisher for injury resulting to plaintiffs from an explosion while mixing a mordant according to a book on metalsmithing); *Cardozo v. True*, 342 So.2d 1053, 1057 (Fla. Dist. Ct. App. 1977) (holding that implied warranty on a cookbook did not extend liability to the seller for the material communicated by the book); *Roman v. City of N.Y.*, 442 N.Y.S.2d 945, 948 (N.Y. Sup. Ct. 1981) (declining to hold Planned Parenthood liable for a misstatement in a pamphlet about contraceptives); *MacKown v. Ill. Publ'g & Printing Co.*, 6 N.E.2d 526, 530 (Ill. App. Ct. 1937) (holding that the publisher was not liable for injury caused by a dandruff remedy formula recommended in a printed newspaper).

⁷⁴ See also *Jones v. J.B. Lippincott Co.*, 694 F. Supp. 1216, 1217–18 (D. Md. 1988) (reasoning that to extend liability to a publisher of a medical textbook for injury resulting from a remedy described therein "could chill expression and publication which is inconsistent with fundamental free speech principles"); *Birmingham v. Fodor's Travel Publ'ns, Inc.*, 833 P.2d 70, 75–79 (Haw. 1992) (declining to extend liability to the publisher of a travel guide for injury sustained by a reader and quoting extensively from a First Amendment case, *Alm v. Van Nostrand Reinhold Co., Inc.*, 480 N.E.2d 1263 (1985)).

⁷⁵ 938 F.2d at 1037.

⁷⁶ 439 N.Y.S.2d at 823.

such as the ones at issue in the cases discussed above. In *Alm v. Van Nostrand Reinhold Co., Inc.*, the court held that the First Amendment barred the imposition of liability on the publisher of a “how-to” book when an individual was injured while following its instructions for making a tool.⁷⁷ Similarly, the court in *Smith v. Linn* held that the First Amendment right to freedom of speech immunized a publisher of a diet book from civil liability arising out of the death of a reader who followed the diet.⁷⁸ The last of these cases was actually cited by the court in *Bernstein I*. In *United States v. The Progressive, Inc.*, the court applied First Amendment scrutiny in deciding whether to enjoin the publication of a magazine containing technical information on how to construct a hydrogen bomb.⁷⁹

These cases show that the court in *Bernstein I* was correct in holding that the First Amendment covers instructional manuals and “how-to” books. These types of speech are very much like source code in the sense that they are highly “functional.” They are mainly concerned with helping people engage in some activity by providing them with a set of instructions that they can follow. The only difference is the use of a computer. The analogy between these types of speech and source code is, therefore, quite appropriate, and leads to the conclusion that functionality, by itself, does not exclude an activity from First Amendment coverage.

B. Navigation Charts

There is another line of cases similar to the ones described above, but which seem to reach the opposite conclusion. In *Brocklesby v. United States*, the court held that a navigation chart was a product for purposes of products liability law.⁸⁰ “[W]hen inaccurate charts cause accidents, courts do not conceptualize suits against the charts’ authors as raising First Amendment questions.”⁸¹ But this statement is not exactly accurate. These cases do not really address any First Amendment questions at all.⁸² There is no discussion of the First Amendment in any of these cases.

⁷⁷ 480 N.E.2d at 1264–67.

⁷⁸ 563 A.2d 123, 126–27 (Pa. Super. Ct. 1989).

⁷⁹ 467 F. Supp. 990, 996–1000 (W.D. Wis. 1979).

⁸⁰ 767 F.2d 1288, 1294–95 (9th Cir. 1985).

⁸¹ Robert Post, *Recuperating First Amendment Doctrine*, 47 STAN. L. REV. 1249, 1254 (1995) [hereinafter Post, *Recuperating*].

⁸² See *Brocklesby*, 767 F.2d at 1292 (“The case was submitted to the jury under three theories: negligence, breach of warranty, and strict liability); *Saloomey v. Jeppesen & Co.*, 707 F.2d 671, 676–77 (2nd Cir. 1983) (applying products liability law in a wrongful death action);

Again, all of these cases are strictly products liability decisions. This could be interpreted in several ways. It could mean that these courts would not extend First Amendment *coverage* to these charts. But it could also mean that these courts would not extend First Amendment *protection*. Furthermore, it could simply mean that the courts in these cases did not address the First Amendment issues because the parties did not properly raise them. As a matter of fact, this was exactly the case in *Brocklesby*. In that case, the court stated,

*We do not address Jeppesen's claim that the First Amendment renders the theory of strict liability for a defective product inapplicable to published material such as its charts. The general rule is that an issue will not be considered for the first time on appeal. Since Jeppesen did not raise the First Amendment argument at any time below and did not object to the jury instructions on strict liability except by implication in summary judgment proceedings, Jeppesen has not properly preserved for appeal this objection to the jury instructions.*⁸³

In any case, these decisions made no First Amendment holding. Therefore, they do not constitute good precedent for the proposition that the First Amendment does not cover navigation charts. The case of navigational charts is best addressed as an issue of *protection*, not *coverage*.

The court in *Way v. Boy Scouts of America* distinguished the case of navigational charts.⁸⁴ In general, some courts have held that charts are not protected because they “are used for their physical characteristics rather than for the ideas contained in them.”⁸⁵ Professor Burk argues that source code is more akin to navigational charts than to other instructional manuals because code is used like a physical machine, just like navigational charts are used primarily for their “physical characteristics.”⁸⁶ However, it seems more logical that publishers of navigational charts were held liable *because people rely on these charts*. “Navigation charts do not receive First Amendment protection . . . because we interpret them as speaking monologically to their audience, as inviting their audience to assume a position of dependence and to rely on them.”⁸⁷

Aetna Casualty and Surety Co. v. Jeppesen & Co., 642 F.2d 339, 343 (9th Cir. 1981) (dealing with products liability law, reviewing for abuse of discretion by the trial judge, and considering due process concerns); Fluor Corp. v. Jeppesen & Co., 170 Cal. App. 3d 468 (Cal. Ct. App. 1985) (dealing only with issues of strict liability).

⁸³ *Brocklesby*, 767 F.2d at 1295 n.9 (internal citation omitted and emphasis added).

⁸⁴ 856 S.W.2d 230, 238–39 (Tex. Ct. App. 1993).

⁸⁵ RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 19 reporters' n. cmt. d (1997).

⁸⁶ Burk, *supra* note 40, at 121–22.

⁸⁷ Post, *Recuperating*, *supra* note 82, at 1254.

This is similar to the way courts have dealt with consumer product safety warnings. In that case, the courts will also intervene to protect consumers “in relationships of dependence or reliance.”⁸⁸ The courts will also deny protection to commercial speech such as product safety warnings “because consumers in such contexts are presumed to be dependent and justifiably reliant upon the care of manufacturers.”⁸⁹ In such “relationships of dependence or reliance requiring legal protection,”⁹⁰ the courts will step in because the limited value of the information being conveyed is outweighed by the threat to innocent people in the community.

The situation with respect to source code is different. Although people might sometimes stake their lives and those of others on the content of source code, they do not do so every time they use some piece of software. Programs that run airplane computers might be just as heavily relied upon as navigation charts. But *most software* is not relied upon to this extent. On the other hand, *all* navigation charts are used in this relationship of extreme dependence and reliance. Navigation charts are an extreme example of written documents that do not do very much to further First Amendment values and create a situation of great danger when people rely on erroneous information that might be included in them. *All navigation charts might therefore be excluded, but not all source code should be excluded.* The narrow exception that courts might draw for these charts does not apply to source code as a whole. This exception to First Amendment coverage (if it were created) would be based on extreme user reliance, not on functionality. In this case, as we have already seen in other contexts, the issue of functionality is being used as a proxy for some other underlying concern regarding the lack of furtherance of First Amendment values vis à vis a tangible and concrete harm to individuals. The issue here is one of reliance, not functionality.

C. Computer Source Code

The trial court in *Junger I* reasoned that

[s]ource code is “purely functional” in a way that the *Bernstein* Court’s examples of instructions, manuals, and recipes are not. Unlike instructions, a manual, or a recipe, source code actually performs the function it describes. While a recipe provides instructions to a cook, source code is a

88 Robert Post, *The Constitutional Status of Commercial Speech*, 48 UCLA L. REV. 1, 23 (2000) [hereinafter Post, *Commercial Speech*].

89 *Id.* at 23–24.

90 *Id.* at 24.

device, like embedded circuitry in a telephone, that actually does the function⁹¹

This is the same argument that Professor Burk makes. “Far from being the instruction manual to an intricate and complicated machine, computer code is in fact the machine itself.”⁹²

This argument imbues computer behavior with the inevitability that we normally ascribe to fate. It ignores the fact that source code must be compiled and executed before the computer performs any functions. The *non-expressive* acts of compiling and executing the source code can be regulated without regard to First Amendment principles. Even code that does not need to be compiled in the conventional way must be executed before it has any effect.⁹³ The choice and act of *executing* a particular piece of code for nefarious purposes in a way that harms others is what can, and should, be regulated.

Professor Burk’s argument also relies on a formalistic distinction between source code and English that is based on the fact that computers can understand and execute compiled source code. Actually, *anything can be source code if the compiler is complicated enough*. Just a few years ago, the argument could have been made that it was not hard to envision computers that would be able to respond to many verbal commands in natural language in the near future. That future, of course, is now here. What used to be a vision is now reality.

As discussed in a previous article,⁹⁴ Apple’s inclusion of Siri in the iPhone has brought to the mainstream the practice of ordering a computer to do things in natural language.⁹⁵ At present, Siri understands commands in English, Spanish, French, German, Japanese, Canadian French, Mandarin, Cantonese, Italian, and Korean.⁹⁶ Could this possibly mean that the English language has lost its First Amendment coverage, but that the Portuguese language still retains it? Will Portuguese then cease being a fully protected language un-

⁹¹ *Junger v. Daley (Junger I)*, 8 F. Supp. 2d 708, 717 (N.D. Ohio 1998) (internal citation omitted), *rev’d*, *Junger v. Daley (Junger II)*, 209 F.3d 481 (6th Cir. 2000).

⁹² Burk, *supra* note 40, at 119.

⁹³ Professor Burk talks also about computer languages such as Perl, BASIC, and Java. *Id.* at 117 & n.111. These languages do not require compiling in the traditional sense. *See id.* (“Although many computer languages require conversion of the routine to machine-readable form, some languages are interpreted rather than compiled; that is, the script read by a program called an interpreter, which executes pre-designated commands according to the script.”).

⁹⁴ *See Roig, supra* note 14, at 340 n.94 (discussing the First Amendment implications of new technology that allows computers to respond to “natural language commands”).

⁹⁵ *See Apple – iOS 7 – Siri*, APPLE, <http://www.apple.com/ios/siri/> (last visited Apr. 7, 2014).

⁹⁶ *iOS: About Siri*, APPLE, http://support.apple.com/kb/HT4992?viewlocale=en_US&locale=en_US (last visited Apr. 7, 2014).

der the First Amendment and become a functional machine equivalent not covered by the First Amendment at some indeterminate time in the future if and when Apple, Inc. sees it fit to release yet another polyglot update to the Siri software?

Of course, Siri is not alone. The world of computers responsive to natural language commands is one of the many areas of technological endeavor that is currently experiencing considerable growth.⁹⁷ The existence of Siri and other computers responsive to natural language commands cannot condemn the English language (or any other language for that matter) to the netherworlds of First Amendment invisibility. The court in *Bernstein II* was already wise to this logic years before the advent of Siri: “The fact that computers will soon be able to respond directly to spoken commands, for example, should not confer on the government the unfettered power to impose prior restraints on speech in an effort to control its ‘functional’ aspects.”⁹⁸

The question at the heart of this discussion, at the end of the day, is whether we should embrace a model of First Amendment coverage that limits the worth of our speech (maybe even our thoughts in the near future) based on the whims of technological change. Just like ordering another human being to do murder is criminal and punishable under current First Amendment doctrine, ordering a computer to do evil would likewise be an acceptable subject for regulation under that same doctrine. We need not relegate the whole of the English language to the nether realms of First Amendment anonymity simply because some might choose to make it a tool for their criminal enterprises. Similarly, we need not exclude all computer source code from First Amendment coverage because some might choose to run pernicious software.

Arguing that the functional aspects of source code require excluding all of source code from First Amendment coverage also disregards the expressive aspects of source code that further First Amendment values. In fact, the court in *Junger I* implicitly recognized the inherent commingling of functional and expressive aspects in source code. After apparently stating that source code was not speech covered by the First Amendment, the court went on to apply

⁹⁷ See Natasha Singer, *The Human Voice, as Game Changer*, N.Y. TIMES, Apr. 1, 2012, at MB NJ 1 (discussing a series of recent developments and ongoing projects involving voice operated machines).

⁹⁸ *Bernstein v. United States Dep’t of Justice (Bernstein II)*, 176 F.3d 1132, 1142 (9th Cir. 1999), *reh’g granted, opinion withdrawn*, 192 F.3d 1308 (9th Cir. 1999).

the *O'Brien* intermediate scrutiny test to the regulations at issue.⁹⁹ Technically, then, the court in *Junger I* held that source code was an “expressive means for the exchange of ideas” under *O'Brien*, and was, therefore, subject to First Amendment coverage.¹⁰⁰ So even the court in *Junger I* chose to not exclude all source code from any degree of First Amendment coverage at all.

Professor Burk draws an analogy between source code and two activities that conveyed specific meaning but that, nonetheless, we would probably say should not be covered by the First Amendment. He talks about the racially biased bridge designs of Robert Moses, who made his overpasses on Long Island expressways low to “preclude low-income public transportation riders—primarily African-Americans—from reaching Long Island Parks.”¹⁰¹ He also mentions the Wang Writer, a word processor that was “designed around certain assumptions about the duties and abilities of secretaries,”¹⁰² primarily women, thereby conveying a male chauvinist point of view. Professor Burk argues that these two things might convey messages, but they are primarily functional and therefore not to be considered speech.¹⁰³ He then argues that source code is more like these overpasses than like a book.¹⁰⁴

But, the reason why we would exclude the overpasses and the Wang Writer from First Amendment coverage is not because they are functional, it is because they are not communicative enough. They do not pass the *Spence-Hurley* test. Not enough social conventions and context exist to make it likely enough that very many people would understand the message being conveyed. As Professor Burk argues, “one suspects that it is only because the overpasses did not overtly communicate racism that they were instantiated in stone”¹⁰⁵ Source code, on the other hand, is capable of conveying a message to those that can read it which is very clear and precise, as we discussed previously. Source code passes the *Spence-Hurley* test. The analogy is therefore misguided. This is yet another example of the issue of functionality being used as a proxy for the furthering of another hidden value, in this case, communication.

99 *Junger v. Daley*, 8 F. Supp. 2d 708, 721 (N.D. Ohio 1998), *rev'd*, 209 F.3d 481 (6th Cir. 2000).

100 *Junger I*, 209 F.3d at 485.

101 Burk, *supra* note 40, at 113.

102 *Id.* at 113–14.

103 *Id.* at 114 (“Such functional ‘expression’ appears to lie within the expressive kernel that does not rise to the level of First Amendment protection.”).

104 *Id.* at 116–21.

105 *Id.* at 114.

The court in *Universal City Studios, Inc. v. Reimerdes* initially argued that source code used for facilitating the copying of films in DVDs was not covered by the First Amendment because its “expressive aspect appears to be minimal when compared to its functional component.”¹⁰⁶ The court balanced the expressiveness of the source code at issue against its functionality and determined that function won out.¹⁰⁷ “In determining the constitutionality of governmental restriction on speech, courts traditionally have balanced the public interest in the restriction against the public interest in the kind of speech at issue.”¹⁰⁸ However, the cases cited by the court in *Reimerdes* dealt with specific types of disfavored speech.¹⁰⁹ We must remember that those types of speech *are not disfavored because of their functionality*. There is no mention in such cases of functionality as a disfavored quality of speech. The court in *Reimerdes* balanced something else entirely, and its reliance on the precedent it cites was misguided.

I believe it is more likely that the court in *Reimerdes* was actually engaging in the kind of analysis relevant to the issue of First Amendment *protection*. In that case, the court’s holding in *Reimerdes* would be completely irrelevant to the question discussed in this Article: First Amendment *coverage*. In fact, this appears to be the approach taken by both the district court itself in an ensuing opinion in the same case, and the Court of Appeals for the Second Circuit in an opinion affirming the district court.¹¹⁰ Specifically, the circuit court held that “computer code, and computer programs constructed from code can merit First Amendment protection”¹¹¹ The circuit court then proceeded to take into account the balance between the expressive and functional aspects of the source code at issue when analyzing the issue of the scope of *protection* to be extended to it, and the applicable level of scrutiny.¹¹² This is consistent with the conclusion that source code must be deemed *covered* by the First Amend-

¹⁰⁶ 82 F. Supp. 2d 211, 222 (S.D.N.Y. 2000).

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 221.

¹⁰⁹ *Id.* at 221 n.44 (considering *Roth v. United States*, 354 U.S. 476 (1957) (dealing with obscenity), *Time, Inc. v. Hill*, 385 U.S. 374 (1967) (dealing with privacy), and *N.Y. Times v. Sullivan*, 376 U.S. 254 (1964) (dealing with libel)).

¹¹⁰ *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 327 (S.D.N.Y. 2000) (“As computer code—whether source or object—is a means of expressing ideas, the First Amendment must be considered before its dissemination may be prohibited or regulated. . . . But that conclusion still leaves for determination the level of scrutiny to be applied in determining the constitutionality of regulation of computer code.”), *aff’d sub nom.* *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2nd Cir. 2001).

¹¹¹ *Corley*, 273 F.3d at 449.

¹¹² *Id.* at 449–53.

ment, and that any questions regarding the regulation of its functional aspects must then be analyzed in terms of how much *protection* will be afforded, based on traditional First Amendment doctrine.

D. Speech Tantamount to Criminal Conduct

There is one last class of cases in which the functionality of a type of speech might be thought of as having something to do with the exclusion of it from First Amendment coverage. In *Rice v. Paladin Enterprises, Inc.*, the court held that an instructional book on how to become a hit man was not covered by the First Amendment.¹¹³ At first glance, one might be tempted to think that this holding is premised on the functional nature of this instructional manual. However, this case requires more than just functionality for exclusion from First Amendment coverage. “[S]peech which, in its effect, is tantamount to legitimately proscribable nonexpressive conduct may itself be legitimately proscribed, punished, or regulated incidentally to the constitutional enforcement of generally applicable statutes.”¹¹⁴ As the Supreme Court put it,

It rarely has been suggested that the constitutional freedom for speech and press extends its immunity to speech or writing used as an integral part of conduct in violation of a valid criminal statute. We reject the contention now. . . . [I]t has never been deemed an abridgment of freedom of speech or press to make a course of conduct illegal merely because the conduct was in part initiated, evidenced, or carried out by means of language, either spoken, written, or printed.¹¹⁵

It is not the functionality of the speech that excludes it from coverage, it is the fact that it constitutes a crime. “[S]peech is not protected by the First Amendment when it is the very vehicle of the crime itself.”¹¹⁶

This is also the reason why the First Amendment was held to not cover the defendant’s speech in urging the filing of false tax returns in *United States v. Kelley*.¹¹⁷ The same logic was also used by the Ninth Circuit court in *United States v. Mendelsohn* in upholding the conviction of defendants who “knew that [their computer program] was to be used as an integral part of a bookmaker’s illegal activity, helping

113 128 F.3d 233, 242 (4th Cir. 1997) (“[L]ong established caselaw provides that speech . . . that constitutes criminal aiding and abetting does not enjoy the protection of the First Amendment”).

114 *Id.* at 243.

115 *Giboney v. Empire Storage and Ice Co.*, 336 U.S. 490, 498, 502 (1949) (citations omitted).

116 *United States v. Varani*, 435 F.2d 758, 762 (6th Cir. 1970).

117 769 F.2d 215, 217 (4th Cir. 1985).

the bookmaker record, calculate, analyze, and quickly erase illegal bets.”¹¹⁸ The court in that case held that the computer program was “too instrumental in and intertwined with the performance of criminal activity to retain first amendment [sic] protection.”¹¹⁹ It was “so close in time and purpose to a substantive evil as to become part of the crime itself.”¹²⁰

These activities, then, were excluded from First Amendment coverage *because they were crimes, not because they were functional*. These cases should allay any fears that First Amendment coverage will let programmers commit all kinds of crimes without being punished. The creation of source code that is so instrumental to criminal behavior can still be regulated. And the execution of source code that harms others can also be regulated.

E. Hidden Variables

We have seen how functionality is not a reason for excluding activities from First Amendment coverage. Extreme user reliance, lack of communicative value, and the existence of criminal behavior and intent are the things that are at work in all these cases. Functionality by itself is not enough to exclude an activity from the realm of speech. The Sixth Circuit Court of Appeals got it exactly right in *Junger II* when it held that “[t]he fact that a medium of expression has a functional capacity should not preclude constitutional protection. Rather, the appropriate consideration of the medium’s functional capacity is in the analysis of permitted government regulation.”¹²¹ First Amendment “protection is not reserved for purely expressive communication The functional capabilities of source code . . . should be considered when analyzing the governmental interest in regulating the exchange of this form of speech.”¹²²

This is a question of First Amendment protection, not of coverage. We might find that the more functional a particular kind of speech is, the more pressing the need for government regulation will be. Whether regulation is justified in a particular case, however, is a completely different question, and it is a question that must be answered “by reference to First Amendment doctrine and analysis.”¹²³

118 896 F.2d 1183, 1185–86 (9th Cir. 1990).

119 *Id.* at 1186.

120 *Id.* (quoting *United States v. Freeman*, 761 F.2d 549, 552 (9th Cir. 1985)).

121 *Junger v. Daley*, 209 F.3d 481, 484 (6th Cir. 2000).

122 *Id.* at 484–85.

123 *Post, Encryption, supra* note 13, at 714.

CONCLUSION

New technologies breed fear. And fear necessitates a reaction. Courts and legislatures are most certainly not immune to reactionary tendencies in the face of their own, and society's, collective fear. As the Free Speech Clause itself teaches us, however, the best antidote for fear is a free and open discussion of the causes and solutions relevant to that which makes us afraid. As we aspire to harness the great power that emerging information technologies grant us, we must engage in a conscientious and transparent analysis of the values that underlie First Amendment doctrine as we attempt to define, redefine and refine the contours of "speech." This is the only way of guaranteeing that the strictures of the law remain equal to the aspirations of our collective spirit.