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ENCRYPTION AND THE PRESS CLAUSE

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Almost twenty years ago, a hostile debate over whether government could regulate encryption—later named the Crypto Wars—seized the country. At the center of this debate stirred one simple question: is encryption protected speech? This issue touched all branches of government percolating from Congress, to the President, and eventually to the federal courts. In a waterfall of cases, several United States Court of Appeals appeared to reach a consensus that encryption was protected speech under the First Amendment, and with that the Crypto Wars appeared to be over, until now.

Nearly twenty years later, the Crypto Wars have returned. Following recent mass shootings, law enforcement has once again questioned the legal protection for encryption and tried to implement "backdoor" techniques to access messages sent over encrypted channels. In the case, Apple v. FBI*, the agency tried to compel Apple to grant access to the iPhone of a San Bernardino shooter. The case was never decided, but the legal arguments briefed before the court were essentially the same as they were two decades prior. Apple and amici supporting the company argued that encryption was protected speech.*

While these arguments remain convincing, circumstances have changed in ways that should be reflected in the legal doctrines that lawyers use. Unlike twenty years ago, today surveillance is ubiquitous, and the need for encryption is no longer felt by a seldom few. Encryption has become necessary for even the most basic exchange of information given that most Americans share "nearly every aspect of

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their lives—from the mundane to the intimate" over the Internet, as stated in a recent Supreme Court opinion.[1]

Given these developments, lawyers might consider a new justification under the Press Clause. In addition to the many doctrinal concerns that exist with protection under the Speech Clause, the Press Clause is normatively and descriptively more accurate at protecting encryption as a tool for secure communication without fear of government surveillance. This Article outlines that framework by examining the historical and theoretical transformation of the Press Clause since its inception.

[1] Riley v. California, 134 S. Ct. 2473, 2490 (2014).

> What is the liberty of the press? Who can give it any definition, which would not leave the utmost latitude for evasion? I hold it to be impracticable; and from this I infer, that its security, whatever fine declarations may be inserted in any constitution respecting it, must altogether depend on public opinion, and on the general spirit of the people and of the government. – Alexander Hamilton, Federalist 54.
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> The telegraph, telephone, radio, and especially the computer have put everyone on the globe within earshot . . . . We think we're whispering, but we're really broadcasting. – Steven Levy.

INTRODUCTION

The First Amendment houses the Press Clause, one of the most important clauses in the United States Constitution. The Amendment states, "Congress shall make no law . . . abridging the freedom of speech, *or of the press*."[2] While the neighboring Speech Clause is the dominant provision under which courts have protected encryption, the Press Clause appears to offer an even stronger normative and descriptive rationale for this tool because of the Founders' intention that the Press Clause be used as a structural protection against government control over information. Indeed, the Founders established the freedom of the press in the newly-formed country to prevent the type of abuse practiced by the British Crown for centuries.[3] Analogizing the Founders' reasoning for the Press Clause to the present-day needs for protecting encryption reveals a novel justification that could be employed in future encryption cases.

Unfortunately, after nearly 100 years of jurisprudence, the Press Clause is still often treated as a supportive afterthought to the Speech Clause. This disregard has largely been borne out of the confusion over what the word "press" means. Traditionally, the "press" has meant the institution of the news media, composed of professional journalists who act as government watchdogs. Many courts and

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[2] U.S. CONST. amend. I (emphasis added).

[3] *See, e.g.*, Entick v. Carrington, 19 How. St. Tr. 1029 (1765) (dismissing a general warrant against a dissenting printer); Wilkes v. Wood, 19 How. St. Tr. 1153 (1763) (same).

academics have endorsed this press-as-industry approach.[4] More recently, courts and academics have adopted the "press-as-technology" approach. Under this interpretation, the Press Clause protects individuals' use of tools, like the printing press, that help create, populate, and distribute information.[5] Justice Scalia most recently employed this interpretation in dicta of the infamous Supreme Court case *Citizens United*.[6] There, he diminished the press-as-industry approach, and endorsed the broader interpretation of freedom of the press as a right of all citizens to communicate with one another.[7] As Professor Michael McConnell has written, this

[4] *See* LEE BOLLINGER, IMAGES OF A FREE PRESS 20 (1991) (stating that "the government is untrustworthy when it comes to regulating public debate, for it will forever try to recapture its authoritarian powers" and the press is "the public's representative, its agent, helping stand guard against the atavistic tendencies of the state"); LEONARD W. LEVY, EMERGENCE OF A FREE PRESS, at xii (1985) (concluding that the Framers believed press freedom "meant that the press had achieved a special status as an unofficial fourth branch of government, 'the Fourth Estate'"); Floyd Abrams, *The Press Is Different: Reflections on Justice Stewart and the Autonomous Press*, 7 HOFSTRA L. REV. 563, 592 (1979) (stating that, at times, the press manages to "serve[] as a vigilant protector of the public from its government"); David A. Anderson, *The Press and Democratic Dialogue*, 127 HARV. L. REV. 331, 334 (2014) (arguing that "the press is one of the entities that usefully serve these functions [as a check on government overreach], and is the one the Framers saw fit to recognize"); Vincent Blasi, *The Checking Value in First Amendment Theory*, 1977 AM. B. FOUND. RES. J. 521, 538 (1977); Potter Stewart, *Or of the Press*, 26 HASTINGS L.J. 631, 634 (1975) ("The primary purpose of the constitutional guarantee of a free press was a similar one: to create a fourth institution outside the Government as an additional check on the three official branches.").

[5] *See* Citizens United v. Fed. Election Comm'n, 558 U.S. 310, 390-91 n.6 (2010) (Scalia, J., concurring) ("It is passing strange to interpret the phrase 'the freedom of speech, or of the press' to mean, not everyone's right to speak or publish, but rather everyone's right to speak or the institutional press's right to publish."); First Nat'l Bank of Boston v. Bellotti, 435 U.S. 765, 800 n.5 (1978) (Burger, C.J., concurring) (arguing that "'press,' the word for what was then the sole means of broad dissemination of ideas and news, would be used to describe the freedom to communicate with a large, unseen audience," even using new technologies that were not known to the Framers); David Lange, *The Speech and Press Clauses*, 23 UCLA L. REV. 77, 90 (1975) (arguing the notion that it is unlikely that the Framers intended to protect modern journalists); Michael W. McConnell, *Reconsidering* Citizens United *as a Press Clause Case*, 123 YALE L.J. 412, 454 (2013) (describing the freedom of the press as the right to "disseminat[e] . . . opinion or information to the public through media or communications"); Eugene Volokh, *Freedom for the Press as an Industry, or for the Press as a Technology? From the Framing to Today*, 160 U. PA. L. REV. 459, 505 (2012) ("Under the mass-communications-more-protected view, the Free Press Clause provides special protection to all users of the press-as-technology.").

[6] *See Citizens United*, 558 U.S. at 342.

[7] *Id*. at 391 n.6 (Scalia, J., concurring).

interpretation of the Clause protects "the right of any person to use the technology of the press to disseminate opinions."[8]

At the outset, it is important to state that this Article does not wholly endorse[9] either interpretation of the Press Clause.[10] Instead, this Article focuses on the more fundamental first order question: what is the *purpose* of the Press Clause? This Article attempts to answer that question by examining the Founders' intentions through an examination of historical records. Through this analysis, this Article determines that the likely purpose behind the Press Clause was not specifically aimed at individuals or professional journalists.[11] Instead, the Clause was targeted at government. The Press Clause was intended to provide structural protection *against* arrant state control over the *flow of information*.[12] Zooming out of the press-as-technology versus press-as-industry debate reveals a broader interpretation of the Press Clause as a constitutional protection against state censorship by securing

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[8] McConnell, *supra* note 5, at 441; *see also* David B. Sentelle, *Freedom of the Press: A Liberty for All or a Privilege for a Few?*, 2014 CATO SUP. CT. REV. 15, 24 (2014) ("The original meaning of 'the press,' then, was not limited to an institution called 'the press.'").

[9] Although this article affirms parts the press-as-technology approach, it does not endorse the holding of *Citizens United*. *See Citizens United*, 558 U.S. at 342 (stating that "political speech does not lose First Amendment protection 'simply because its source is a corporation'" (quoting *Bellotti*, 435 U.S. at 784)). As Dean Robert Post has said, the *Citizens United* Court's decision is both "fanciful and baffling." ROBERT C. POST, CITIZENS DIVIDED: CAMPAIGN FINANCE REFORM AND THE CONSTITUTION 71 n.* (2014); *see also* Randall P. Bezanson, *Whither Freedom of the Press?*, 97 IOWA L. REV. 1259, 1263 (2012) ("The second issue raised by the Citizens United language is that its conclusion that the free-press guarantee of the First Amendment affords no greater or different protection to the press is almost offhanded.").

[10] Although this article may endorse elements of the press-as-technology interpretation of the Press Clause, it does not intend to make any further comment on the meaning of *Citizens United.* For the author's other writings on *Citizens United*, see Victoria Baranetsky, *The Economic Liberty Approach of the First Amendment: A Story of* American Booksellers v. Hudnut, 47 HARV. C.R.–C.L. L. REV. 169 (2012).

[11] *See* Anderson, *supra* note 4, at 334 (noting that determining what "press" under the Press Clause means should "develop incrementally; it is unrealistic to expect its constitutional meaning to emerge full-blown").

[12] *See* Sonja R. West, *Press Exceptionalism*, 127 HARV. L. REV. 2434, 2436 (2014) (describing the Supreme Court's different treatment of the Speech and Press Clauses); Sonja R. West, *The 'Press' Then & Now*, 77 OH. STATE L. REV. 49, 54, 67 (2016) (stating the "emphasis on the structural function is found in the early documents, which repeatedly hailed press freedom" as "defend[ing] and protect[ing] the people and the republic," and stating it "was rarely discussed as a matter of individual expressive value" or "means to individual self-fulfillment or self realization").

channels of communication for individuals.[13] This is distinguishable from the positive right of an individual *to speak*, as is ensured under the Speech Clause.[14]

After establishing this point, this Article then finds that encryption falls squarely within this protection of the Press Clause. Encryption[15]—a tool for concealing information—obstructs government from controlling access to certain information.[16] By increasing trust among citizens, encryption enables speakers to freely express themselves unafraid of government retribution.[17] In this way, encryption is like a modern day printing press, increasing individual control over the spread of information to different audiences at different rates without fear of government intrusion.[18]

Moving forward, Section I of this Article will provide historical support[19] to assert that the Founder's ultimate and distinct purpose for including the Press Clause was to build a structural protection against government control over methods of

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[13] This argument is akin to the argument made by Vincent Blasi. *See* Blasi, *supra* note 4, at 606 ("These news sources play a unique role in the checking process because they sometimes have access to inside information relating to the misconduct of public officials—information of the highest possible significance under the checking value.").

[14] The Speech Clause does not, however, only protect speech in its positive aspect. *See* W. Va. State Bd. of Educ. v. Barnette, 319 U.S. 624 (1943) (The right of freedom of thought and of religion as guaranteed by the Constitution against State action includes both the right to speak freely and the right to refrain from speaking at all . . . ."); Wooley v. Maynard, 430 U.S. 705 (1977) (recognizing the same).

[15] Note that there are various definitions of encryption.

[16] *See, e.g.*, Joseph Menn, *Exclusive: Yahoo Secretly Scanned Customer Emails for U.S. Intelligence—Sources*, REUTERS (Oct. 4, 2016), http://www.reuters.com/article/us-yahoo-nsa-exclusive-idUSKCN1241YT.

[17] *Cf.* American Civil Liberties Union and Human Rights Watch, *With Liberty to Monitor All*, HUMAN RIGHTS WATCH (July 28, 2014), https://www.hrw.org/report/2014/07/28/liberty-monitor-all/how-large-scale-us-surveillance-harming-journalism-law-and.

[18] *See* Susan McGregor, *Digital Security and Source Protection for Journalist*s, TOW CENTER FOR DIGITAL JOURNALISM (July 16, 2014), http://towcenter.org/digital-security-and-source-protection-for-journalists-research-by-susan-mcgregor/.

[19] *See generally* Patrick J. Charles & Kevin Francis O'Neill, *Saving the Press Clause from Ruin: The Customary Origins of a "Free Press" as Interface to the Present and Future*, 2012 UTAH L. REV. 1691, 1693 n.6, 1703 (discussing the dearth of historical analysis of the Press Clause in the writings of esteemed press scholars like David Anderson, Eugene Volokh, and Sonja West, but also stating that despite such dearth, "[i]nterpreting the Constitution through the events of the American Revolution . . . is crucial to understanding the evolution of eighteenth-century political and constitutional thought"—and that this is particularly important for the press clause because "[u]nlike most Anglo-American rights, the development of a free press stems from customary practice").

disseminating information.[20] Having understood this fundamental point, Section II will then discuss how both interpretations (press-as-industry and press-as-technology) agree on and start from this fundamental point.[21] Finally, Section III considers how the Press Clause, under either interpretation, more soundly protects encryption than the Speech Clause.[22]

I
THE PRESS CLAUSE: THE FOUNDERS' INTERPRETATION

The Press Clause has an essential role within our Constitutional order. As discussed below, many of the Founders believed the Clause to be the most important privilege within the Bill of Rights.[23] Over the past half-century, however, the clause has lost this prestige.[24] In many ways this precipitous fall is due to the divide caused by warring interpretations of the meaning of "the press." Moving past this bifurcation, this Section attempts to uncover a more unified, foundational account of the Clause as a structural protection for citizens to control where and how one may share information. It argues that the Founders crafted the Press Clause to provide protection for physical spaces, such as the printer's office, one's own home, and other spheres where information tools could be leveraged without government intrusion, an interpretation with which both sides of the debate might agree. Today, that protection can be broadened to other zones like smartphones, encryption, and similar tools that capture our most private communications.

A. The Framers' Understanding

The Framers understood freedom of the press to be one of, if not, *the most* vital constitutional protections.[25] James Madison, the drafter of the First Amendment, called the liberty of the press "inviolable" and the "choicest privileges of the people."[26] Patrick Henry named "liberty of the press" as one of two "peak

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[20] *See infra* Part I.

[21] *See infra* Part II.

[22] *See infra* Part III.

[23] JEFFREY A SMITH, PRINTERS AND PRESS FREEDOM: THE IDEOLOGY OF EARLY AMERICAN JOURNALISM 69 (1988) (quoting Madison as stating that "freedom of the press and rights of conscience" are the "choicest privileges of the people," and that Jefferson said that liberties such as freedom of the press should be protected 'in all cases' rather than none").

[24] *See* David Anderson, *Freedom of the Press*, 80 TEX. L. REV. 429, 448 (2002) (referring to the period between the 1930s and 1960s as "the heyday of the Press Clause in the Supreme Court").

[25] *See* SMITH, *supra* note 23, at 68 (stating "two of the most populous states, Virginia and New York, demanded a press amendment and were joined by North Carolina, which refused to approve the Constitution until a bill of rights was provided"); *see also* Blasi, *supra* note 4, at 527.

[26] West, *The 'Press' Then & Now*, *supra* note 12, at 23 (citing SMITH, *supra* note 23, at 166).

concerns" for the Bill of Rights (along with trial by jury).[27] Thomas Jefferson also distinguished having free presses as the chief component of a healthy government.[28]

Its importance was borne out of its structural role.[29] As Justice Stewart explained, the primacy of the Press Clause is because it is "a structural provision" operating "outside the Government as an additional check on the three official branches."[30] Vincent Blasi has expounded that this "checking value" of freedom of the press makes the Clause the most powerful and dangerous constitutional privilege, informing the structure of democracy.[31] "It is a value grounded in distrust of government," wrote Lucas Powe, that "assumes a darker side of human nature and holds that those who wield governmental power will be prone to overreaching, and thus that it is essential to provide information for a resisting citizenry."[32] Thus, the freedom of press has long been described as a resistance mechanism against state power.

Both interpretations of the Press Clause have acknowledged its structural role as removing government from the private realm. For instance, press-as-industry academics acknowledge the structural role of the Clause as protecting an entirely separate institution of the Fourth Estate—an independent watchdog of the government.[33] Similarly, press-as-technology academics have expanded the structural protection beyond the news media[34] to all individuals' property where

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[27] NEIL H. COGAN, THE COMPLETE BILL OF RIGHTS 642 (1997) (quoting Patrick Henry naming several protections necessary for the Bill of Rights, but leaving out the freedom of speech).

[28] *See* LEONARD LEVY, LEGACY OF SUPPRESSION: FREEDOM OF SPEECH AND PRESS IN EARLY AMERICAN HISTORY 300 (1960) (quoting Thomas Jefferson for his belief that only lying offenders should be prosecuted).

[29] *See* SMITH, *supra* note 23, at 70 (quoting Madison for stating that the Bill of Rights would "prevent abuses of power, would satisfy the public, and would contribute to political stability" and that through the amendments "'[the] people shall not be deprived or abridged of their right to speak, to write or to publish their sentiments; and the freedom of the press, [w]as one of the great bulwarks of liberty, shall be vioble'"); *id.* at vii (stating "[t]he basis of this structural rationale for press freedom lies in the political and intellectual experiences of eighteenth-century America"); *see also* West, *The 'Press' Then & Now*, *supra* note 12, at 67 (stating "the evidence suggests [the framing generation] believed the structural function to be of paramount importance").

[30] Stewart, *supra* note 4, at 634.

[31] Blasi, *supra* note 4, at 527.

[32] L.A. SCOTT POWE, THE FOURTH ESTATE AND THE CONSTITUTION: FREEDOM ON THE PRESS IN AMERICA 238 (1992).

[33] *See id*. at 260-61 (noting Burke's characterization of the press as the "Fourth Estate").

[34] *See* Volokh, *supra* note 5, at 469 ("It seems unlikely that the Framers would have secured a special right limited to this small industry, an industry that included only part of the major contributors to public debate."); *see also* Lange, *supra* note 5, at 90 (arguing that the notion that

channels of information were developed. Under this analysis, the Press Clause protects against government intrusions into homes and offices in which citizens use technology to combat government propaganda.[35] It also protects the private tools and technology used in these spaces, such as the printing press and pamphlets.[36] Under both approaches, the structural role was intended by the Founders to be particularly protective in circumstances where it could "effectively expose deception in government."[37]

These interpretations lean on a long history of writers who experienced oppressive regulations on printing stemming as far back as the sixteenth century in

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the Framers intended to protect modern journalists is unpersuasive, in part, because he said that the partisan press of the day "bore little relationship to . . . the press of Hearst and Pulitzer").

[35] *See Entick*, 19 How. St. Tr. 1029; *Wilkes*, 19 How. St. Tr. 1153.

[36] *See* Jasper L. Tran, *Press Clause and 3D Printing*, 14 NW. J. TECH. & INTELL. PROP. 75, 79 (2016) (arguing that 3D printers are "the modern equivalent of the printing press" protected by the First Amendment); *see also* Volokh, *supra* note 5, at 462 n.10 ("I speak here of communications technologies that today serve the role the printing press did in the 1700s, not just of the printing press as such."); *see also id*. (citing First Nat'l Bank of Boston v. Bellotti, 435 U.S. 765, 800 n.5 (1978) (Burger, C.J., concurring) (stating "[i]t is not strange that 'press,' the word for what was then the sole means of broad dissemination of ideas and news, would be used to describe the freedom to communicate with a large, unseen audience," even using new technologies that were not known to the Framers)); *cf*. Charles & O'Neill, *supra* note 19, at 1701 ("With only one publishing technology available circa 1791, it is impossible to ascertain how the founding generation viewed the Press Clause as an evolving technological right of the people to employ free speech. Are we to believe the founding generation had the foresight to predict other popular publishing mediums such as radio, television, and the Internet? The answer remains no.").

[37] Andrew Bradford, *Sentiments on the Liberty of the Press*, AM. WKLY. MERCURY (Phila.), Apr. 25, 1734, reprinted in FREEDOM OF THE PRESS FROM ZENGER TO JEFFERSON 38, 41-42 (Leonard W. Levy ed., 1966) (discussing freedom of the Press as the "great Palladium of all our other Liberties" because it is the "Liberty of detecting the wicked and destructive Measures of certain Politicians; of dragging Villany out of its obscure lurking Holes, and exposing it in its full Deformity to open Day; of attacking Wickedness in high Places, of disentangling the intricate Folds of a wicked and corrupt Administration, and pleading freely for a redress of Grievances"); *see also* Near v. Minnesota, 283 U.S. 697, 719-20 (1931) ("Meanwhile, the administration of government has become more complex, the opportunities for malfeasance and corruption have multiplied, crime has grown to most serious proportions, and the danger of its protection by unfaithful officials and of the impairment of the fundamental security of life and property by criminal alliances and official neglect, emphasizes the primary need of a vigilant and courageous press, especially in great cities. The fact that the liberty of the press may be abused by miscreant purveyors of scandal does not make any the less necessary the immunity of the press from previous restraint in dealing with official misconduct."); New York Times Co. v. United States, 403 U.S. 717 (1971) (Black, J. concurring).

Great Britain.[38] While many credit eighteenth century thinkers like William Blackstone, Thomas Gordon, and John Trenchard with establishing the Anglo-American origins of freedom of the press, they overlook that these theorists, who heavily influenced the founding generation, borrowed their views from earlier writers who experienced firsthand brutal punishment from the British government for using early private printing presses.[39] Perhaps it was because this initial cadre of writers received brutal punishment for sharing information that they were able to highlight the importance of freedom of the press so precisely.

During the seventeenth century, the Crown imposed corporal and even capital punishment on those who used new printing technology of their own accord. Indeed, "[s]hortly after the first printing press arrived at Westminster in 1476, the Crown established a primitive schem[a]" of censorship for printing materials.[40] At the time, the freedom of the press had not been codified—not in the Magna Carta, nor the 1689 English Bill of Rights, nor the 1701 Act of Settlement.[41] Because of this lacuna, the Tudors were easily able to establish a "whole machinery of censorship and control" that resulted in some of the most violent practices to individuals.[42] Historian Frederick Siebert traces the rapid rise of regulation over information tools during the reigns of Henry VIII to Elizabeth I, including a patchwork of proclamations, patents, trade regulations, judicial decrees, and Privy Council and parliamentary actions—all penalizing individuals for using printing presses and other tools in their homes.[43]

Siebert writes that the most punishing edicts occurred under the reign of Elizabeth I (1533-1603), through a regulation called the Star Chambers Decree of

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[38] *See* Edward S. Lee, *Freedom of the Press 2.0*, 42 GA. L. REV. 309, 320 (2008) ("The protection for an individual's use of the printing press—free of intrusive governmental regulation—was a response to the repressive regime of strict regulation of the press that enabled the Crown and later Parliament to control the production of all printed materials in England from the 1500s until the early 1700s."); *see generally* MARK ROSE, AUTHORS AND OWNERS 12 (1993); FREDERICK S. SIEBERT, FREEDOM OF THE PRESS IN ENGLAND 346-92 (1965); Edward A. Bloom, *Neoclassic "Paper Wars" for a Free Press*, 56 MOD. LANGUAGE REV. 481 (1961); Douglas M. Ford, *The Growth of the Freedom of the Press*, 4 ENG. HIST. REV. 1 (1889); Charles & O'Neill, *supra* note 19, at 1703 ("Unlike most Anglo-American rights, the development of a free press stems from customary practice" during the eighteenth century, "the bowels of the print culture itself.").

[39] *See* Charles & O'Neill, *supra* note 19, at 1703.

[40] Michael W. Price, *Rethinking Privacy: Fourth Amendment 'Papers' And the Third-Party Doctrine*, 8 J. NAT'L SEC. L. POL'Y 247, 251 (2016).

[41] *Id.*

[42] CYNDIA S. CLEGG, PRESS CENSORSHIP IN ELIZABETHAN ENGLAND 3 (1997) (citing SIEBERT, *supra* note 38); SIEBERT, *supra* note 38, at 5.

[43] *See* SIEBERT, *supra* note 38, at 47-63

1586 and the Stationers' Company.[44] In 1643, Parliament established a consortium of printers, called the Stationers' Company, which was permitted by license to maintain a monopoly on printing in exchange for suppressing licentious remarks about the government.[45] The Company had complete control over the "right to copy" and release information.[46] Any person trying to operate outside this system was immediately disciplined. Non-government sanctioned books or pamphlets were marked "seditious" or "offensive" and the Decree made unofficial presses "subject to warrantless searches" that could "result[] in destruction of the nonconforming printing press."[47] To enforce these rules, government surveillance over printing extended to searches of "people's houses to confiscate illegal presses and materials."[48]

These draconian Elizabethan rules worsened during the Stuart kings of the seventeenth century. In 1662 Parliament, passed the Printing Act which permitted enforcement of the Stationer system by "death or otherwise"[49] and decreased the number of Stationer printers in England to just twenty.[50] In 1683, Algernon Sydney, a member of Parliament and an outspoken critic of King Charles of England, was executed for his unpublished writings "found in [the privacy of] his home."[51] Sydney's claim that the writings were never distributed nor intended for publication made little difference to the government.[52] The mere fact that Sydney challenged the government's regime by privately possessing materials was by itself punishable by death. For the decades that followed, the British government prosecuted individuals like Sydney to obtain complete control over the flow of information.

During that time several important political thinkers publicly criticized the Crown's tyrannical actions in writings that would later come to influence the drafters of the First Amendment. For example, just sixteen months after Parliament passed the Star Chambers Act, poet and political theorist John Milton penned *Areopagitica*, as the author explained, "to deliver the press from restraints with which it was

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[44] *See* Lee, *supra* note 38, at 315-16, 339-56.
[45] *See* SIEBERT, *supra* note 38, at 47-63.
[46] *Id*.
[47] Lee, *supra 38,* at 321 (referencing the Star Chamber Ordinance of 1586, at §§ 1-2).
[48] *Id.* at 315-16, 339-56.
[49] *Id.*
[50] *See id*.
[51] *Id.*
[52] *See* NANCY C. CORNWELL, FREEDOM OF THE PRESS RIGHTS AND LIBERTIES UNDER THE LAW 24 (2004).

encumbered."[53] The freedom of the press, he argued, had the "power of determining what was true and what was false, what ought to be published and what [ought] to be suppressed."[54] Ultimately, Milton argued, truth depended on the people, not the government, controlling what information could be published and disseminated expeditiously.

Milton was certainly not alone.[55] His contemporaries, similarly influential to the Founders, including Henry Robinson, William Walwyn, Roger Williams, John Lilburne, John Saltmarsh, and John Goodwin, also expounded on the importance of freedom of the press. Robinson, for instance, advocated for the "free trading of truth", and wrote, referring to the printing press, that "no man can have a natural monopoly of [it]."[56] Walwyn, a pamphleteer himself and a central figure of the Levellers movement (which advocated for popular sovereignty during the English Civil War) underscored that the press should be free from government "for any man" not just those licensed by government.[57] In particular, Walwyn wrote that this also meant "freedom for [all printing] materials."[58]

While Parliament eventually abolished the Star Chamber and the Stationers' Company, the prohibition against seditious libel remained "alive and well in English common law," as did the "practice of issuing 'general warrants' to search and seize paper."[59] At this time three writers—John Wilkes, Father Candor and Junius—would have an especially important role in developing political thought on freedom of the press that would come to influence the Founders that the freedom to use information tools was an important structural protection within the Constitution.[60] Among these three, the most important was arguably that of English political activist John Wilkes.[61]

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[53] MILTON, THE SECOND DEFENSE OF THE PEOPLE OF ENGLAND (1654) (discussing *Areopagitica*).

[54] *Id.*

[55] *See* BALACHANDRA RAJAN ET AL., MILTON AND THE CLIMATES OF READING: ESSAYS 137 (2006).

[56] CORNWELL, *supra* note 52, at 24 (quoting Robinson).

[57] *Id*. (quoting Walwyn). Nearly a century later, Blackstone similarly adapted this understanding as the liberty of "every freeman [having] undoubted right to lay what sentiments he pleases before the public; to forbid this, is to destroy the freedom of the press . . . ." 2 WILLIAM BLACKSTONE, COMMENTARIES *151, *152.

[58] CORNWELL, *supra* note 52, at 24 (quoting Walwyn).

[59] Price, *supra* note 40, at 252.

[60] *See* Blasi, *supra* note 4.

[61] *See* LEVY, *supra* note 28, at 145-47.

While John Wilkes was more of a radical than a political theorist, his writings on his personal experience with government censorship and retribution are foundational for understanding the distinct privileges provided under freedom of the press.[62] Wilkes' difficulties with the Crown started in 1762 when he founded a weekly publication called *The North Briton*. In the forty-fifth issue of the journal, Wilkes wrote stinging attacks on George III.[63] The comments prompted the King's ministers to issue general warrants for the arrest and search of some 200 persons involved in the publication.[64] Ultimately, forty-nine people were arrested, including Wilkes himself.[65] In addition to the arrests, the government also ransacked Wilkes' home; and "[w]hile the search was nominally justified by charges of sedition, it in fact swept much more broadly."[66] Lord Halifax ordered that, "all must be taken, manuscripts and all."[67] According to records, messengers "fetched a sack and filled it" with Wilkes' tools and private papers.[68] His arrest and seizure of belongings was heavily criticized by the public and newspapers.[69]

Wilkes immediately challenged the warrant, turning the investigation into a salvo for the freedom of the press. In front of a crowd at the Court of Common Pleas, he stated that the case would "teach ministers of arbitrary principles, that the liberty of an English subject is not to be sported away with impunity, in this cruel and despotic manner."[70] The Court appeared to agree, and ruled the general warrant invalid. But this result was insufficient. Immediately after the criminal charges were dropped, Wilkes brought a civil suit for trespass, which he argued would "determine

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[62] *See id.*

[63] *See* John Wilkes, The North Briton, No. 45, Apr. 23, 1763 (London: W. Bingley, 1769), *reprinted in* THOMAS CURSON HANSARD, THE PARLIAMENTARY HISTORY OF ENGLAND, FROM THE EARLIEST PERIOD TO THE YEAR 1803, at 1335 (1813) ("A despotic minister will always endeavour to dazzle the prince with high flown ideas of the prerogative and honour of the crown, which the minister will make a parade of firmly maintaining. I wish as much any man in the kingdom to see the honour of the crown maintained in a manner truly becoming royalty. I lament to see it sunk even to prostitution.").

[64] *See id*.

[65] *See id*.

[66] Price, *supra* note 40.

[67] *Id*.

[68] *Id.*

[69] Roger P. Mellen, *John Wilkes and the Constitutional Right to a Free Press in the United States*, 41 JOURNALISM HIST. 2, 9 (2015) (stating the *Boston Post Boy* of June 1763 admonished "the Hand of Authority being lifted up in order to fall heavily on such Political Writers as may displease").

[70] Jack Lynch, *Wilkes, Liberty, No. 45*, Colonial Williamsburg, Summer 2003, http://www.history.org/foundation/journal/summer03/wilkes.cfm.

at once whether English liberty be a reality or a shadow."[71] In *Wilkes v. Wood*, Wilkes condemned the Crown's use of general warrants as enabling the "promulgation of our most private concerns, affairs of the most secret personal nature," signifying "an outrage to the constitution itself" and likening the government's behavior to the Spanish Inquisition.[72] Ultimately, Wilkes prevailed. The jury took thirty minutes to decide in favor of Wilkes and awarded him £1000.[73]

Scholar Arthur Cash calls the case "a momentous shift in the locus of power in government" from the privileged to the masses.[74] Energized by Wilkes' victory, other persons arrested by the warrant sued and won against the government in an unprecedented action.[75] The case shifted power not merely in terms of who got to publish what information, but also uniquely designated privacy as a main concern for cases involving publishers.[76] In a subsequent case, *Entick v. Carrington*, involving charges brought against the "very seditious" weekly paper known as the *Monitor*, privacy of a political dissenter's home and papers became the crux of the case. Investigators had "read over, pryed [sic] into, and examined all [of John Entick's] private papers, books, etc.[,]" a process the Court "compared to racking his body to come at his secret thoughts."[77] Lord Camden, deciding the case, found that Entick's papers were "his dearest property. . . [and w]here private papers are removed and carried away, the secret nature of those goods will be an aggravation of the trespass, and demand more considerable damages in that respect."[78]

The cases of Wilkes and Entick generated copious political writing in the American colonies on liberty of the press. In particular, it inspired two anonymous writers, The Father of Candor and Junius, who advocated for freedom of the press as a challenge to government intrusion in the private home. In 1764, the Father of Candor, an eminent public figure and legal thinker, wrote that no gentleman "would rest easy in his bed, if he thought, that . . . he was liable not only to be taken up himself, but every secret of his family made subject to the inspection of a whole

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[71] *Id*.

[72] Price, *supra* note 40.

[73] *See* Wilkes v. Wood, (1763) 98 Eng. Rep. 489 (C.P.) 490; Lofft 1, 5.

[74] *Id*.

[75] *See* Money v. Leach, (1765) 97 Eng. Rep. 1075 (K.B.) 1077; Huckle v. Money, (1763) 95 Eng. Rep. 768 (K.B.).

[76] *See* Wilkes v. Wood, (1763) 98 Eng. Rep. 489 (C.P.) 490; Lofft 1, 5.

[77] Price, *supra* note 40, at 254; *id.* (stating the intrusion was "directly aimed at [a] political dissenter[] and political papers").

[78] Price, *supra* note 40, at 254.

Secretary of State's office."[79] He continued, "Everybody has some private papers, that he would not on any account have revealed;" giving government such authority would be "inconsistent with every idea of liberty."[80] Similarly, Junius, a pseudonym for an author of a series of anonymous letters published in the *Public Advertiser* from 1769-1772, wrote, "The liberty of the press is the palladium of all the civil, political, and religious rights of an Englishman," acknowledging freedom of the press as a gateway to all other rights.[81]

Despite these writings, similar events occurred in the colonies that would also influence the Founders' ideas on freedom of the press. For instance, in 1735, the Crown prosecuted Peter Zenger, a New York newspaper printer, for libel after Zenger published a newspaper criticizing New York Governor William Cosby.[82] The case was a focal point for the Founders and the general public. Andrew Hamilton, serving as Zenger's attorney, strongly admonished the Crown for its actions, and gave a rousing closing argument leading to Zenger's victory and cheers from the courtroom spectators.[83] In fact, despite "overwhelming evidence against" Zenger, it took the American jury just ten minutes to acquit him, after which the decision was widely praised in the press."[84]

By the late eighteenth century, the importance of freedom of press and its structural protection against the government had become deeply ingrained within the minds of the Founders. "Opposition thought . . . was devoured by the colonists"[85] and nowhere more central was the idea of rebellion ingrained than in the Press Clause. The drafters of the First Amendment were "men to whom Wilkes and Junius were household words."[86] Most commonly their discussions were focused on the free press's "power and its essential characteristic of aggressiveness: its endlessly propulsive tendency to expand itself beyond legitimate boundaries."[87]

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[79] LAURA K. DONAHUE, THE FUTURE OF FOREIGN INTELLIGENCE: PRIVACY AND SURVEILLANCE IN A DIGITAL AGE 99 (2016) (quoting John Almon).

[80] *Id*.

[81] TIM O'MALLEY & CLIVE SOLEY, REGULATING THE PRESS 21 (2000).

[82] *See* Arthur E. Sutherland, Book Review, 77 HARV. L. REV. 787, 787-88 (1964) (reviewing JAMES ALEXANDER, A BRIEF NARRATIVE OF THE CASE AND TRIAL OF JOHN PETER ZENGER (1963)).

[83] *See id.*

[84] *See* Price, *supra* note 40, at 255.

[85] WILLIAM H. GOETZMANN, BEYOND THE REVOLUTION: A HISTORY OF AMERICAN THOUGHT FROM PAINE TO PRAGMATISM 26 (2009).

[86] ZACHARIAH CHAFFEE, JR., FREE SPEECH IN THE UNITED STATES 21 (1969); *see also* Blasi, *supra* note 4, at 533.

[87] BERNARD BAILYN, THE IDEOLOGICAL ORIGINS OF THE AMERICAN REVOLUTION 56 (1967).

In addition to the writings of Milton and Father Candor, many of the Founders also closely identified with the practical experiences of Algernon Sydney, John Wilkes, John Entick, and Peter Zenger. Thomas Paine, Benjamin Franklin, Thomas Jefferson, and George Washington were all printers or wrote opposition publications during the Revolution.[88] The Founders recognized that they would have faced similar charges of treason for using the press and other tools, such as ciphers, had the Revolution ended differently. It is of little surprise then, that in drafting the Bill of Rights, the Founders described that the freedom of the press as a central concern.[89] Its importance was reflected in their letters and writings, where freedom of the press was repeatedly mentioned as a key, if not the most important protection.[90]

The original state constitutions also illustrate the primacy of the structural protection.[91] Each of the thirteen original states protected freedom of the press in their declarations or constitutions (while only one included protection for free speech).[92] Out of the eleven state constitutions that adopted a protection for freedom of the press, Pennsylvania's is perhaps most emblematic, containing not one, but two press provisions.[93] Its second Press Clause, located in the main section of the constitution, titled "the Plan or Frame of Government for Commonwealth or State of Pennsylvania" described press freedom as structurally essential to a healthy government. It read, "[t]he printing presses shall be free to every person who undertakes to examine the proceedings of the legislature, or any part of government."[94] As Professor Sonja West has noted, "[t]he placement of this right in the part of the document establishing the state's organizational framework further emphasizes that press freedom filled a specific structural function."[95]

In addition, First Amendment draftsman James Madison elaborated an even stronger structural interpretation of the Press Clause in the Virginia Report of 1799-

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[88] MARK A. LAUSE, SOME DEGREE OF POWER 25-26 (1991).

[89] *See* SMITH, *supra* note 23, at 162 ("Early American journalists and libertarian theorists distrusted state power and continually argued that the press should serve as a check on its use.").

[90] West, *The 'Press,' Then & Now*, *supra* note 12, at 62 (citing SMITH, *supra* note 23, at 166).

[91] *Ex parte* Milligan, 71 U.S. 2, 37 (1866) (stating the original constitutions were "framed with the most jealous care").

[92] Seth F. Kreimer, *The Pennsylvania Constitution's Protection of Free Expression*, 5 U. PA. J. CONST. L. 1, 15 (2004).

[93] West, *supra* note 12, at 67 n.95 (citing David A. Anderson, *The Origins of the Press Clause*, 30 UCLA L. REV. 455, 489-90 (1983) (stating that Pennsylvania's second Press Clause, is "unmistakable" evidence of "the right to examine government")).

[94] Pennsylvania Declaration of Rights, 1776, *reprinted in* West, *The 'Press,' Then & Now*, *supra* note 12, at 66.

[95] *Id*. at 66-67.

1800.[96] There, Madison wrote freedom of the press was "[t]he essential difference between the British government, and the American Constitutions," and "that the unconstitutional power exercised over the press . . . ought more than any other to produce universal alarm."[97] Madison's words harken back to the cases of Wilkes and Entick, and the principle that freedom of the press did not simply protect criticism of government, but also thwarted government intrusions into physical spaces. He wrote, "[t]he freedom of the press under the common law is . . . an exemption from all previous restraint on printed publications, by persons authorized to inspect and prohibit them."[98] In essence, inherent to the freedom of the press was broad protection of the press, including certain zones and tools used for the dissemination of information—zones and tools which, if employed, could rival the government's control of information.[99]

Despite its long history, the Supreme Court did not expound on the meaning of the Clause until the early twentieth century. However, several instances in the early nineteenth century also suggest a tacit recognition by the federal government of the structural right. For example, during the Civil War, Northern publishers referred to as the "Copperhead Press" hotly opposed President Abraham Lincoln."[100] The group, named after a venomous snake, made repeated vitriolic verbal attacks on the President in the media, believing Lincoln had acted beyond the bounds of his constitutional powers. In December 1862, one Copperhead Congressman "boldly introduced a congressional resolution calling for Lincoln's imprisonment."[101] The Congressman "had a large public following and strong associations with several newspaper editors"[102] and "energetically pushed the envelope in speech after speech, encouraging soldiers to desert and inciting weary crowds, all the while knowing how he enraged official Washington."[103] Still, Lincoln persisted to tolerate the press. Such

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[96] JAMES MADISON, REPORT ON THE VIRGINIA RESOLUTIONS (1800), http://presspubs.uchicago.edu/founders/documents/amendI_speechs24.html. Madison prepared this document for the Virginia House of Delegates as a criticism of the federal Alien and Sedition Acts.

[97] *Id*.

[98] *Id*.

[99] *See id.*; *see also* BERNARD SCHWARTZ ET AL., THE BILL OF RIGHTS: A DOCUMENTARY HISTORY 235, 287 (1971) (discussing Madison's idea, "That the freedom of the press is one of the great bulwarks of liberty, and therefore ought never to be restrained").

[100] Brandon Johnson, *Oppression in the Defense of Liberty: Abraham Lincoln and Freedom of the Press During the Civil War*, 18 HISTORIA 1, 6 (2009).

[101] *Id.*

[102] *Id.* at 7.

[103] Wyatt Kingseed, *The Fire in the Rear: Clement Vallandigham and the Copperheads*, AM. HIST. MAGAZINE, (Apr. 11, 2016), http://www.historynet.com/the-fire-in-the-rear-clement-vallandigham-and-the-copperheads.htm.

patience for publication and tools used against the government without state interference was a clear divergence from the Crown's precedent.

This tolerance for the private press continued as technology changed. During the mid-nineteenth century, for example, the boom of the telegraph created the ability for communication to move with unprecedented celerity over expansive distances, moving it outside the grasp of government oversight.[104] The high-speed printing press at the end of the nineteenth century, also known as the penny press, created a similarly unique ability for publishing much more quickly than ever before.[105] The telegraph and the penny press, combined with the notoriously irresponsible reporting techniques of "yellow journalists," often caused difficulty for the government.[106] "Even so, the high-speed presses were seen as solidly within the First Amendment protection. They did the same thing that an old-fashioned Franklin press did (put ink onto sheets of newspaper), except that they did so much more rapidly."[107] Yet, "nobody in 1888 claimed the high-speed presses were outside the First Amendment."[108]

Thus, when the Supreme Court finally interpreted the Press Clause in the early twentieth century,[109] it is not altogether surprising that the Court undergirded the Clause's structural importance. It did so most apparently in the 1931 Supreme Court case, *Near v. Minnesota*,[110] later called by First Amendment scholar Anthony Lewis the "Court's first great press case".[111] Plaintiff Jay M. Near was the owner of a local

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[104] AMERICAN CIVIL LIBERTIES UNION, ACLU SUBMISSION TO THE SPECIAL RAPPORTEUR ON THE PROMOTION AND PROTECTION OF THE RIGHT TO FREEDOM OF EXPRESSION AND OPINION 15 n.68 (2015), https://www.aclu.org/other/aclu-submission-special-rapporteur-encryption-and-anonymity [hereinafter *ACLU Submission*] (citing both SIMON SINGH, THE CODE BOOK 61, 79 (1999) ("In the century following the invention of the telegraph in 1844, forty-four new commercial ciphers were patented by Americans for both commercial and private uses.") and STEVEN LEVY, CRYPTO 16 (2001) ("Just as the invention of the telegraph upped the cryptographic ante by moving messages thousands of miles in the open, presenting a ripe opportunity for eavesdroppers of every stripe, the computer age would be moving billions of messages previously committed to paper into the realm of bits.")).

[105] *See* LOREN COLEMAN, THE COPYCAT EFFECT: HOW THE MEDIA AND POPULAR CULTURE TRIGGER THE MAYHEM IN TOMORROW'S HEADLINES 135-37 (2004).

[106] *Id*. For example, the "penny press" is often blamed for the harrowing violence of the late nineteenth century, such as that period's surge in copycat killings.

[107] David B. Kopel, *First Amendment Guide*, 81 TENN. L. REV. 417, 455 (2014).

[108] *Id*.

[109] *See* Schenck v. United States, 249 U.S. 47, 52 (1919) (being the Court's first case to discuss freedom of the press (and speech) and creating the "clear and present danger" test).

[110] 283 U.S. 697 (1931).

[111] ANTHONY LEWIS, MAKE NO LAW: THE SULLIVAN CASE AND THE FIRST AMENDMENT 90 (1991).

Minneapolis newspaper that had been enjoined under a state statute for publication of "malicious, scandalous and defamatory" comments.[112] In the landmark decision,[113] relying on the Press Clause, the Court struck down the Minnesota law, removed the injunction, and cemented prior restraint as one of the most punitive state measures only to be employed in the most extreme circumstances.[114] Although the Speech Clause played a role in the Court's decision, it is often believed that absent the Press Clause, the Supreme Court would have upheld the prior restraint.[115]

Over the next century, as academics battled over the meaning of the word "press," the power of the Clause only grew stronger, reaching its pinnacle in American society in the 1960s, in what legal scholar David Anderson refers to as the "heyday of the Press Clause."[116] *Near*, standing on the shoulders of hundreds of years of "free press" case development (from Wilkes to Zenger) had planted the seeds for watershed press cases, most important *New York Times Co. v. United States*.[117] Before diving into this jurisprudence, however, it is imperative to understand the two interpretations of the Press Clause, and how both meanings are incomplete without the other. To understand the full protection intended by the Press Clause, we must marry elements of both.[118]

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[112] *Near*, 283 U.S. at 697. In that case, a county prosecutor sought to enjoin a local newspaper in Minneapolis that accused local police for cooperating with a ring of "Jewish gangster[s]" involved in a string of crimes. *Id.* at 704.

[113] *Near*, 283 U.S. at 704.

[114] *Id.* at 713.

[115] In large part, the heavy lifting of the case was done by the Press Clause to strike down the government's seemingly reasonable law where the newspaper had been notoriously inflammatory and contained racist remarks critical of government. The law indeed only required that the reporters instill ethical journalistic codes in reporting truthful material. But ultimately the Court held the Press Clause protected the use of private presses and decisions to control information, especially where claims of government legitimacy were at issue. Anderson, *supra* note 24, at 458. While the Court has never given the Press Clause independent significance, neither has it foreclosed the possibility of its additional and separate importance. Chief Justice Burger is the only member of the Court who has expressed hostility toward the prospect of specific constitutional protection for the press, and even he concedes that the question is still open.

[116] Anderson, *supra* note 24, at 448.

[117] 403 U.S. 713 (1971) (per curiam).

[118] Charles & O'Neill, *supra* note 19, at 1703-05 (discussing the importance of history and the various theories that helped to create the Press Clause as it developed)

II
THE PRESS CLAUSE: THE TRADITIONAL DEBATE

Over the past century, two theories of the Press Clause have developed. The two theories diverge in how they define the word "press".[119] A resurgence of this debate has percolated in recent years.[120] Revisiting foundational texts reveals that the Press Clause was likely meant to protect against government intrusion into private zones as a check on government control of information.

A. Freedom of the Press: An Institutional Protection

In the 1970s, a series of legal scholars, including David Anderson,[121] Floyd Abrams,[122] Edwin C. Baker,[123] and Vincent Blasi[124] (and more recently Sonja West[125]) argued that the Press Clause was established to protect the institutional press, often referred to as the "Fourth Estate."[126] According to this interpretation, members of the news media are afforded special protections under the Press Clause because of their contribution to democracy, acting as watchdogs over government.[127] Just as the judiciary, executive, and legislative branches of government act as a check on one another, the press—the Fourth Estate—serves as a check on the whole of government.[128] This position holds that without the checking value of the press,

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[119] *See* Jack M. Balkin, *Old-School/New-School Speech Regulation*, 127 HARV. L. REV. 2296, 2302 (2014) ("The word 'press' has the dual signification of an institution for creating and distributing content and a technology for creating and distributing content. At the Founding it referred to the freedom to use the key mass communication technology of the day—the printing press.").

[120] The resurgence followed discussion over the Press Clause in dicta of *Citizens United*, 558 U.S. 310 (2010).

[121] Anderson, *supra* note 24.

[122] Floyd Abrams, *The Press Is Different: Reflections on Justice Stewart and the Autonomous Press*, 7 HOFSTRA L. REV. 563, 580 (1979).

[123] C. Edwin Baker, *The Independent Significance of the Press Clause Under Existing Law*, 35 HOFSTRA L. REV. 955, 956 (2007).

[124] Blasi, *supra* note 4.

[125] West, *The 'Press,' Then & Now*, *supra* note 12.

[126] Stewart, *supra* note 4, at 634 ("The primary purpose of the constitutional guarantee of a free press was a similar one: to create a fourth institution outside the Government as an additional check on the three official branches.").

[127] TIMOTHY E. COOK, FREEING THE PRESSES: THE FIRST AMENDMENT IN ACTION 7 (2005) (quoting Anderson, *supra* note 93, at 465 (noting that the first section "values the press as a public forum open to all [while] the second highlights the watchdog function")).

[128] *See generally* Blasi, *supra* note 3 (examining the idea that free expression has a "checking value" against the abuse of government power).

corruption within government would likely ensue. Therefore, the Press Clause affords protection to members of news media to safeguard democracy.

This interpretation was not cabined to academia. Members of the Supreme Court, including Justices Stewart,[129] Powell,[130] and Douglas,[131] vociferously supported this position during a twenty-year period. Starting in 1964, with *New York Times Co. v. Sullivan*,[132] the Court established a preference for the press-as-industry approach by establishing the actual malice standard for libel actions.[133] The case created a qualified protection for the news media arising from their structural role as a check on government.[134] Quoting Madison, the Court asserted that in every state in the Union, "the press has exerted a freedom in canvassing the merits and measures of public men, of every description"[135] and that government ought not attempt to "controul [sic] the freedom of the press."[136] Because of quotes like these, *Sullivan* has become known as one of the most important First Amendment cases to have ever been decided.[137] Although the case did not ultimately rely on the Press Clause, "it create[d] a bedrock of press-supportive dicta on the way to a press-prevailing . . . conclusion."[138] In other words, *Sullivan* acted a building block for other cases that

[129] Stewart, *supra* note 4, at 634.

[130] *See* Saxbe v. Wash. Post Co., 417 U.S. 843, 862-63 (1974) (Powell, J., dissenting).

[131] *See* Branzburg v. Hayes, 408 U.S. 665, 721 (1972) (Douglas, J., dissenting).

[132] 376 U.S. 254 (1964).

[133] If the plaintiff in a defamation suit is a public figure, then to find the defendant guilty under the actual malice standard, the plaintiff must prove the defendant made the publication either (i) knowing it was false, or (ii) with reckless disregard. At issue in *Sullivan* was an advertisement that contained certain factual inaccuracies about a Southern public official who had clashed with civil rights demonstrators. *See id*.

[134] Stewart, *supra* note 4, at 635.

[135] *Sullivan*, 376 U.S. at 275.

[136] *Id*. at 277 (citing an 1804 Letter to Abigail Adams as quoted in Dennis v. United States, 341 U.S. 494, 522 n.4 (1951) (Frankfurter, J., concurring)).

[137] Harry Kalven, Jr., *The New York Times Case: A Note on "The Central Meaning of the First Amendment"*, 1964 SUP. CT. REV. 191, 193-94 (1964).

[138] RonNell Andersen Jones, *The Dangers of Press Clause Dicta*, 48 GA. L. REV. 705, 851 (2014).

established protections for journalists, such as the "reporter's privilege,"[139] disclosure of intercepted information,[140] and "access."[141]

Perhaps more than *Sullivan*, however, *New York Times Co. v. United States* (the "*Pentagon Papers*" case) is often identified as the most influential press-as-industry case.[142] In *Pentagon Papers*, the Court rejected the government's injunction against the *New York Times* and the *Washington Post* for trying to publish the then-classified Pentagon Papers, despite the government's arguments that publication of confidential material would disrupt national security.[143] The watershed case was revolutionary for restricting government power. It illuminated that the Press Clause could thwart government from interfering in private decisions about information, even in circumstances involving national security, in order to benefit of democracy. Many credit the development of this reasoning to Max Frankel, then-chief of the *New York Times*' Washington bureau, who submitted a now famous affidavit in the district court. Frankel wrote:

> Without the use of "secrets" that I shall attempt to explain in this affidavit, there could be no adequate diplomatic, military and political reporting of the kind our people take for granted, either abroad or in Washington and there could be no mature system of communication between the Government and the people . . . .
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> In the field of foreign affairs, only rarely does our Government give full public information to the press for the direct purpose of simply informing the people. For the most part, the press obtains significant information bearing on foreign policy only because it has managed to make itself a party to confidential materials of value in transmitting these materials from government to other branches and offices of government as well as to the public at large. This is why the press has

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[139] *See, e.g.*, Branzburg v. Hayes, 408 U.S. 665, 698 (1972) (Douglas, J., dissenting).. Although the Court denied the claims in *Branzburg*, many states have provided a reporter's privilege through legislation. *Id.*

[140] Bartnicki v. Vopper, 53 U.S. 514, 527-28 (2001) (citing N.Y. Times Co. v. Sullivan, 376 U.S. 254 (1964)).

[141] David Lange, *The Role of the Access Doctrine in the Regulation of the Mass Media: A Critical Review and Assessment*, 52 N.C. L. REV. 1, 8-34 (1973); *see, e.g.*, Miami Herald Pub. Co. v. Tornillo, 418 U.S. 241 (1974); CBS v. Democratic Nat'l Comm., 412 U.S. 94 (1973); *see generally* Jerome A. Barron, *Access to the Press—A New First Amendment Right*, 80 HARV. L. REV. 1641 (1967).

[142] 403 U.S. 713 (1971).

[143] *Id*.

> been wisely and correctly called The Fourth Branch of Government . . .
>
> But for the vast majority of "secrets," there has developed between the Government and the press (and Congress) a rather simple rule of thumb: the Government hides what it can, pleading necessity as long as it can, and the press pries out what it can, pleading a need and right to know. Each side in this "game" regularly "wins" and "loses" a round or two. Each fights with the weapons at its command. When the Government loses a secret or two, it simply adjusts to a new reality. When the press loses a quest or two, it simply reports (or misreports) as best it can. Or so it has been, until this moment.[144]

Never before had the need for a structural division between the press and government as well as the struggle over information been made so concrete. Soon after, the idea that journalists should be protected from government became commonplace. Just three years after *Pentagon Papers*, Justice Stewart presented a popular convocation speech at Yale Law School that buttressed this perspective.[145] Stewart wrote that press rights in the First Amendment were "no constitutional accident, but an acknowledgment of the critical role played by the press in American society,"[146] and that "so far as the Constitution goes, the autonomous press may publish what it knows, and may seek to learn what it can."[147]

While many legal scholars and litigators have held this point of view, "[t]he Court has not yet squarely resolved whether the Press Clause confers upon the 'institutional press' any freedom from government restraint not enjoyed by all others."[148] In fact, the Supreme Court has never recognized any constitutional rights belonging exclusively to the media.[149] Justice Brennan, for instance, wrote that "in

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[144] Affidavit of Max Frankel paras. 3, 17, Editor, N.Y. Times, N.Y. Times Co. v. United States, 403 U.S. 713 (1971), http://www.pbs.org/wgbh/pages/frontline/newswar/part1/frankel.html [hereinafter *Frankel Affidavit*].

[145] Stewart, *supra* note 4, at 634.

[146] Houchins v. KQED, Inc., 438 U.S. 1, 17 (1978) (Stewart, J., concurring); *see also* Stewart, *supra* note 4, at 634.

[147] Stewart, *supra* note 4, at 634.

[148] First Nat'l Bank of Boston v. Bellotti, 435 U.S. 765, 798 (1978) (Burger, C.J., concurring)

[149] Richmond Newspapers, Inc. v. Va., 448 U.S. 555, 573 (1980) (plurality opinion); Baker, *supra* note 123, at 958-59 (arguing that the existing Court does not recognize special privileges for the press, and holding that in criminal trials, "media representatives enjoy the same right of access as the public"); *see* Branzburg v. Hayes, 408 U.S. 665, 704 (1972) ("Freedom of the press is a 'fundamental personal right' which 'is not confined to newspapers and periodicals.'" (*quoting* Lovell v. Griffin, 303 U.S. 444, 450, 452 (1938)); *see* Anderson, *supra* note 24, at 432 ("Nonconstitutional sources of special protection for the press are far more numerous.").

the context of defamation law, the rights of the institutional media are no greater and no less than those enjoyed by other[s]."[150] In scholarship, the right has always been described as an *individual* right, not an *institutional* right.[151]

In addition, academics have pointed out that creating a special privilege for the media would contradict the fact that no part of the Constitution protects members of the news media. For example, despite popular beliefs, journalists are not protected from government subpoenas, search warrants, or work-product requests.[152] Similarly, "if a reporter commits a minor tort such as a trespass, minor deception or breach of loyalty, no judicial consideration is given to the fact that she was engaged in news reporting."[153] Additionally, the "definitional problem,"[154] in other words, the problem of defining *who would* constitute the press, particularly in today's world where citizen journalists, bloggers, and journalism students have all taken on the title of reporter, also complicates the question of how the Press Clause could or should provide specific protections for one particular profession of individuals.[155]

Despite these obstacles, this understanding of the Press Clause acknowledges a fundamental characteristic of the original understanding of the Press Clause: that the press (whatever it may be) plays a *structural* role in our democracy.[156] As David Anderson argues, the Press Clause provides "an additional check on official power" because it provides a barrier between the "press" and "the three official branches of government."[157] In essence, the press can necessarily enable the free flow of information and act as a check on a tyrannical government because it has no part of it.[158] As Vincent Blasi explains, Madison's view of the Press Clause was that it

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[150] Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc., 472 U.S. 749, 784 (1985).

[151] *See generally* Volokh, *supra* note 5; *see also* BLACKSTONE, *supra* note 57.

[152] Sonja R. West, *Awakening the Press Clause*, 58 UCLA L. REV. 1025, 1029 (2011).

[153] *Id.*

[154] *Id*.

[155] As the Supreme Court has noted, "[thanks to] the advent of the Internet and the decline of print and broadcast media . . . the line between the media and others who wish to comment on political and social issues becomes far more blurred." Citizens United v. Fed. Election Comm'n, 558 U.S. 310, 352 (2010); *see also* SCOTT GANT, WE'RE ALL JOURNALISTS NOW 6 (2007).

[156] Paul Horwitz, *Churches as First Amendment Institutions: Of Sovereignty and Spheres*, 44 HARV. C.R.–C.L. L. REV. 79, 87 (2009).

[157] Anderson, *supra* note 24, at 460 (stating that while the Founders did not seem to argue that the checking power of the Press Clause was written to "protect editorial autonomy" or that the "government may not interfere with journalistic decisions," they did believe that the Press Clause provided an important structural role to check government intrusion into personal realms where tools like the press, computers, or code could be used to share certain information).

[158] William W. Van Alstyne, *First Amendment and the Free Press: A Comment on Some New Trends and Some Old Theories*, 9 HOFSTRA L. REV. 1, 19 (1980).

served as a structural barrier and protected individuals from state action.[159] Through the space provided by this barrier, people could judge and challenge the actions of their rulers.[160]

Alexander Bickel echoed this position. Bickel "believed the press was a constitutionally recognized countervailing power to the official branches of government."[161] Although Bickel did not restrict the Press Clause to "institutionalized print and electronic media, he believed that the first amendment recognized the press—as an entity outside of and in competition with the government."[162] Bickel called this necessary but contentious relationship between government and press the "disorderly situation."[163] In this relationship, both entities had the right and obligation to keep information and materials secret from one another.[164] As other scholars have commented, Bickel found a parallel between James Madison's theories regarding "the separation of powers" and Madison's view of freedom of the press.[165] Like the separation of powers principle, the Press Clause created a structural protection that shielded against government intrusion into the private realm, particularly when dealing with distribution of information.[166]

Although the Court has never elaborated on this structural point, certain Justices on the Court have remarked on it. As if mimicking the words of Max Frankel, Justice Stewart's 1974 Yale Law School convocation speech buttressed this perspective.[167] Stewart wrote that press rights in the First Amendment were "no constitutional accident, but an acknowledgment of the critical role played by the

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[159] Blasi, *supra* note 4, at 538.

[160] *Id*.

[161] John Nowak, *Using the Press Clause to Limit Government Speech* 30, ARIZ. L. REV. 1, 13 (1988) (citing ALEXANDER M. BICKEL, THE MORALITY OF CONSENT (1975)).

[162] *Id.*

[163] *See* David McCraw & Stephen Gikow, *The End to an Unspoken Bargain? National Security and Leaks in a Post-Pentagon Papers World*, 48 HARV. C.R.–C.L. L. REV 473 (2013) (citing ALEXANDER M. BICKEL, THE MORALITY OF CONSENT (1975)) ("It is a disorderly situation surely. But if we ordered it we would have to sacrifice one of two contending values—privacy or public discourse—which are ultimately irreconcilable.").

[164] *Id.*

[165] *See* Nowak, *supra* note 162, at 12.

[166] Sonja West, *The Stealth Press Clause*, 48 GA L. REV. 729, 753 (2014) (In *Mills v. Alabama*, the Court specifically enumerated the press as providing this protection because it "serves[] as powerful antidote to any abuses of power by governmental officials and as a constitutionally chosen means for keeping officials elected by the people responsible to all the people whom they were selected to serve.") (citing Mills v. Alabama, 384 U.S. 214, 219 (1966)); *see also* Blasi, *supra* note 4, at 538 ("the generation of Americans which enacted the First Amendment built its whole philosophy of freedom of the press around the checking value").

[167] Stewart, *supra* note 4, at 634.

press in American society,"[168] and that "so far as the Constitution goes, the autonomous press may publish what it knows, and may seek to learn what it can."[169] Similarly, Justice Douglas characterized the freedom of the press as part of a constitutional scheme (also consisting of the separation of powers and an independent judiciary) designed "to take Government off the backs of people."[170] Justice Douglas explained that the right to have the government "off your back" meant the protection of a zone where one could make certain private choices without state interference—such as deciding what information to publish and what to keep private from government intrusion. As explained more below, while the press-as-technology perspective does not highlight the structural importance of the press, it stresses the importance of the individual. Combining, these approaches therefore presents an opportunity to uphold the Founders' true intention.[171]

B. Freedom of the Press: An Individual Protection of Tools

While the press-as-industry approach was the popular stance among legal scholars for most of the twentieth century, following the decision of *Citizens United*[172] the press-as-technology approach gained momentum. In fact, some claim the press-as-technology approach has now been adopted as the "prevailing" approach.[173] In the 2010 decision, Justice Scalia engaged in debate with Justice Stevens over the two interpretations.[174] Arguing against the press-as-technology approach, Justice Stevens asserted that the Court was wrongly focused on the Speech Clause and should turn to a press-as-institution analysis under the Press Clause.[175]

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[168] Houchins v. KQED, Inc., 438 U.S. 1, 17 (1978) (Stewart, J., concurring); *see also* Stewart, *supra* note 4, at 634.

[169] Stewart, *supra* note 4, at 634.

[170] Columbia Broadcasting Sys., Inc. v. Democratic Nat'1 Comm., 412 U.S. 94, 162 (1973) (Douglas, J., concurring); *see also* Dorothy Glancy, *Getting Government off the Backs of People: The Right of Privacy and Freedom of Expression in the Opinions of Justice William O. Douglas*, 21 SANTA CLARA L. REV. 1047, 1049 (1981) (citing Pub. Util. Comm'n. v. Pollak, 343 U.S. 451, 467 (1952) (Douglas, J., dissenting)).

[171] *See* Nowak, *supra* note 162, at 13 (discussing the press as a "structural protection for individuals' physical ability to control the flow of information through technology" or as the "independent press, free of direct government censorship").

[172] 558 U.S. 310 (2010).

[173] West, *The 'Press,' Then & Now*, *supra* note 12, at 59 (stating Volokh's interpretation appears to reflect the now-prevailing view of press freedom).

[174] In the opinion, Justices Scalia and Stevens argued over the point of whether newspapers had a special protection under the Clause. Citizens United v. Fed. Election Comm'n, 558 U.S. 310, 390 (2010)

[175] *Id.* at 431 n.57 (Stevens, J., concurring in part and dissenting in part) (describing a Press Clause which shows "why one type of corporation, those that are part of the press, might be able to claim special First Amendment status").

Justice Scalia rebuked this comment, arguing that Justice Steven's perspective "boggles the mind," and that the Press Clause referred simply to "everyone's right" to publish, not "the institutional press's right to publish."[176] While *Citizens United* spurred much more heated debate about the protection for corporations under the Speech Clause,[177] the opinion also inspired an article by Professor Eugene Volokh that would clarify the press-as-technology approach as the prevailing view under the Press Clause.[178]

In 2012, Professor Volokh picked up on the argument where Justice Scalia left off,[179] arguing, "the purpose of the Constitution was not to erect the press into a privileged institution but to protect *all persons* in their right to print what they will as to utter it."[180] Volokh asserts that freedom of press is a general protection for individuals to use technology like the printing press,[181] and not a limited protection for the institutional press.[182] To demonstrate this point, he examines several nineteenth-century political writers, as well as twelve American and three British cases from between 1784 and 1840, in which freedom of press was used to protect individuals who were not professional journalists.[183] He references Francisco Ludlow Holt and his 1812 work, *The Law of Libel*,[184] which broadly defined "[t]he liberty of the press as the personal liberty of the writer to express his thoughts in the more [im]proved way invented by human ingenuity in the form of the press."[185]

Professor Volokh offers further evidence to argue that to the Founders, the "press" was nothing more than a tool. He cites James Madison, who spoke of the

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[176] *Id*. at 390 n.6 (Scalia, J., concurring).

[177] Indeed, *Citizens United* was a Speech Clause case. *See* RANDALL P. BEZANSON, TOO MUCH FREE SPEECH? 40 (2012) (noting that the Press Clause analysis was neither briefed nor argued in *Citizens United*).

[178] *See generally* Volokh, *supra* note 5.

[179] *Id.* at 463.

[180] Pennekamp v. Florida, 328 U.S. 331, 364 (1946) (Frankfurter, J., concurring).

[181] Volokh points to early cases, treatises, and state constitutions to suggest the "liberty of the press" is a mere addendum to freedom of speech, and simply provides that "every citizen" may freely speak, write, and publish his sentiments. Volokh, *supra* note 5, at 466-68.

[182] "Professor Volokh argues that 'it was not until the 1970s that some courts extended special protections under the Press Clause to the institutional press and these decisions remained a minority.'" McConnell, *supra* note 5, at 431 (citing Volokh, *supra* note 5, at 522-23).

[183] *See* Volokh, *supra* note 5.

[184] *Id*. at 471.

[185] *Id.*

"*use* of the press" in his 1800 Report on the Virginia Resolution.[186] Similarly, he quotes the Massachusetts response to the Virginia Resolutions and St. George Tucker's influential work that also described the "use of the press."[187] Indeed, other writers of that time, such as William Rawle likewise characterized "[t]he press" as a "vehicle" of speech and stated "[t]he art of printing illuminates the world, by a rapid dissemination of what would otherwise be slowly communicated and partially understood."[188] Citing these sources in a straightforward textual reading, Volokh underscores the importance of these tools and the understanding of the Press Clause as a broad protection for all individuals who use them.

Although Volokh convincingly highlights the Press Clause as a general protection for individuals and the private use of technology, his article seems to mute the structural importance of the Clause.[189] Arguing that no distinction exists between the Speech Clause and Press Clause, he finds that the use of the printing press was just another form of speech.[190] But even Volokh concedes that the freedom of the press posed separate "dangers that ordinary 'speech' did not."[191] He admits that historically the freedom of the press was considered to be "especially dangerous" and in this way distinct from speech.[192] Volokh also cites to Madison,[193] who

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[186] *Id*. at 473 n.47 (emphasis added); *see also id.* ("The inclusion of the word 'use' in . . . 'freedom in the use of the press' makes it unmistakably clear that Madison . . . w[as] referring to the machine of the printing press.").

[187] *Id.* at 473 (stating that "freedom of the press is a security for the rational use, and not the abuse of the press"). Additionally, in St. George Tucker's influential 1803 work, he discussed the freedom of the press and spoke of "[w]hoever makes use of the press as the *vehicle* of his sentiments on any subjects." St. George Tucker, *Of the Freedom of Speech and Press* (1803), http://lonang.com/library/reference/tucker-blackstone-notes-reference/tuck-2g/ (emphasis added).

[188] Volokh, *supra* note 5, at 476 (citing WILLIAM RAWLE, A VIEW OF THE CONSTITUTION OF THE UNITED STATES OF AMERICA 119 (Philadelphia, H.C. Carey & I. Lea 1825)).

[189] Volokh cites Justice Scalia's argument in *Citizens United* that the shared words "'freedom of' in the phrase the 'freedom of speech, or of the press' are most reasonably understood as playing the same role for both 'speech' and 'press.'" Volokh, *supra* note 5, at 472 n.46. Volokh also tries to marry the freedom of speech clause with freedom of the press by stating that "over the last several decades, the phrase 'freedom of speech' has often been used to mean "freedom of expression" and to encompass all means of communication . . . [including] radio, films, television, and the Internet." *Id*. at 477.

[190] *Id.* at 505-06. Volokh writes that a discussion about the independence of the Press Clause is "outside the scope of this Article" but throughout cites several cases suggesting its indivisibility from the Speech Clause. *Id*. at 506 n.214 (citing to cases in Section I.E of his own article for evidence that the Speech Clause is indivisible from Freedom of Press.).

[191] Volokh, *supra* note 5, at 476.

[192] *Id.*

[193] As stated previously, Madison clearly thought the Press Clause provided a distinct structural protection. James Madison, Report on the Virginia Resolutions to the House Delegates (1880), reprinted in 4 DEBATES IN THE SEVERAL STATE CONVENTIONS ON THE ADOPTION OF THE FEDERAL CONSTITUTION 546, 570 (Jonathan Elliot ed., Philadelphia, J.B. Lippincott Co. 2d ed. 1891).

undoubtedly understood the Press Clause to be a structural protection, further undermining this perspective. Indeed, Professor Volokh nods at this conclusion when he cites to David Anderson, the foremost scholar for the institutional press perspective.[194]

This short but meaningful acknowledgement by Volokh seems to suggest that while both the press-as-technology and the press-as-speech perspectives have often been pitted against one another, they nevertheless overlap. Although neither exactly agrees on *who* specifically is protected by the Press Clause (a narrow set of professional journalists as opposed to anyone utilizing a press tool), both approaches would likely agree that the Clause is a protection for the use of tools and private spaces that enable the public to control the flow of information. With that broader perspective, we can move forward and see how encryption falls under this definition. If the Press Clause is ultimately a simple check on government by allowing the public to control the flow of information, then encryption seems to fall squarely within that definition.

III
ENCRYPTION AND THE PRESS CLAUSE

Encryption is the mathematical "process of converting messages, information, or data into a form unreadable by anyone except the intended recipient."[195] Through this process, a plaintext message is paired with a randomly generated key, and both are scrambled until all that is left is an undecipherable message, called ciphertext.[196] Although this description makes encryption seem like a modern invention, the tool is "as old as communication itself."[197] Based on the Greek words *kryptos*, meaning

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Similarly, Francis Holt understood speech and press as distinct. FRANCIS LUDLOW HOLT, THE LAW OF LIBEL 38-39 (1812). Holt writes that "with a very few exceptions, whatever any one has a right both to think and to speak, he has *likewise* a consequential right to print and to publish." *Id* at 38 (emphasis added). Holt uses the word "likewise" to distinguish separate right to publish and control the actual printing and spreading of information through technology. *Id.*

[194] He quotes Anderson to state that "the existence of a Press Clause may have been crucial" to the Supreme Court's original First Amendment cases. Volokh, *supra* note 5, at 477 n.67 (citing Anderson, *supra* note 93, at 458).

[195] SANS Institute, *History of Encryption* (2001), http://www.sans.org/reading-room/whitepapers/vpns/history-encryption-730 (last visited Feb. 27, 2017).

[196] Micah Lee, *Encryption Works: How to Protect Your Privacy in the Age of NSA Surveillance*, FREEDOM OF THE PRESS FOUND. (July 2, 2013), https://freedom.press/encryption-works; *see also* John J Browder, *Encryption Source Code and the First Amendment*, 40 JURIMETRICS J. 431, 431 n.2 (2000).

[197] Wendy McElroy, *Thomas Jefferson Used Encryption*, INFORMATION LIBERATION (Sept. 1, 2012), http://www.informationliberation.com/?id=40786.

hidden or secret, and *graphia*, meaning writing—encryption is inviolably intertwined with all technological communication—dating back to pen and invisible ink.[198] Throughout history, encryption's purpose has been to keep information secret rather than to make it public, but it is just as much a tool for individual control over the flow of information as the printing press.[199] This section will detail the legal justifications previously used to protect encryption under the Speech Clause, and will conclude that while the Speech Clause is an appropriate home for protection, the Press Clause acts as an additional and descriptively powerful rationale for protecting encryption.

A. A Short History of Encryption and Government Control

Control over information is inherent to power.[200] To accomplish this, governments have historically held tight grips over all technology that is capable both of spreading as well as censoring messages. Inevitably, governments have long imposed controls over encryption in order to manage the flow of information.[201] Dating as far back to the Roman state, Julius Caesar safely guarded his encryption method (shifting the Roman alphabet three places) to send covert messages to his military.[202] At the time of the Renaissance, many European countries developed

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[198] S*ee generally* JOHN A. NAGY, INVISIBLE INK: SPYCRAFT OF THE AMERICAN REVOLUTION (2011).

[199] DAVID KAYE, REPORT OF THE SPECIAL RAPPORTEUR ON PROMOTION AND PROTECTION OF THE RIGHT TO FREEDOM OF EXPRESSION AND OPINION A/HRC/29/32 (May 22, 2015) ("Drawing from research on international and national norms and jurisprudence, and the input of States and civil society, the report concludes that encryption and anonymity enable individuals to exercise their rights to freedom of opinion and expression in the digital age and, as such, deserve strong protection."); *id*. at 5 ("Where States impose unlawful censorship through filtering and other technologies, the use of encryption and anonymity may empower individuals to circumvent barriers and access information and ideas without the intrusion of authorities. Journalists, researchers, lawyers and civil society rely on encryption and anonymity to shield themselves (and their sources, clients and partners) from surveillance and harassment.").

[200] *See* MICHEL FOUCAULT, TRUTH AND POWER, *in* POWER/KNOWLEDGE: SELECTED INTERVIEWS AND OTHER WRITINGS, 1972-1977, at 109, 115 (Colin Gordon ed., Colin Gordon et al. trans., 1980). Panopticism is defined as State power over citizens in the form of continuous supervision. *See also* Michel Foucault, *Truth and Juridical Forms*, *in* POWER: ESSENTIAL WORKS OF FOUCAULT 1954-1984, at 1, 70 (James D. Faubion ed., Robert Hurley et al. trans., The New Press 1994).

[201] *See* Jeffrey L. Vagle, *Furtive Encryption: Power, Trust, and the Constitutional Cost of Collective Surveillance*, 90 INDIANA L. J. 101, 106-07 (2015) (stating that over the past 4000 years encryption, in different forms has been used by priests, emperors, diplomats, generals, spies, insurgents, dissidents, criminals, prisoners, and even lovers).

[202] Jason Kerben, Comment, *The Dilemma for Future Communication Technologies: How to Constitutionally Dress the Crypto-Genie*, 5 COMM. LAW CONSPECTUS 125, 125 (1997).

secret codebreaking bureaus, called black chambers, that were kept secret from the public.[203] During World War II, cryptography became a focal point of the struggle over power when German intelligence began developing tools, like the Enigma machine, and the U.S. later decrypted Enigma and covertly employed it to win the War.[204] By the 1960s, government control and secrecy around encryption reached new heights of paranoia in the midst of the Cold War[205]—that is, until today.[206]

Recent attempts within the United States have caused national alarm around encryption. On February 16, 2016, a federal magistrate judge in the U.S. District Court for the Central District of California issued an order requiring Apple, Inc. to assist the Federal Bureau of Investigation (FBI) in obtaining data from an iPhone belonging to one of the members involved in the 2015 shooting in San Bernardino, California.[207] After Apple resisted the government's order, but before the court issued an opinion, the case was resolved when FBI agents accessed the data through other methods.[208] This case instigated heated rhetoric that reignited a decades-old debate about government control over encryption methods.[209] Few realize that the debate stems back to the country's origin.

The history of the United States government siphoning encryption from the hands of private innovators dates back to the Founding Era.[210] From the time of the

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[203] Throughout history, this practice continued to be mechanized in government institutions. Indeed, by the eighteenth century, the British Royal Mail was so commonly trying to break private and diplomatic ciphers that in 1720 it began to operate a specific system for deciphering mail. *See* John A. Fraser III, *The Use of Encrypted, Coded and Secret Communications is an 'Ancient Liberty' Protected by the United States Constitution*, 2 VA. J.L. & TECH. 1, 19 (1997).

[204] Enigma's code was infamously broken by the Allies, enabling them to locate and sink many German U-boats and contributing to their ultimate success in the war. Thinh Nguyen, *Cryptography, Export Controls, and the First Amendment in Bernstein v. United States Department of State*, 10 HARV. J.L. & TECH. 667, 668 (1997); John Duong, *Intersection of the Fourth and Fifth Amendments in the Context of Encrypted Personal Data at the Border*, 2 DREXEL L. REV. 313, 324 (2009).

[205] *Cf.* Delaney Hall, Episode 208: *Vox Ex Machina*, 99% INVISIBLE (Apr. 12, 2016), http://99percentinvisible.org/episode/vox-ex-machina/.

[206] *See* COMMITTEE TO STUDY NATIONAL CRYPTOGRAPHY POLICY, NATIONAL RESEARCH COUNCIL, CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY 96-97 (1996).

[207] HOUSE JUDICIARY COMMITTEE, ENCRYPTION WORKING GROUP YEAR END REPORT (Dec. 20, 2016), http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/documents/114/analysis/20161219EWGFINALReport_0.pdf.

[208] *Id.*

[209] *Id.*

[210] Governments have always encouraged private design because innovation, particularly in the creation of novel cryptographic systems, historically comes primarily from amateurs. RICHARD A. MOLLIN, CODES: THE GUIDE TO SECRECY FROM ANCIENT TO MODERN TIMES 101 (2005); *see*

Revolution through the early years of the United States, Benjamin Franklin, Thomas Jefferson, James Madison and a covey of other Founders used and even invented various codes, signals, and ciphers for their private communications.[211] Initially used to covertly send messages during the Revolution, these tools were later used by the Founders in their public capacities.[212] Franklin and Jefferson, who both invented their own encryption tools for private correspondence, later used these tools as French Ambassador and Secretary of State, respectively.[213] In fact, Thomas Jefferson used a cipher to encrypt a message to James Madison in August of 1789 to strengthen the language in the First Amendment.[214] Many civilians, including businesspeople and revolutionaries, also used encryption at that time to secure their communications "[a]nd no one questioned their right to do so—no matter the context or rationale behind their use of encryption."[215]

As the country grew, what was once a tacit usurpation by the government of private encryption quickly developed into more intense restraint.[216] Much like the Elizabethan regulation over the printing press, by the twentieth century, the federal government began enacting a series of laws, codes, and even patent regulations to control encryption. In fact, between 1874 and 1928 the United States Patent & Trademark Office only granted and published 105 patents on cryptological devices.[217] By the early twentieth century, the United States government also began

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also Danielle Kehl, Andi Wilson & Kevin Bankston, *Doomed to Repeat History: Lessons from the Crypto Wars of the 1990s*, NEW AMERICA (June 2, 2015), https://www.newamerica.org/cybersecurity-initiative/policy-papers/doomed-to-repeat-history-lessons-from-the-crypto-wars-of-the-1990s/.

[211] Fraser, *supra* note 204, at 24-33.

[212] *Id.*

[213] *Id.*

[214] Sarah Elizabeth Adler, *Encryption for All: Why This American Tradition Must be Upheld*, CAL. MAG., Jan. 31, 2017.

[215] Seth Schoen & Jamie Williams, *Crypto is for Everyone—History Proves It*, ELEC. FRONTIER FOUND. (Oct. 30, 2015), https://www.eff.org/deeplinks/2015/10/crypto-everyone-and-american-history.

[216] Norman Andrew Crain, *Bernstein, Karn, and Junger: Constitutional Challenges to Cryptography*, 50 AL. L. REV. 869, 874 ("The NSA has continuously attempted to control the development and expansion of cryptography in the private sector because it views the technology as a threat to national security.") (citing Laura M. Pilkington, *First and Fifth Amendment Challenges to Export Controls on Encryption:* Bernstein *and* Karn, 37 SANTA CLARA L REV. 159, 162)).

[217] Fraser, *supra* note 204, at 59 ("The Inventions Secrecy Act authorizes the Commissioner of Patents to refuse to issue patent secrecy orders, but it has not been effective in preventing the public dissemination of a number of strong, unpatented encryption products, and is not a mainstay of federal attempts to control encryption.").

poaching private cryptographers to work in government intelligence.[218] In addition, the government began restricting innovation in less visible ways.[219] As one commentator said, the U.S. government attempted to "control the development and expansion of cryptography in the private sector [by slowing] the growth and dissemination of cryptography by controlling public funding, patent publications, and presentation of scientific papers at academic conference[s]."[220] In essence, this created a 'Jekyll and Hyde' approach where the government's dependency on private innovation required careful facilitation of encryption for government purposes, while simultaneously choking back private use of encryption tools.

B. The Original Crypto Wars: 1960-2000

After a century of schizophrenic give-and-take behavior, the tension between government and private control over encryption finally began to boil over into what is often now described as the Crypto Wars. In the 1970s, a perfect storm began to brew when the paranoid Cold War government and its equally suspicious citizenry were introduced to a new encryption technology that could easily be employed. In particular, the invention of public key cryptography created in 1976 by Whitfield Diffie and Martin Hellman created the landing site for the government's fight for control.[221] Now called the "Diffie Helman key exchange," the invention was unique because, unlike previous cryptography, this approach allowed two or more parties to communicate securely "even if they had never previously met."[222] This discovery was so profound that it "laid the foundation for a number of innovations in secure communications over the next 40 years."[223]

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[218] For example, the government hired William Frederick Friedman, later honored as the father of U.S. cryptanalysis, from a private lab. Friedman was named the head of the U.S. Army's Signal Intelligence and later the NSA's chief cryptologist.

[219] Duong, *supra* note 205, at 325 (citing Press Release, Philip Bulman, Nat'l Inst. Of Standards & Tech., Commerce Department Announces Winner of Global Information Security Competition (Oct. 2, 2000), http://csrc.nist.gov/archive/aes/index.htn-l (follow "AES Press Release" hyperlink)). Perhaps the most dramatic example is when the U.S. government, through the National Institute of Standards and Technology, sponsored an open contest in 1997 to develop a new encryption standard. The winning entry was a cipher created by two Belgian scientists. The NSA eventually adopted the tool for classifying highly sensitive materials. *Id.*

[220] Crain, *supra* note 217, at 874 (citing Pilkington, *supra* note 217, at 162).

[221] Kehl et al., *supra* note 211, at 2 ("Everything changed with the invention of public key cryptography in 1976.").

[222] *Id*. at 2-3.

[223] *Id.* at 3.

In response to this new technology, the federal government began exercising fierce restrictions on private use of encryption in all branches of government.[224] First, Congress began developing laws that made possession of encryption a crime itself, thwarting private industry from exporting certain software.[225] Then, in 1983, President Reagan signed the National Security Decision Directive, an Executive Order that gave the NSA authority to control all private sector technology that could reasonably affect national security.[226] Coextensive with this directive, the agency decided by 1987 to no longer guarantee the security of its own encryption tools that it offered to the public,[227] and "developed a policy of opposition to private cryptographic research."[228] In the government's eyes, private innovation had become a threat to "government codes and intelligence gathering."[229]

The Crypto Wars came into full swing during the next decade when individuals gained even more access to new technology.[230] The 1990s were an especially tumultuous period because "the balance of encryption technology had effectively shifted back to the citizen," making the government incapable of asserting its control over information.[231] Although corporations had previously driven much of the private cryptographic development, by the 1990s individuals were easily able to purchase encryption tools[232] and began to develop "ever more secure methods of encryption" that could "frustrate interception attempts by even the most sophisticated government agencies."[233] Perhaps the best example of this

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[224] *Id*.

[225] Facing these rules, companies such as IBM and Digital Equipment Corporation questioned whether they could export hardware and software with strong encryption without government punishment. HAROLD ABELSON ET AL., KEYS UNDER DOORMATS: MANDATING INSECURITY BY REQUIRING GOVERNMENT ACCESS TO ALL DATA AND COMMUNICATIONS (2015), https://dspace.mit.edu/bitstream/handle/1721.1/97690/MIT-CSAIL-TR-2015-026.pdf.

[226] The Directive was withdrawn in 1987.

[227] This policy stood in sharp juxtaposition to ten years prior, in 1977, when the National Bureau of Standards developed with help from the NSA an IBM-made encryption chip, known as DES, for commercial use.

[228] Fraser, *supra* note 204, at 63. During that time, debates also brewed over whether the NSA or the National Institute of Standards and Technology (NIST) would control the development of cryptographic standards for the non-national security side of the government (NIST had been given authority under the 1987 Computer Security Act). ABELSON ET AL., *supra* note 226, at 8.

[229] Fraser, *supra* note 204, at 63.

[230] Kehl et al., *supra* note 211, at 3. "[P]olicymakers and advocates fiercely debated the tradeoffs related to the proliferation of encryption technology both in the United States and overseas." *Id.* at 1.

[231] Fraser, *supra* note 204, at 65.

[232] Kehl et al., *supra* note 211.

[233] Fraser, *supra* note 204, at 65.

type of encryption tool was Pretty Good Privacy ("PGP"), released publicly in 1991, for the encryption of email and files. As explained by its designer Philip Zimmerman, "until recently, if the government wanted to violate the privacy of ordinary citizens, they had to expend a certain amount of expense and labor to intercept and steam open and read paper mail"; with PGP and other similar tools, however, citizens could "take privacy into their own hands."[234]

While citizens saw this individual control as a victory, the government excoriated this shift as the "going dark" problem.[235] The "going dark" problem referred to "advancements in technology that le[ft] law enforcement and the national security community unable to obtain certain forms of evidence."[236] To frustrate this private hold over information, the U.S. government launched three large-scale attacks that have now become iconic events of the Crypto Wars.[237] The first occurred in 1993 when the government compromised the DES key, a private use encryption tool, to the point of total inefficacy by allowing a "backdoor" or alternative method of access for law enforcement.[238] The second followed when the Clinton Administration proposed a new device, called the Clipper Chip. The Clipper Chip infamously sought to require all encryption systems to retain a "key escrow," or a third party copy of the keys that could be handed over to law enforcement to decrypt a message, which inherently compromised the technology. This proposal created a "groundswell of opposition from privacy advocates, industry representatives, and prominent politicians."[239]

While the Clipper Chip debacle ultimately failed after immense public outcry, law enforcement persisted with yet a third tactic, which would spur the biggest fight yet: legislation. The idea for the legislation occurred after telephone companies switched from analog to digital, making it impossible for law enforcement to continue wiretapping calls.[240] The FBI complained that this switch amounted to yet another example of the "going dark" problem, and firmly held that the agency

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[234] Kehl et al., *supra* note 211, at 3.

[235] Federal Bureau of Investigation, *Going Dark*, https://www.fbi.gov/services/operational-technology/going-dark (last visited Feb. 26, 2017) [hereinafter *Going Dark*].

[236] HOUSE JUDICIARY COMMITTEE, *supra* note 211, at 2.

[237] Jill M. Ryan, *Freedom to Speak Unintelligibly: The First Amendment Implications of Government-Controlled Encryption*, 4 WM. & MARY BILL RTS. J. 1165, 1174-89 (1996) (reviewing actions of the federal government in recent years and concluding that the goal is the control of encryption).

[238] Kehl et al., *supra* note 211.

[239] *Id*. at 1, 9 (stating Congress held hearings on the merits of key escrow).

[240] Ahmed Ghappour, *Searching Places Unknown: Law Enforcement Jurisdiction on the Dark Web*, STAN. L. REV. 10, 22 (2017) (citation omitted).

needed to preserve its access to telephone and Internet data.[241] After fierce debate between privacy advocates and law enforcement, both sides reached a compromise with the passage of the Communications Assistance for Law Enforcement Act ("CALEA") in 1994.[242] CALEA required telecommunications carriers to make their equipment available to federal agencies to conduct surveillance,[243] but a key concession was made for encryption. CALEA included an explicit exception so that providers are not compelled to decrypt customer communications.[244]

Because the government was unable to impose backdoors through CALEA, it instead created another, more aggressive, program known as the International Traffic

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[241] *Going Dark*, *supra* note 236.

[242] Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994).

[243] Albert Gidari, *More CALEA and Why It Trumps the FBI's All Writs Act Order,* THE CENTER FOR INTERNET AND SOCIETY (Feb. 22, 2016), http://cyberlaw.stanford.edu/blog/2016/02/more-calea-and-why-it-trumps-fbis-all-writs-act-order ("The law was passed in 1994 in response to law enforcement's concerns that it was then 'going dark' with the advent of digital telephony and the Internet. The Director of the FBI at that time testified that CALEA was necessary to preserve the capabilities it always had to intercept *all* communications. But in the end, CALEA was a compromise, giving law enforcement a narrowly focused capability to carry out lawfully authorized surveillance on public switched and cellular networks, but imposing certain privacy protections and limitations on law enforcement's ability to 'imped[e] the development of new communications services and technologies.' In short, the FBI did not get a future-proof legislative mandate to gain access to evidence it all new technologies or the ability to block introduction of secure technologies . . . Congress also determined that carriers would have no responsibility to decrypt encrypted communications unless the carrier provided the encryption and could in fact decrypt it . . . . So while CALEA provided law enforcement with some surveillance capabilities on phone networks (which the Federal Communications Commission later extended to broadband Internet access and two-way Voice over IP), it precluded the government from requiring 'any specific design of equipment, facilities, services, features, or system configurations to be adopted by any manufacturer of telecommunications equipment.'"). CALEA contains a major carve-out for encryption that was, like CALEA's other exemptions, the result of a very hard-fought battle during the drafting of CALEA, and a major win for the cryptography and civlib communities that provided a lot of input and expert testimony in the drafting process. *See* 47 U.S.C. 1002(b)(3).

[244] Kehl et al., *supra* note 211, at 8 (47 U.S.C. § 1002(b)(3) explicitly states that a "telecommunications carrier shall not be responsible for decrypting, or ensuring the government's ability to decrypt, any communication encrypted by a subscriber or customer, unless the encryption was provided by the carrier and the carrier possesses the information necessary to decrypt communication." The legislative history further explains, "nothing in this paragraph would prohibit a carrier from deploying an encryption service for which it does not retain the ability to decrypt communications for law enforcement access."). *See also* Steven M. Bellovin et al., *Lawful Hacking: Using Existing Vulnerabilities for Wiretapping on the Internet*, 12 NW. J. TECH. & INTELL. PROP. 8, 13 (2014).

in Arms Regulations ("ITAR").[245] Under ITAR, the President was authorized to include certain articles on the United States Munitions List.[246] In order to export an item on the list, an individual would be required to provide further approval, such as obtaining a license from the government, akin to the seventeenth-century Stationer system in England.[247] Conveniently, the regulation defined "export" as including any process of making cryptography public, including downloading or causing the downloading of software to the Internet. Therefore, not only was encryption code being flagged as a type of munition under the statute requiring government approval,[248] but also the regulation defined "export" as broadly as encompassing sharing the code on the Internet.[249] This categorization subjected encryption to "more stringent export regulations" than any other type of software.[250]

ITAR would eventually become the fatal blow to the government's position during the Crypto Wars, winning disfavor not only with the public but also within the courts. A major criticism of ITAR was that it created a massive impediment for cryptographers, students, and scientists hoping to share cryptographic code with one another for teaching, edification, and further academic development. In other words, the government's regulation of encryption was limiting free speech, a point underscored in the landmark encryption case, *United States v. Bernstein*. At the center of the controversy stood Daniel J. Bernstein, a graduate student at the University of California, who wrote and tried to publish code "for a zero delay private-key stream encryption based upon a one-way hash function,"[251] an

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[245] 22 C.F.R. §§ 120.1-130.17 (1999). The ITAR regulations are adopted under the authority of the Arms Export Control Act, 22 U.S.C. §§ 27512796(d) (1994).

[246] 22 U.S.C. § 27786(a)(1) (1996).

[247] Ryan Fox, *Old Law and New Technology: The Problem of Computer Code and the First Amendment*, 49 UCLA L. REV. 871, 887 (2001).

[248] Encryption Items Transferred from the U.S. Munitions List to the Commerce Control List, 61 Fed. Reg. 68, 572-73 (Dec. 30, 1996) (codified in scattered sections of 15 C.F.R. pts. 730774).

[249] *See* 15 C.F. R. § 734.2(b)(9)(i)(B)(ii).

[250] Junger v. Daley, 8 F. Supp. 2d 708, 711 (N.D. Ohio 1998), *rev'd*, 209 F.3d 481 (6th Cir. 2000).

[251] Bernstein v. Dep't of Justice, 176 F.3d 1132, 1136 (9th Cir.), *vacated for rehearing en banc*, 192 F.3d 1308 (1999). In Judge Betty Fletcher's analysis, she described that Bernstein's "one-way hash function could be employed as the heart of an encryption method. The Snuffle source code . . . was meant as an expression of how this might be accomplished . . . Snuffle was also intended, in part, as a political expression. Bernstein discovered that the . . . regulations controlled encryption exports, but not one-way hash functions. Because he believed that an encryption system could easily be fashioned from any of a number of publicly-available one-way hash functions, he viewed the distinction . . . as absurd. To illustrate his point, Bernstein developed Snuffle, which is encryption system built around a one-way hash function." 176 F.3d at 1140 nn.11-12.

encryption program he called "*Snuffle*."[252] Put simply, Bernstein wanted to publish a paper containing his mathematical equations.[253] To move forward with his plan, Bernstein contacted the State Department to determine whether his code qualified as munitions under ITAR.[254] The Department wrote back, concluding that Bernstein had to "register as an arms dealer, [and] apply for an export license," and warned that even then a license was unlikely.[255] Upon receiving this response, Bernstein sued for injunctive and declaratory relief in the District Court for the Northern District of California.[256]

On May 6, 1999, after four years and one regulatory change, the Ninth Circuit issued a ruling in favor of Bernstein. The court held that encryption code was more like speech than conduct,[257] and that the requirement for a license amounted to an invalid prior restraint.[258] In making this determination, the court admitted, "[t]he more difficult issue arises" in determining whether encryption exhibits "a close enough nexus to expression"[259] or unprotected conduct as in *United States v. O'Brien*, in which the Supreme Court held that burning a draft card was unprotected conduct.[260] The difficulty in making this determination was that encryption code seemed to be actively related to technology, which the court considered distinct from

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[252] *Bernstein*, 176 F.3d at 1136 n.1.

[253] Browder, *supra* note 197, at 437.

[254] *Id*.

[255] Alison Dame-Boyle, *EFF at 25: Remembering the Case that Established Code as Speech*, ELEC. FRONTIER FOUND. (Apr. 16, 2015), https://www.eff.org/deeplinks/2015/04/remembering-case-established-code-speech.

[256] Bernstein v. U.S. Dep't of State, 922 F. Supp. 1426, 1430 (N.D. Cal. 1996). He also filed an administrative appeal with respect to the department's jurisdiction determination. His theories for relief were expansive, claiming that the regulations were "a content-based infringement on speech, act as an unconstitutional prior restraint on speech, are vague and overbroad…infringe the rights of association and equal protection" and "that the actions of defendants are arbitrary and capricious and constitute an abuse of discretion under the Administrative Procedure Act." *Id*. at 1430-31.

[257] Bernstein v. Dep't of Justice, 176 F.3d 1132, 1141 (9th Cir.),. The *Bernstein* decision generated three separate opinions from the three-judge panel. In the majority opinion, the judges appeared more convinced by the possible negative outcomes not wanting to chilling scientific speech, rather than being convinced that code is speech. *See id.* (stating that code had sufficiently expressive characteristics to be speech and emphasizing that a contrary result would chill speech related to cryptography.)

[258] *Id.* at 1144-45.

[259] The decision generated three district court opinions and, consequently, was appealed to the Ninth Circuit. The Ninth Circuit initially ruled in favor of Bernstein but ultimately the full Ninth Circuit granted the government a rehearing en banc and withdrew the panel's opinion. 192 F.3d 1308 (9th Cir. 1999). For a fuller history of the case, *see* Browder, *supra* note 197, at 437-40.

[260] United States v. O'Brien, 391 U.S. 367 (1968).

speech. In fact, the court abstained from deciding whether object code (instructions created by a computer)[261] amounted to protected speech.[262] Ultimately, despite this difficulty, the Ninth Circuit decided that "cryptographers use source code to express their scientific ideas in much the same way that mathematicians use equations or economists use graphs . . . [because of this]" it held that ITAR amounted to a prior restraint on speech."[263]

Soon after *Bernstein,* other Circuit Courts in the United States Courts of Appeals decided similarly, finding that cryptography was protected under the Speech Clause of the First Amendment.[264] These decisions did not merely adopt *Bernstein*'s holding, they greatly elaborated on it, making ever more floral arguments to assert that code is speech. For example, the Second Circuit analogized code to "[m]athematical formulae and musical scores" because all three are "symbolic notations not comprehensible to the uninitiated."[265] The Sixth Circuit similarly wrote that code, like a musical score, is "an expressive means for the exchange of information and ideas."[266] Citing the Supreme Court, the Sixth Circuit

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[261] Fox, *supra* note 248, at 876-77 (distinguishing source code as programming steps that are created by a programmer with a text editor in languages such as C, C++, LISP, Java, HTML and XML that can be easily read by professionals consisting of statements that demonstrate the exact steps a computer should be taking, from object code which is a "sequence of instructions that the processor can understand but that is difficult for a human to read or modify"). *See also Bernstein*, 176 F.3d at 1141 n.15; Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 306 (S.D.N.Y. 2000), *aff'd sub nom.*, Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001). *But see* Lee Tien, *Publishing Software as a Speech Act*, 15 BERKELEY TECH. L.J. 629, 633 n.13 (2000) (stating that distinguishing source code and object code "for First Amendment purposes appears largely pointless").

[262] Judge Bright's separate concurrence stated that "encryption source code also has the functional purpose of controlling computers and in that regard does not command protection under the First Amendment." *Bernstein*, 176 F.3d at 1147 (concurring opinion). Thus, the Circuit did not express an opinion on whether object code manifests a "close enough nexus to expression" to warrant application of the prior restraint doctrine. However, it should be noted that Bernstein's Snuffle did not involve object code, nor does the record contain any information regarding expressive uses of object code in the field of cryptography.

[263] Bernstein v. Dep't of Justice, 176 F.3d 1132, 1141 (9th Cir.),. Government efforts to control encryption thus may well implicate not only the First Amendment rights of cryptographers intent on pushing the boundaries of their science, but also the constitutional rights of each of us as potential recipients of encryption's bounty. Viewed from this perspective, the government's efforts to retard progress in cryptography may implicate the Fourth Amendment, as well as the right to speak anonymously. *See* McIntyre v. Ohio Elections Comm'n, 115 S. Ct. 1511, 1524 (1995).

[264] *See e.g.*, *Corley*, 273 F.3d at 449 (2d Cir. 2001); Junger v. Daley, 209 F.3d 481, 485 (6th Cir. 2000); 321 Studios v. Metro Goldwyn Mayer Studios, Inc., 307 F. Supp. 2d 1085, 1099-1100 (N.D. Cal. 2004); United States v. Elcom Ltd., 203 F. Supp. 2d 1111, 1126 (N.D. Cal. 2002).

[265] *Corley*, 273 F.3d at 445-46.

[266] *Junger*, 209 F.3d at 484.

stated that code mirrored the expression found in "the paintings of Jackson Pollock, [the] music of Arnold Schoenberg and [in] Lewis Carroll's Jabberwocky."[267] Code was soon being compared to the greatest artistic expressions of all time. With this judicial consensus the Crypto Wars came to an end.

In the wake of *Bernstein*, however, some lawyers and academics appeared to disagree. A number of articles were published describing various holes in the Speech Clause justification. Some argued that the Speech Clause was not enough to shield encryption from protection because "[j]ust as there are certain classes of 'traditional' speech that lack standard First Amendment protection (like defamation, obscenity, or threats), there is code so dangerous that it cannot be allowed at all."[268] Viruses, such as 'Michelangelo' in the early 1990s, could be so destructive that they would erase all data on the computer's hard drive, and spread unannounced from an unknown origin.[269] Similarly, encryption could be described as so dangerous that it would not warrant protection.

Others argued that the Speech Clause justification for encryption produced inconsistent results[270] because of the "desire to peg software as either all speech or not speech, which is overly simplistic."[271] This pithy argument that all "code is speech" harkened back to the defunct *Chaplinsky* doctrine. In *Chaplinsky*, the Court established that certain categories of speech—such as hate speech, commercial speech and pornography—are outside of the Speech Clause's protection.[272] Since the 1970s, however, courts have largely eviscerated these silos of speech.[273] Expanding on these already lingering absolutist categories of speech today would go against the trend of First Amendment protection established over the last thirty years.[274]

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[267] *Id*. (citing Hurley v. Irish-American Gay, Lesbian and Bisexual Group, 515 U.S. 557, 569 (1995)); *see also* Fox, *supra* note 248, at 879; *Bernstein*, 176 F.3d at 1141. In essence, the argument was that program code was language, a "formal system of expression" with a set vocabulary, syntax rules, and assignment of meaning.

[268] Fox, *supra* note 248, at 882.

[269] *Id*.

[270] *Id*. at 904 (citing Robert Post, *Recuperating First Amendment Doctrine*, 47 STAN. L. REV. 1249, 1250-51 (stating that the contemporary First Amendment doctrine is full of "internal incoherence . . . [and] its distressing failure to facilitate constructive judicial engagement with significant contemporary social issues connected with freedom of speech")).

[271] *Id.* at 904.

[272] Chaplinsky v. New Hampshire, 315 U.S. 568, 571-72 (1942).

[273] *See generally* Baranetsky, *supra* note 10; *cf*. New York v. Ferber, 258 U.S. 747 (1982) (holding that the First Amendment right to free speech did not preclude states from banning the sale of sexually explicit material depicting children, even if not obscene).

[274] Tien, *supra* note 262, at 652.

Yet as many academics noted,[275] the greatest difficulty with protecting encryption under the Speech Clause is that under this analysis courts must distinguish between encryption's expressive value and its conduct, which is not protected under the Clause.[276] This speech/conduct doctrine was first established in *United States v. O'Brien*, where the Supreme Court found that burning a draft card was not protected speech because the action was not pure speech, but rather speech mixed with conduct.[277] Applying an intermediate level of scrutiny test,[278] the Court concluded that it could not "[a]ccept the view that an apparently limitless variety of conduct can be labeled 'speech' whenever the person engaging in the conduct intends thereby to express an idea."[279]

To overcome this speech/conduct hurdle, many Courts discussed encryption as merely "functional." In *Junger*, for example, the Sixth Circuit wrote that source code has both "an expressive feature and a functional feature."[280] Similarly, the *Corley* court wrote, "the fact that a program has the capacity to direct the functioning of a computer does not mean that it lacks the additional capacity to convey

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[275] Much of these discussions were based on academics writing at the time. *See, e.g.*, Katherine A. Moerke, Note, *Free Speech to a Machine? Encryption Software Source Code Is Not Constitutionally Protected "Speech" Under the First Amendment*, 84 MINN. L. REV. 1007 (2000); Yvonne C. Ocrant, Comment, *A Constitutional Challenge to Encryption Export Regulations: Software Is Speechless*, 48 DEPAUL L. REV. 503 (1998).

[276] Nguyen, *supra* note 205, at 675 n.69; *see* LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW § 12-7 (2d ed. 1988) (noting that the speech/conduct distinction was created in labor picketing cases such as Thornhill v. Alabama, 310 U.S. 88 (1940) and that the dichotomy is too simple, consistent or meaningful); Cass R. Sunstein, *Words, Conduct, Caste*, 60 U. CHI. L. REV. 795 (1993) (asserting that protection of speech should be determined based on its goals of fostering democracy and equality, not on the speech/conduct distinction). *See also* Stephanie M. Kaufman, *The Speech/Conduct Distinction and First Amendment Protection of Begging in Subways*, 79 GEO. L.J. 1803 (1990); Paul Reidinger, *The Expressionists: When Is Conduct Speech?*, 76 A.B.A. J. 90 (1990) (surveying recent court decisions implementing the speech/conduct distinction); Sally A. Specht, *The Wavering, Unpredictable Line Between "Speech" and Conduct*, 40 WASH. U. J. URB. & CONTEMP. L. 173 (1991); Aviva O. Wertbeimer, *The First Amendment Distinction Between Conduct and Content*, 63 FORDHAM L. REV. 793 (1994).

[277] 391 U.S. 367, 377 (1968).

[278] The Court in *O'Brien* created a three-part test, requiring the government to merely show that the regulation (1) furthered an important or substantial government interest, (2) was unrelated to the suppression of free speech, and (3) was no greater than necessary to further the non-speech interest. *Id.* at 369, 377.

[279] *Id.* at 376. The Court upheld a law providing that any person who "forges, alters or knowingly destroys, knowingly mutilates, or in any manner changes" his draft certificate has committed a crime. *Id.* at 370. The regulation was brought before the Court when David O'Brien burned a copy of his draft card as a sign of "public protest." *Id*. at 369.

[280] Junger v. Daley, 209 F.3d 481, 484 (6th Cir. 2000).

information."[281] Speech that is merely functional, unlike conduct, warrants protection according to First Amendment doctrine.[282] For example, how-to manuals, blueprints, and even guides for committing murder have all received First Amendment protection.[283] Employing this analysis, courts were able to describe encryption's practical effect without having to exclude it from protection under the Speech Clause.[284]

However, this analogy was hard pressed.[285] Encryption often does more than a blueprint or a score of music; it often behaves like the piano, as well as the notes. As other commentators in the wake of *Bernstein* mentioned, the Speech Clause is "ill-suited to the realities of computer technology because software inseparably incorporates elements of both expression and function."[286] This is precisely the hiccup that the District Court in *Junger* pointed to when it stated, "source code is by

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[281] Universal City Studios, Inc. v. Corley, 273 F.3d 429, 447-48 (2d Cir. 2001) ("A recipe is no less 'speech' because it calls for the use of an oven, and a musical score is no less 'speech' because it specifies performance on an electric guitar. Arguably distinguishing computer programs from conventional language instructions is the fact that programs are executable on a computer. But the fact that a program has the capacity to direct the functioning of a computer does not mean that it lacks the additional capacity to convey information, and it is the conveying of information that renders instructions 'speech' for purposes of the First Amendment. The information conveyed by most 'instructions' is how to perform a task.").

[282] Writing an amicus brief in the *Bernstein* case, several professors tried to distinguish that "[p]rogram code conveys information both from and to humans; humans themselves write the program code. Such code is admittedly characterized by functionality, but this alone fails to distinguish it from other languages." Brief for Bernstein as Amici Curiae Supporting Appellee at 2, Bernstein, 192 F.3d 1308 (9th Cir. 1999) (No. 97-16686). Similarly, the Court in *Junger* wrote, "[t]he fact that a medium of expression has a functional capacity should not preclude constitutional protection." 209 F.3d at 484-85. *See also* Bernstein, 922 F. Supp. at 1435-36 (stating that the functional nature of source code is "immaterial" to the free speech analysis).

[283] *See* United States v. The Progressive, Inc., 467 F. Supp. 990 (W.D. Wis. 1979) (finding that a set of instructions for how to build a nuclear bomb was speech and stating that prior restraints are unconstitutional); Rice v. Paladin Enterprises, Inc., 940 F. Supp. 836 (S.D. Md. 1996). These informational products, like computer program code, convey both expressive and functional content; in many cases, the functional content of such speech far exceeds its creative expression. However, First Amendment jurisprudence does not support diminished protection for speech based on its functionality. *See, e.g.*, *id.*

[284] As Lee Tien has suggested, however, functionality is really a "proxy for effect or harm" because there are strong causation issues inherent in the relationship between the code's function and the harm caused by its use. Tien, *supra* note 262, at 695.

[285] Fox, *supra* note 248, at 876 ("[T]his binary 'is it speech or not' question, and the doctrine upon which the functionality questions are based, are fundamentally flawed discussions that place computer code in a tenuous position from the start.").

[286] Nguyen, *supra* note 205, at 675-76. *See also* Fox, *supra* note 248, at 873; Tien, *supra* note 262, at 652.

design functional: it is created and, if allowed, exported to do a specified task, not to communicate ideas."[287] Unlike other software, encryption code "actually do[es] the function of encrypting data."[288] With this thought in mind, the *Bernstein* court reserved judgment on object code—"the pure instructional data that is created to run directly on a computer's processor"—because object code is even more distinctly part of conduct.[289] To make matters more complicated, it is this element of encryption—its act of encrypting—that government is wary of because it undermines government power[290] and can have deleterious secondary effects by helping nefarious minds communicate.[291] Therefore, protection under the Speech Clause is limited.

While most courts dodged the conduct analysis,[292] one court did not. In *Karn v. United States Department of State*,[293] the District Court for the District of Columbia applied the conduct analysis from *O'Brien* to reach an unfavorable decision with regard to encryption. In 1994, Philip Karn, like Bernstein, submitted a request to the Department of State to determine whether a floppy disk containing code from a book titled *Applied Cryptography* would be subject to ITAR.[294] The

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[287] Junger v. Daley, 8 F. Supp. 2d 708, 717 (N.D. Ohio 1998).

[288] *Id.* at 720. The lower court continued that although "encryption source code is occasionally expressive," it was not "sufficiently communicative" because "encryption software is especially functional rather than expressive" so "its export is not protected conduct under the First Amendment." *Id*. at 715-16.

[289] Fox, *supra* note 248, at 880-81 (describing object code as looking to a human like "nothing more than a string of seemingly meaningless numbers" in contrast to source code, which is more meaningful than the English language in certain circumstances, but still arguing that "the idea of removing First Amendment protection directly on determination of the particular type of code at issue, while an easy test to perform, needs to be replaced" because "there are some pieces of object code that by their nature or their use implicate values served by the First Amendment.").

[290] *Id.* at 881 (citing LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 5 (1999) (stating that the values in different codes "can even be political in nature; code can represent and change power struggles in cyberspace")).

[291] While cryptography can protect the privacy of journalists, bank records and other transactions, other injurious uses of cryptography do exist, such as crime and terrorism. "The ineluctable fact is that the government's interest in preventing technology from falling into the hands of terrorists and criminals is not significantly advanced by curtailing the publication of source code." Browder, *supra* note 197, at 443.

[292] In *Junger*, the court wrote about function, rather than conduct to sidestep this problem. Junger v. Daley, 209 F.3d 481, 485 (6th Cir. 2000).

[293] Karn v. United States Dep't of State, 925 F. Supp. 1 (D.D.C. 1996), *remanded*, 107 F.3d 923 (D.C. Cir. 1997).

[294] *Id*. at 3. In fact, Karn submitted an application for the book as well as a diskette containing the same exact information. The government determined the book was not subject to the jurisdiction of the State Department under ITAR, but that the diskette was. *See* Kerben, *supra* note

government took the position that the code was subject to the regulation as a defense article and, therefore required a license.[295] Like Bernstein, Karn filed suit against the government, arguing that the government's regulation of the transport of the diskette violated his First Amendment rights.[296]

By applying the *O'Brien* test,[297] the District Court in *Karn* awarded summary judgment to the government and dismissed the case.[298] To reach this conclusion, the lower court reasoned ITAR was content-neutral because the government merely intended to stop encryption which threatened national security.[299] Although the case was appealed, the Circuit Court remanded it to back to the lower court for rehearing because of a change in law.[300] To this day, *Karn* stands in opposition to *Bernstein*, for the proposition that "so long as judges continue to see functional aspects [of encryption] as being nonexpressive conduct," *O'Brien* will likely make protection of encryption under the Speech Clause difficult.[301]

Although both perspectives of the speech versus conduct debate are convincing, neither is more correct than the other. Code is at the same time speech *and* conduct. Trying to create a speech/nonspeech division through the *O'Brien* analysis is a fallacy, as John Hart Ely explained in a canonical *Harvard Law Review* article.[302] Discussing *O'Brien*, Ely noted that just as "burning a draft card to express opposition to the draft is an undifferentiated whole, 100% action and 100% expression encryption involves no conduct that is not at the same time

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203, at 152 n.185 (explaining Karn was interested in showing the incongruities of the law and so he tested the law by applying for the declaratory judgment on the book to compare it with the information later tested on the diskette).

[295] *Karn*, 925 F. Supp. at 4.

[296] *Id*.

[297] *Id*. at 10.

[298] *Id*. at 14.

[299] *Id*. at 10 (stating encryption made it "easier for foreign intelligence targets to deny the United States Government access to information vital to national security interests").

[300] *Id.*

[301] Fox, *supra* note 248, at 886 (stating the test articulated in *Spence* will "also erect further barriers if one does not understand exactly to whom the 'speaker' of the code is speaking").

[302] *See* John Hart Ely, *Flag Desecration: A Case Study in the Roles of Categorization and Balancing in First Amendment Analysis*, 88 HARV. L. REV. 1482, 1495 (1975) ("[B]urning a draft card to express opposition to the draft is an undifferentiated whole, 100% action and 100% expression. It involves no conduct that is not at the same time communication, and no communication that does not result from conduct. Attempts to determine which element 'predominates' will therefore inevitably degenerate into question-begging judgments about whether the activity should be protected.").

communication"[303] because the same structure used to express idea can be "transformed into an instrument of conducts."[304] An apt constitutional justification, therefore, would recognize this aspect of code as both expressive speech and as enabling conduct.[305] For this reason, even though encryption retains its constitutional protection under the Speech Clause,[306] a helpful alternative method of protection would acknowledge this dual nature of encryption.[307]

C. Today's Crypto Wars and Bernstein

In the decades following *Bernstein*, the climate quickly shifted, and many proclaimed that the Crypto Wars were dead.[308] *Bernstein* had altered the tide for cryptographers by securing protection for encryption under the Speech Clause.[309] In addition to the positive jurisprudence, encryption soon became ubiquitous. No longer were a limited number of government officers and a few technical specialists the only individuals with access to encryption technology.[310] Instead, encryption began appearing in various household devices (such as DVDs, Blu-ray players, wireless routers), as well as everyday online billing services, bank transactions, HTTPS, and commonplace operating systems (such as Microsoft Windows).[311] Given its new omnipresence, encryption became seemingly impossible to regulate.

For many years, in this stable climate, encryption ushered in a new level of free expression. As the American Civil Liberties Union stated in a report to the UN

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[303] *Id*.

[304] Fox, *supra* note 248, at 907.

[305] *See id*. at 873 ("Simply put, code is the instructions people write to tell computers what to do. Computers operate by executing those instructions, thus code is fundamental to all computer technology.").

[306] *See* Junger v. Daley, 209 F.3d 481, 485 (6th Cir. 2000).. The strength for protection of encryption under the Speech Clause is still somewhat debatable. In addition to *Bernstein* being removed by the panel, the Circuit in *Junger* did not explicitly state whether encryption should receive First Amendment protection, but merely that the district court too quickly accepted the government's assertions for the need of export regulations. *See* Fox, *supra* note 248, at 876 ("[T]his binary 'is it speech or not' question, and the doctrine upon which the functionality questions are based, are fundamentally flawed discussions that place computer code in a tenuous position from the start.").

[307] *Cf.* TRIBE, *supra* note 277, at 978 n.2 ("It would . . . be wrong to conclude that some form of first amendment scrutiny is triggered whenever government does anything that happens to reduce the flow of information or ideas.").

[308] *See* ABELSON et al., *supra* note 226, at 8.

[309] *See id.* This statement is made with the caveat of the *Karn* ruling.

[310] *See* Pilkington, *supra* note 217, at 168 (discussing how private encryption technology has steadily grown with the advancement of computer technology).

[311] Duong, *supra* note 207, at 326.

Human Rights Council, "encryption and anonymity are the only effective safeguards against [the government's] assault on freedom of expression and association."[312] Similarly, a report by David Kaye, UN Special Rapporteur for Freedom of Expression and Opinion, stated that "[e]ncryption and anonymity provide individuals and groups with a zone of privacy online to hold opinions and exercise freedom of expression without arbitrary and unlawful interference or attacks[;] encryption and anonymity are protected because of the critical role they can play in securing those rights."[313] Another report went on to even credit encryption with having improved the economy.[314]

Recently, the consensus that encryption is good for democracy has once more been called into question.[315] Following the revelations made by Edward Snowden in June 2013 that the NSA maintains a pervasive surveillance program[316] civic society organizations, technology companies, journalists, and members of the public came forward once more to embrace encryption as a method to resisting government overreach. This coalition of groups highlighted encryption as crucial to ensuring secure messaging free from government intrusion. However, government officials as well as law enforcement revived their critique and warned against the going dark effect, using recent terrorist attacks as a rallying cry to regulate encryption.

In 2010, for instance, the FBI advocated that Congress legislate that all communications systems create backdoors for law enforcement.[317] Immediate pushback from technology companies, privacy advocates, and the public caused the initiative to quickly fade, but the FBI returned to Congress in 2013, urging it to extend CALEA to online companies that encrypt their messaging services.[318] Yet again, the FBI's urgings failed. After the attacks in Paris and San Bernardino,

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[312] *ACLU Submission*, *supra* note 105.

[313] KAYE, *supra* note 200, at 3 ("Encryption and anonymity, today's leading vehicles for online security, provide individuals with a means to protect their privacy, empowering them to browse, read, develop and share opinions and information without interference and enabling journalists, civil society organizations, members of ethnic or religious groups, those persecuted because of their sexual orientation or gender identity, activists, scholars, artists and others to exercise the rights to freedom of opinion and expression.").

[314] Kehl et al., *supra* note 211, at 20 ("[o]ver the past fifteen years, a virtuous cycle between strong encryption, economic growth, and support for free expression online has evolved").

[315] *See id.* at 21.

[316] *See id.*

[317] *See* Charlie Savage, *U.S. Tried to Make it Easier to Wiretap the Internet*, N.Y. TIMES (Sept. 27, 2010), http://www.nytimes.com/2010/09/27/us/27wiretap.html?_r=2&; *see also* Ryan Singel, *FBI Drive for Encryption Backdoors is Déja vu for Security Experts*, WIRED (Sept. 27, 2010), https://www.wired.com/2010/09/fbi-backdoors-2/.

[318] *Id.*

however, law enforcement's commitment became unwavering. In 2014, FBI Director James Comey proclaimed that encryption was a serious threat to national security.[319] Soon after, the agency filed suit against Apple and Congress introduced the Burr-Feinstein anti-encryption bill.[320]

Those in favor of encryption responded with many of the same arguments made in the 1990s, as well as some new ones.[321] In *Apple v. FBI*, for instance, the government argued that according to an antiquated law called the All Writs Act, Apple was required to comply with the FBI's request and unlock the iOS (Apple's iPhone operating system) of a San Bernardino shooter.[322] In response, Apple fell back on the stalwart recitation of speech cases starting with *Bernstein*. In its motion to vacate, the company wrote, "[t]he government asks this Court to command Apple to write software that will neutralize safety features . . . [but u]nder well-settled law, computer code is treated as speech within the meaning of the First Amendment

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[319] James B. Comey, *Going Dark: Are Technology, Privacy, and Public Safety on a Collision Course?*, Speech at the Brookings Institution (Oct. 2014), https://www.fbi.gov/news/speeches/going-dark-are-technology-privacy-and-public-safety-on-a-collision-course ("Cyber adversaries will exploit any vulnerability they find. But it makes more sense to address any security risks by developing intercept solutions during the design phase, rather than resorting to a patchwork solution when law enforcement comes knocking after the fact. And with sophisticated encryption, there might be no solution, leaving the government at a dead end—all in the name of privacy and network security.").

[320] *See* Compliance with Court Orders Act of 2016 (discussion draft), 114th Cong. (2d Sess. 2016), http://www.burr.senate.gov/imo/media/doc/BAG16460.pdf (last accessed Mar. 26, 2017). Ultimately, the bill was not passed. Rainey Reitman, *Security Win: Burr-Feinstein Proposal Declared "Dead" for This Year*, ELEC. FRONTIER FOUND. (May 27, 2016), https://www.eff.org/deeplinks/2016/05/win-one-security-burr-feinstein-proposal-declared-dead-year. Recent developments following the election of President Donald Trump and his new Administration have caused many anticipate that the Administration will take a strong stance against encryption, especially because of heavy leaks from the White House. Chris Kanaracus and Steve Wilson, *Expect Renewed Push for Encryption Backdoors from Trump Administration*, *ZDNET* (Jan. 26, 2017, 2:39 PM), http://www.zdnet.com/article/expect-renewed-push-for-encryption-backdoors-from-trump-administration/.

[321] Kehl et al., *supra* note 211, at 21 (citing Statement of Kevin S. Bankston, Policy Director of New America's Cybersecurity Initiative, *Hearing on Encryption Technology and U.S. Policy Responses, Before the US House of Representatives Subcommittee on Information Technology of the Committee on Oversight and Government Reform*, (Apr. 29, 2015), https://static.newamerica.org/attachments/2982-at-crypto-hearing-best-arguments-against-backdoor-mandates-come-from-members-of-congress-themselves/Bankston_Written_Testimony.5876d326c5fc4e0cbd17b59e8d53384f.pdf).

[322] 28 U.S.C. § 1651(a) (stating federal courts may "issue all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law").

(citing *Bernstein*, *Corley*, *Junger*, and *MGM*)."[323] At least three other amicus briefs supporting Apple's position also cited *Bernstein*. The case also began appearing in news articles around the country discussing the government's position.[324]

Although the court in *Apple* never reached a decision because the government found an alternate method to access the phone,[325] the case solidified *Bernstein* as the predominant legal approach for encryption advocates, and, moreover, that the Crypto Wars were back. In this second epoch of the Crypto Wars, this seemingly familiar debate has an "added urgency" that requires consideration of new legal analysis to take into account the development of the surveillance state and the growing dependency on technology and the Internet.[326] While some commentators have posed important new economic and policy arguments for protecting encryption, this Article suggests the Press Clause as novel legal justification for encryption.[327]

D. Encryption under the Press Clause

In addition to the *Bernstein* line of cases, the Press Clause should be utilized as a legal justification for protecting encryption because it highlights certain descriptive qualities of encryption that the Speech Clause does not encapsulate. For instance, the Press Clause specifically protects the use of tools that moderate the flow of information even if they might appear to threaten national security. In addition to its descriptive power, the Press Clause also has normative force, as it underscores the tool's structural importance for checking government power in this "golden age of surveillance."[328] In this way, the Press Clause possibly promises to restore the delicate balance between government and individual power to "something closer to what the Founding Fathers intended."[329]

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[323] See Apple's Motion to Vacate, dated 32 February 25, 2016. ED No. CM 16-10 (SP), https://www.justsecurity.org/wp-content/uploads/2016/02/apple.motiontovacate.pdf.

[324] *See* Eric Geller, *The Rise of the New Crypto War*, DAILY DOT (July 10, 2015), http://www.dailydot.com/politics/encryption-crypto-war-james-comey-fbi-privacy/.

[325] The court never reached the First Amendment question because the government dropped the case before the court issued an opinion.

[326] ABELSON, *supra* note 226, at 10.

[327] *Encryption Technology and Possible U.S. Policy Responses: Hearing Before the U.S. H.R. Subcomm. on Info. Tech. of the Comm. on Oversight and Gov't Reform* (2015) (statement of Kevin S. Bankston) at 11, http://oversight.house.gov/wp-content/uploads/2015/04/4-29-2015-IT-Subcommittee-Hearing-on-Encryption-Bankst on.pdf.

[328] *Id*.

[329] *Id*.

1. Press Clause is Descriptively Accurate at Protecting Encryption as a Tool

While the Speech Clause is effective at protecting encryption[330] the Press Clause provides a significantly more descriptive justification because of the tool's similarities between to the printing press.[331] To begin, "[a] printing press is a device for applying pressure to an inked surface resting upon a print medium (such as paper or cloth), thereby transferring the ink."[332] More generally, however, the invention of the printing press was revolutionary because it allowed individuals to control the spread of information by enabling speedy, copious, and selective publication. This ability for citizen circulation of information, or the "democratization of knowledge" led to a substantial increase in human knowledge that spawned a fundamental change in human society, later named the Printing Revolution, that started soon after Gutenburg's invention in 1440.[333]

Encryption, like the printing press, is a modern tool that not only controls the flow of information, but also protects individuals from government interference. Its code works as a tool or "technology"[334] by "encoding of information called "plaintext," into unreadable form, termed "ciphertext."[335] The tool commonly allows academics, journalists, activists, and others to communicate with each other freely by "prevent[ing] anyone other than the user or intended recipient from reading private information."[336] As a recent UN report has described, encryption tools are "protected because of the critical role they can play in securing" the ability for

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[330] This is especially the case given the Speech Clause's reputation as the "lodestar of our Constitution." W. Va. State Bd. of Educ. v. Barnette, 319 U.S. 624, 639 (1943). In recent years, particularly following *Citizens United*, the Clause has become very effective at providing protection for actions that go beyond traditional notions of speech.

[331] *See generally* WARREN CHAPPELL & ROBERT BRINGHUSRT, A SHORT HISTORY OF THE PRINTED WORD (2000) (discussing the history of printing).

[332] Wikipedia, *Printing Press*, https://en.wikipedia/wiki/Printing_press (last visited Feb. 25, 2017).

[333] *Id*.

[334] *Hearing before Senate Judiciary Comm.'s Subcomm. on Constitution, Federalism and Property Rights* (1998) (statement of Cindy Cohn, Lead Counsel in *Bernstein*), https://www.eff.org/files/filenode/bernstein/19980317_cohn_testimony.html ("From a legal standpoint, the *Bernstein* case is not complex, nor does it break any dramatic new ground. It simply asks the courts to recognize that the First Amendment extends to science on the Internet, just as it does to science on paper and in the classroom. For it is this scientific freedom which has allowed us to even have an Internet, as well as the many other technologies which we enjoy today.").

[335] Duong, *supra* note 205, at 324.

[336] *Id*.

individuals to control the exchange of knowledge "without arbitrary and unlawful interference or attacks."[337]

Seemingly, one difficulty in drawing the analogy between encryption and the printing press arises from the tools' two different ways of promoting information. While the printing press appears to make information more easily visible to the public and encryption appears to conceal it,[338] that characterization is overly simplistic. Like encryption, the printing press has historically helped publishers review and edit information before selectively deciding what information to release into the public domain, and what information to keep private. John Milton's own description of the printing press highlighted its significance as the "power of determining . . . what ought to be published and what [ought] to be *suppressed*."[339] When the Crown confiscated John Wilkes' materials, for example, many of the seized documents he had printed on his press were unpublished materials he had editorially decided to keep private, and not to share with the public.[340] Similarly, Max Frankel described in his aforementioned affidavit how in the 1970s, newspapers used printing presses to selectively publish certain stories for public consumption.[341] In the modern day, publications continue to use printing tools, such as websites, to choose what to share and what to censor. For example, only key texts from the Snowden leaks and the Panama Papers were published from the thousands of pages made available to journalists.[342] Editors choose to elevate certain points but not publishing others.

Encryption has largely the same effect, especially given the copious amount of information in our society. Today the public domain is oversaturated with data. With the click of a button, news articles, documents, and other information are easily made public in seconds. By encrypting certain information and removing those messages from the public domain, individuals are able to highlight the information

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[337] KAYE, *supra* note 200, at 7.

[338] A. Michael Froomkin, *The Metaphor is the Key: Cryptography, the Clipper Chip, and the Constitution*, 143 U. PA. L. REV. 709, 712 (1995) ("Without the ability to keep secrets, individuals lose the capacity to distinguish themselves from others, to maintain independent lives, to be complete and autonomous persons . . . This does not mean that a person actually has to keep secrets to be autonomous, just that she must possess the *ability* to do so. The ability to keep secrets implies the ability to disclose secrets selectively, and so the capacity for selective disclosure at one's own discretion is important to individual autonomy as well.").

[339] MILTON, *supra* note 53 (emphasis added).

[340] *See* Mellen, *supra* note 69.

[341] *See* Frankel Affidavit, *supra* note 145.

[342] Frank Jordans, *German Newspaper that First Obtained the Panama Papers Says It Won't Publish All the Files*, BUSINESS INSIDER (Apr. 7, 2016), http://www.businessinsider.com/some-panama-papers-files-wont-be-published-2016-4.

which *is* public in the growing sea of data. By sending documents over encrypted channels, for example, and then publishing particular sections, rather than merely dumping the data on the Internet, encryption allows individuals to bring to the surface only those points they wish to share with readers. As Professor Froomkin discusses in his seminal article about encryption, *The Metaphor is Key*, "[t]he ability to keep secrets implies the ability to disclose secrets selectively."[343] For these reasons, just as the printing press before it, encryption has become an effective, powerful, and widespread tool for information sharing, used in "commercial, political, and personal life in a surprising number of ways."[344]

2. Press Clause Underscores the Structural Role of Encryption

Practically, encryption is used to ensure a zone of privacy for individuals where one can share information securely. Encryption has become imperative for providing these spaces as technological realms are increasingly surveilled by governments or hacked by private parties. Indeed, since the Snowden revelations, journalists have increasingly turned to in-person communication to lower the risk of interference. As Professor Froomkin explains, encryption "is important to individual autonomy" in a landscape where spheres of privacy can easily be intruded on by government and other actors.[345]

It is this structural aspect of encryption that poses a threat to government much more than its speech characteristics. Law enforcement is concerned over the physical barrier encryption creates—the going dark effect—not its written code. Therefore, just like the British Crown's "despotick" regulations over the private use of the printing press in the eighteenth century, today members of the United States government have tried to impose restraints on private forms of encryption rather than limiting the writing of code itself.[346] During the course of the *Apple* litigation, *amici* explained this tension by stating,[347] "[t]his case is about giving the government the

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[343] Froomkin, *supra* note 339, at 712.

[344] *Id*. at 718.

[345] Froomkin, *supra* note 339, at 713.

[346] As explained above, many instances of the government regulating encryption in the early 1990s made individuals concerned about their safety. For example, in 1993, Philip Zimmermann, the inventor of PGP, was visited by U.S. Customs Service agents "who were investigating a complaint from RSA Data Security alleging the theft and international shipment of their intellectual property. The seed of this . . . inquiry quickly bloomed into an investigation of possible ITAR violations by a U.S. Attorney. For years, Zimmermann remained under an investigatory cloud but was never indicted." Vagle, *supra* note 202, at 114.

[347] Laura Hautala, *Cybersecurity Pros Fear Government Overreach in iPhone Fight*, CNET.COM, Mar. 3, 2016, https://www.cnet.com/news/apple-versus-fbi-iphone-encryption-cybersecurity-experts-fear-government-overreach/; Steve Tobak, *Why Apple's Tim Cook Is Right*

power to conscript technology providers[,] to create new versions of their products intended solely to defeat the security features designed to safeguard their users."[348] After the government backed down from the case, FBI director James Comey did not relent.[349] Comey warned "the balance we have long struck is fundamentally challenged and changed,"[350] and once more asserted going dark effect arguments.[351] More recently, incidents from the Trump Administration have shown similar dislike for encrypted messaging,[352] especially as government leaks increase.

Unlike the Speech Clause, the Press Clause was created to address this precise tension and strike a balance in favor of the citizen. The Framers' intended the Clause to create a Constitutional protection for enabling unencumbered spaces of *private* communication, free from government surveillance and retribution. Or as Justice Douglas stated, the Clause was designed "to take Government off the backs of

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on Encryption, FOXBUSINESS.COM, Feb. 19, 2016, http://www.foxbusiness.com/features/2016/02/19/why-apples-tim-cook-is-right-on-encryption.html; John Eden, *Why Apple is Right to Resist the FBI*, TECHDIRT.COM, Mar. 13, 2016, https://techcrunch.com/2016/03/13/why-apple-is-right-to-resist-the-fbi/.

[348] Brief for Center for Democracy & Technology as Amicus Curiae, Motion to Vacate and In Opposition to Government's Motion to Compel Assistance (2016) (No. CM 16–10 (SP)), http://images.apple.com/pr/pdf/Center_for_Democracy_and_Technology.pdf.

[349] Kevin Johnson, *FBI Director Reflects on Apple Dispute*, USA TODAY (Apr. 12, 2016, 6:36 PM), *http://usatoday.com/story/news/politics/2016/04/12/james-comey-fbi-apple/82940460/*. Comey stated to the public that "Apple is not a demon" and that he hoped the "people don't perceive the FBI as a demon." *Id.*

[350] *Id.*

[351] Eric Tucker, *Comey: FBI Wants 'Adult Conversation' on Device Encryption*, ASSOCIATED PRESS (Aug. 20, 2016, 9:10 PM), http://bigstory.ap.org/article/7d57f576e3f74b6ca4cd3436fbebf160/comey-fbi-wants-adult-conversation-device-encryption (quoting Comey stating, "Widespread encryption built into smartphones is 'making more and more of the room that we are charged to investigate dark.'"); Tom Winter, Tracy O'Connor and Pete Williams, *Comey: FBI Couldn't Access Hundreds of Devices Because of Encryption*, NBC NEWS (Mar. 8, 2017), http://www.nbcnews.com/news/us-news/comey-fbi-couldn-t-access-hundreds-devices-because-encryption-n730646 (quoting Comey saying, "Picture a room. There's always been a corner of the room that was dark to us, where nation-states and the most sophisticated criminals would find ways to encrypt their data.").

[352] After the Trump Administration launched as investigation into the increased leaks coming from the White House, the White House summoned their staff to force deletion of encryption apps such as Confide and Signal from staffers' phones. Cory Doctorow, *Trump vs. Leaks: Spicer's Staff Forced to Undergo "Phone Searches" and Delete Privacy Apps*, BOINGBOING (Feb. 27, 2017), http://boingboing.net/2017/02/27/trump-vs-leaks-spicers-staf.html; Lily Hay Newman, *Encryption Apps Help White House Staffers Leak-And Maybe Break the Law*, WIRED (Feb. 15, 2017), https://www.wired.com/2017/02/white-house-encryption-confide-app/

people.[353] Just as government imposing prior restraints on newspapers for publishing confidential ideas is deemed incorrect under the Press Clause,[354] "law enforcement and intelligence agencies [should not] have the capability to penetrate [citizens'] secrets at will."[355]

3. The Press Clause is Especially Apt at Protecting Encryption Even if Countervailing National Security Exist

The Press Clause is especially potent because its protections apply even where countervailing national security interests exist. As previously explained, this tenet was established in *New York Times Co. v. United States*. There, the Court dismissed the government's argument that national security concerns alone could justify thwarting a newspaper from publication. Indeed, "[e]ven though the case has nine separate written opinions, the majority of [] Justices [still] found that a national security interest, without more, was too amorphous a rationale to abrogate the protections of the First Amendment" and the Press Clause in particular.[356]

Justice Black's opinion in *New York Times* most clearly explains this rationale. "[T]he press must be left free[,]" no matter what, he argued, because the press exists "[to] bare the secrets of government."[357] The Press Clause was intended "to serve the governed, not the governors" Black wrote.[358] The idea behind this absolutism, Justice Black explained, originated from the belief that the greater the threat to national security, the greater the need to preserve the right to a free press because "security" is often used by government as a decoy, "a broad, vague generality."[359] Its "contours," he wrote, "should not be invoked to abrogate the fundamental law embodied in the First Amendment."[360] And "[i]f the government had the inherent power to halt the free flow of information and ideas based on national security interests alone, it could wipe out the First Amendment and destroy the fundamental liberty of the very people the government hopes to make secure."[361]

Although Justice Black's position appears extreme, he was not alone in his reasoning. Justice Stewart, for instance, stated that despite the government's claims,

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[353] Columbia Broadcasting Sys., Inc. v. Democratic Nat'1 Comm., 412 U.S. 94, 162 (1973) (Douglas, J., concurring); *see also* Glancy, *supra* note 171, at 1049.

[354] Froomkin, *supra* note 339, at 712; *see New York Times Co.*, 403 U.S. at 713.

[355] Froomkin, *supra* note 339, at 713.

[356] Crain, *supra* note 217, at 894.

[357] *Id*.

[358] New York Times Co. v. United States, 403 U.S. 717 (1971) (Black, J., concurring).

[359] *Id.*

[360] *Id.*

[361] Crain, *supra* note 217, at 894.

national security alone could not justify halting publication. Justice Stewart explained that if publishing the Pentagon Papers would not "result in direct, immediate, and irreparable damage to our Nation or its people" then prior restraint was not justified.[362] This standard set a high bar for government restraint. Collectively, "[t]he Supreme Court decision in the Pentagon Papers case was a clear defeat for government claims of national security and an equally clear victory for freedom of the press."[363] Similarly, only in very few cases where "direct, immediate, and irreparable damage to our Nation or its people" could result from encryption, would the tool not be protected.

4. The Press Clause Mirrors Practices of Founding Fathers

Although there is no record of encryption being intentionally protected as a "tool" under the Press Clause or elsewhere in the founding documents, we may also consider the practices of the Founding Fathers to determine whether they may have considered protecting it.

Just as many of the Founders have been cited for their uses of the printing press,[364] examining the practices of the Founders from the time of the Revolution to the adoption of the United States Constitution reveals many instances where the Founders used secret communication tools similar to encryption. For instance, the "one if by land, two if by sea" code employed by Paul Revere warned of British forces by displaying lanterns during the battles at Lexington and Concord. In addition to surreptitious codes and signals, the Founders also used ciphers. As John Fraser wrote, "[f]rom the beginnings of the American Revolution in 1775 until the adoption of the United States Constitution, Americans used codes, ciphers and other secret writings to foment, support, and carry to completion a rebellion against the British government."[365] Fraser explains, "America was born of revolutionary conspiracy . . . as rebels and conspirators, the young nation's leaders . . . turned to codes and ciphers in an effort to preserve the confidentiality of their communications."[366]

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[362] *New York Times Co.*, 403 U.S. at 730 (Stewart, J., concurring).

[363] Jerome A. Barron, *The Pentagon Papers Case and the Wikileaks Controversy: National Security and the First Amendment*, 1 WAKE FOREST J. OF LAW & POL'Y 47, 49 (2011).

[364] West, *The 'Press' Then & Now*, *supra* note 12, at 79.

[365] Fraser, *supra* note 204, at 21.

[366] *Id*. at 21 n.63 (citing RALPH E. WEBER, MASKED DISPATCHES CRYPTOGRAMS AND CRYPTOLOGY IN AMERICAN HISTORY 1775-1900, at 5-6 n.6. (1993)). These practices were fueled by the Crown's habit of opening and reading private mail. Similarly, the Continental Congress ordered its Committee handling foreign correspondence to use "cyphers." For instance, the

These tools were in no way reserved for select communications. Many of the Founders used encryption in their daily life, including Thomas Jefferson, John Adams,[367] James Madison, John Jay, and Benjamin Harrison.[368] John Adams famously used a cipher to write letters to his wife, Abigail Adams, as well as in his official business correspondence.[369] Madison used ciphers for private correspondence, as well as to discuss actions with fellow actors in the Revolution, including Thomas Jefferson. In fact, "[p]rior to the adoption of the Bill of Rights, Madison and Jefferson . . . used a 1700-word code for confidential discussion of sensitive personal and political issues."[370] In a letter written to Madison dated August 28, 1789, Jefferson's "comments on the proposed First Amendment is partially enciphered."[371] These comments would later become the text of the First Amendment.[372]

The Founders did not merely use these tools, but developed them themselves. Thomas Jefferson and Benjamin Franklin, perhaps best known for their use of the printing press, are lesser known for their invention of encryption tools.[373] In 1764, Jefferson "suggested to John Page the use of a hundred-year-old English text (Shelton's *Tachygraphia*) to encode their letters."[374] Jefferson also invented a wheel cipher consisting of twenty-six cylindrical wooden pieces on an iron spindle.[375]

Committee of Secret Correspondence, which later rebuked the Stamp Act of 1765 became a powerful group opposing the Crown. *Id*.

[367] *Id.* at 23 (stating John and Abigail Adams, his wife, used a cipher provided by James Lovell for family correspondence while John Adams was away from home).

[368] *ACLU Submission*, *supra* note 105, at 14.

[369] *See generally* DAVID KAHN, THE CODE-BREAKERS: THE COMPREHENSIVE HISTORY OF SECRET COMMUNICATION FROM ANCIENT TIMES TO THE INTERNET 181 (1996); WEBER, *supra* note 367.

[370] Fraser, *supra* note 204, at 44.

[371] *Id.* at 43.

[372] *Id*.

[373] *Id.* at 70 ("By protecting his communications and raising a shield of privacy around his intentions and statements, Jefferson protected himself against government and private interlopers. Relative to the government's abilities in 1796 (which were comparatively weak) Jefferson was able to maintain control over the message and the audience. It is simply implausible to suggest that Jefferson, Madison, Washington, Adams, Monroe *et al.* would have been willing to surrender the protection against government that ciphers provided, because the government found it expensive or impossible to crack the codes."); *see also* ANN M. LUCAS, THOMAS JEFFERSON FOUNDATION, THOMAS JEFFERSON'S WHEEL CIPHER (Sept. 1995).

[374] Fraser, *supra* note 204, at 20.

[375] The cipher was subsequently repurposed for government use during World War II.

Similarly, Benjamin Franklin, a printer,[376] also created a variety of encryption tools in his print shop. In 1724, Franklin moved to London to work as a printer in the firm of John Watts before returning to Philadelphia in 1726. By 1730, Franklin had set up his own printing business and published a newspaper. On that same press, Franklin printed one of the earliest American texts on the uses of codes, ciphers, and secret writing.[377] Subsequently, Franklin must have become even more interested in encryption as he began using a myriad of codes and signals himself.[378] For instance, Franklin's international correspondence on behalf of the Continental Congress was often done through cipher. By 1781, Franklin had invented a "homophonic substitution cypher" while representing the United States in Paris.

Relatedly, many of the Founders also published anonymously. "[A]nonymity" for the Framers and their contemporaries "was the deciding factor between whether their writings would produce a social exchange or a personal beating."[379] The Founders followed the example of their predecessors, such as Junius and Father Candor who also wrote anonymously. Indeed, some of the most canonical essays that shaped the history of the republic, such as the *Federalist Papers* "were published under fictitious names, such as Publius, Americanus, and Caesar."[380]

The Supreme Court recently underscored the value of anonymous speech in *McIntyre v. Ohio Elections Committee*.[381] The case involved Margaret McIntyre, a citizen of Ohio who had distributed leaflets—some of which were not signed—at several public meetings. Under an Ohio ordinance, McIntyre was found guilty for anonymous pamphleteering. McIntyre appealed. Reviewing the case, the Supreme Court briefly canvassed the history of anonymous literature from the time of the founding, including the Federalist Papers and other American Revolution-era writings. Ultimately, the Court found "[u]nder our Constitution, anonymous pamphleteering is not a pernicious, fraudulent practice, but an honorable tradition of advocacy and dissent."[382] "Anonymity" it continued, "is a shield from the tyranny of

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[376] *See* Franklin Common Press, SMITHSONIAN, http://americanhistory.si.edu/collections/search/object/nmah_882271.

[377] *Id.*

[378] *Id.*

[379] *ACLU Submission*, *supra* note 105, at 15 (citing Jonathan Turley, *Registering Publius: The Supreme Court and the Right to Anonymity*, 2002 CATO SUP. CT. REV. 57, 59 (2002)).

[380] *Id*.

[381] McIntyre v. Ohio Elections Comm'n., 514 U.S. 334 (1995); *see also* Lee Tien, *Who's Afraid of Anonymous Speech? McIntyre and the Internet*, 75 OR. L. REV. 117 (1996); Richard K. Norton, McIntyre v. Ohio Elections Commission*: Defining the Right to Engage In Anonymous Political Speech*, 74 N.C. L. REV. 553 (1996); Erika King, Comment*, Anonymous Campaign Literature and the First Amendmen*t, 21 N.C. CENT. L.J. 144 (1995).

[382] *McIntyre*, 514 U.S. at 357.

the majority."[383] Recognizing that secret messages "sometimes have unpalatable consequences," the Court still stated that in general, "our society accords greater weight to the value of free speech than to the dangers of its misuse."[384]

Although the majority's opinion in *McIntyre* is on its own a strong support for anonymous speech, Justice Thomas' concurring opinion ties the Founder's protection of anonymous speech to encryption and the Press Clause. Finding there is no record of "discussions of anonymous political expression either in the First Congress or in the state ratifying conventions," Justice Thomas turns his attention to the Founders' own behavior.[385] He observes the Founders' "universal practice of publishing anonymous articles and pamphlets, [indicating] that the Framers shared the belief that such activity was firmly part of the freedom of the press."[386] Justice Thomas proceeds to mention Thomas Jefferson's use of encryption "was a partial response to a broad need for secrecy."[387] Highlighting the Founder's use of tools as a necessary behavior of secrecy, Justice Thomas opens yet another channel for protection under the Press Clause by relying on the Founders' own ubiquitous practices.

CONCLUSION

The question of whether encryption should be protected under the Constitution is arguably more pertinent than ever before. Moving forward, we should consider the normative and descriptive strengths of the Press Clause. While Speech Clause holds well-accepted precedent, the speech doctrine is both normatively and descriptively complicated. Although the Press Clause presents its own challenges, unlike the Speech Clause, it highlights the fundamental point that encryption is an *instrument* used to empower citizens to candidly share information. Like the printing press, the computer, and the Internet, modern day encryption is a tool that enables robust and trusted conversation. This is especially true as increasing government surveillance intrudes on more private squares of communication. The Press Clause highlights that encryption enables channels for private and unseen communication that are altogether quickly evaporating from our saturated ecosystem of information. In this modern world of data, tools like encryption keep certain channels of conversation outside the view of government and other private

[383] *Id*.
[384] *Id.* at 334.
[385] *Id*. at 360 (Thomas, J., concurring).
[386] *Id.*
[387] *Id*. at 367.

individuals who threaten our ability to develop thoughts and ideas, and the Press Clause stands as a barrier to such intrusion.