3. *Frankenstein* and the Reinvention of “Technology”

The modern discourse of technology has a Romantic history: the connotations, inflections, figurative uses, and ideological assumptions that accrete around the strictly denotative definition of the word and that supplement its usage and iterations, especially in colloquial speech, take shape as a specific cultural effect of Mary Shelley’s novel *Frankenstein*, first published in 1818 and then in a substantially revised edition in 1831. To contextualize how Canadian adaptations of *Frankenstein* have amplified and globalized a particular set of usages and connotations as the prevailing modern sense of technology in everyday language and discourse, this chapter explores how Shelley’s novel redefined—and, in the process, effectively reinvented—the word “technology” in its modern sense. To argue this, I will challenge two conventional premises about the relationship between *Frankenstein* and technology discourse. Understanding these premises means outlining the history of technology’s meanings, after which we will look closely at *Frankenstein*’s plot and details of form. Ultimately I contend that the novel, read together with a representative selection of period responses to it and related articulations of technology, indelibly marks the word’s modern reinvention with a set of connected tropes. Significantly, *Frankenstein* does not explicitly use the word technology (just as it does not name its antagonist); but through the creature’s characterization, the novel became a literary “threshold of epistemologization” (Foucault [1969] 1972, 187), a textual battery that charged the *epistème* of Romantic science and culture
to generate the modern discourse of technology. First arranged to characterize the nameless nemesis who haunts Victor Frankenstein, these tropes soon coalesce around the nascent discourse of “technology” to name the social assemblage that defines—and haunts—modernity.

In the discursive history of technology and in the literature on the relationship between Frankenstein and technology, two premises persist as commonplaces, in sources as venerable as the Oxford English Dictionary and as recent as essays on technology by Scott McQuire and Andrew Ross, written in the cultural studies tradition of “keyword” reading, inaugurated by Raymond Williams (1983). In such sources, old and new, accounts of the provenance of technology suggest that it was in the late nineteenth century that, according to the OED Online (s.v., “technology”), the word attained its modern redefinition to mean, in general, tools and machines, techniques and systems for their use, or combinations thereof; or, as the OED puts it, “the mechanical arts and applied sciences collectively.” However, a close reading of Frankenstein, its allusive uses, and its more extensive adaptations in the period suggests that this modern meaning emerged much earlier in the nineteenth century.

Which brings me to the second premise this work questions: that while Frankenstein is widely read as “the first and most enduring symbol of modern technology” (Tropp, quoted in Baldick 1987, 7), its relationship to the discourse of technology is constructed retrospectively, as though this definitively modern discourse emerged later, and independently of Frankenstein, in popular culture. If technology has popularized a certain interpretation of Frankenstein, it is because Frankenstein itself conditioned the modern redefinition of technology as such in the period of its publication, early reception, and popularization.

**Technology: Defining and Accounting for a Modern Keyword**

To get specific, then, about what is meant in this study by “the modern discourse of technology,” the OED provides a natural point of departure. The entry for the word technology includes five distinct definitions, the fourth of which encompasses three distinct variations, for a total of seven different definitions of the word:

1. A discourse or treatise on an art or arts; *esp.* (in later use) a treatise on a practical art or craft. . . .
2. The terminology of a particular art or subject; technical language or nomenclature. . . .

3. The systematic treatment of grammar. . . .

4. a. The branch of knowledge dealing with the mechanical arts and applied sciences; the study of this. . . .

4. b. The application of such knowledge for practical purposes, esp. in industry, manufacturing, etc.; the sphere of activity concerned with this; the mechanical arts and applied sciences collectively. . . .

4. c. The product of such application; technological knowledge or know-how; a technological process, method, or technique. Also: machinery, equipment, etc., developed from the practical application of scientific and technical knowledge; an example of this. Also in extended use. . . .

5. A particular practical or industrial art; a branch of the mechanical arts or applied sciences; a technological discipline.

The first three of these definitions are obsolete. They represent the premodern meanings of the word derived from antiquity, occurring between the early seventeenth century and the mid-nineteenth, by which time the word was assuming its modern meanings—the fourth and fifth ones here. The earlier, “eighteenth-century use of the word ‘technology’ placed the emphasis on ‘art’” (Wright 2005, para. 3), and it is important to note that “art” and “the arts” were somewhat more inclusively defined in eighteenth-century and earlier usage and encompassed engineering and agricultural practices. The fourth, tripartite definition (4a, 4b, and 4c) begins to emerge in the late eighteenth century, initially as a redefined usage that was imported from German. As E. A. W. von Zimmerman wrote—in English—in 1787, “A new branch of scientific knowledge, viz. technology, or the theory and accurate description of useful arts and manufactures, was much cultivated in Germany” (1787, iii). Johann Beckmann (1739–1811) was likely one of the German professors to whom von Zimmerman alludes, and his account shows that it is an erroneous oversimplification to suggest, as Kelly does, that Beckmann, in his Guide to Technology (Anleitung zur Technologie), was merely “resurrecting that forgotten Greek word” to give “a name to what we do” (2011, 8). In the first place, the word had not been forgotten, as documented by the first three OED meanings; in the second, the emergent German usage of technology emphasized the “-logy,” or study—it introduced the fourth meaning listed above, the study of mechanical arts. Kelly's
use of technology “to mean a specific technology, such as radar,” that is, something that “can be patented” (2011, 12)—a meaning he misattributes to Beckmann—illustrates not the fourth but the next to last meaning on the OED’s list: “a technological process” or simply “machinery, equipment.”

It might seem like semantic hairsplitting, but what is significant here is that technology’s “machinery” meaning (4c) has become the dominant meaning of technology in colloquial speech, policy, and business, where it is often conjoined or conflated with the word’s “collective” meaning (4b), as in a conventional phrase like “invest in technology.” The OED’s earliest citation of the “collective activity” definition (4b) is Jacob Bigelow’s 1829 book Elements of Technology (on which more later in this chapter), and the dictionary’s earliest citations for the “product” meaning (4c) do not occur until the 1890s. On this account, technology’s meaning has shifted from the study of arts, to the systematic application of production techniques, to the products used in and resulting from such application. What concerns us is not the coinage of technology but its modern reinvention. The challenge for historicizing technology, today, results from its ubiquity—and consequent slipperiness.

Cultural studies “keywords” essays have tended to reproduce the OED’s historical account of technology’s provenance and modernization, which dates the emergence of the word’s “machinery” meaning to the later nineteenth century. “It was mainly in mC19 [the mid-nineteenth century] that technology became fully specialized to the ‘practical arts,’” writes Williams; this specialization—that is, definition 4b—paired with “the newly specialized sense of science” to “open the way to a familiar modern distinction between knowledge (science) and its practical application (technology)” —that is, definition 4c (1983, 315), which Williams implies in this phrase emerged sometime after midcentury. Williams, too, points out the vagueness of the modern word’s meaning, observing that “technical—matters of practical construction—and technological—[are] often used in the same sense, but with the residual sense (in logy) of systematic treatment” (316). In the 2005 adaptation of Williams, New Keywords, Andrew Ross contextualizes the word’s modernization as a reflection of “the rise of industrialization” and echoes the OED’s account: “By the lC19 [late nineteenth-century] . . . technology was increasingly used to refer to machinery itself” (2005, 342–43). Ross follows this account by discussing Marx’s perspective of
“technology as a weapon of class war” (2005, 343); however, he fails to mention that Marx—like Shelley—did not use the word technology itself.

Scott McQuire does point this out, in a more recent “keyword” article, which surveys the “major shifts in thinking about technology” in modernity (2006, 253). He echoes the OED in identifying “the mid-nineteenth century” as the period when “the meaning of ‘technology’ . . . narrowed to the practical arts” and cites Marx’s reference to the bourgeois creation of “colossal productive forces” as evidence of the centrality of technology to Marx’s historical materialism (255). McQuire reads in Marx’s work a “relatively neutral” idea of technology that establishes the technological instrumentalism that dominated technology discourse until World War II, when three new paradigms emerged: first, a cybernetic paradigm that followed Norbert Weiner and pointed to the now-hegemonic technological imperative; second, a critical paradigm of technological determinism, in which technology is reified domination, represented by thinkers like Heidegger, Ellul, McLuhan, and Paul Virilio, who equates technology with catastrophe; and, third, a social constructivist line of thinking about technology represented by thinkers like Walter Benjamin and Donna Haraway (259–60).

McQuire’s reading of Marx’s “relatively neutral” conception of technology argues that it carries a telling, unresolved ambiguity. He attributes instrumentalist thinking to Marx’s general division of productive forces from the relations of production, but he also suggests that Marx’s ambiguity over “colossal productive forces” supplements instrumentalism, shading it with deterministic overtones. On one hand, Marx posits a kind of “mechanical materialism” that attributes social changes to “new productive forces.” But, on the other, Marx’s later theory of the commodity fetish detaches these forces from their social control; McQuire explains that, for Marx, “capital instruments” are “external to human effort, and therefore outside social control,” giving them “an enigmatic appearance of autonomy”—a life of their own, as it were (2006, 256). In these respects, Marx anticipates one line of McLuhan’s thinking; in the first chapter of the Grundrisse ([1857] 1973), Marx makes observations about the technological basis (and bias) of specific cultural forms: “Is Achilles possible with powder and lead?” he asks. “Or the Iliad with the printing press, not to mention the printing machine?” ([1857] 1983). While McQuire looks forward from Marx’s ideas on machine production to their influence on future thinkers, a look back from these ideas to their cultural sources soon illuminates
the gruesome lineaments of a familiar factitious figure that accounts for their ambiguity. Baldick (1987, 130) features Marx prominently among the nineteenth-century writers who adapted *Frankenstein* for representations of capital and class, as in Marx’s above-quoted image of capital as “dead labour” preying vampirically on the living ([1867] 1976, 342).

These keyword essays’ surveys of the transformations of technology discourse since the mid- and late nineteenth century thus help us to focus further on the foundations of this discourse in the early nineteenth century—in which it takes shape as a Frankenpheme unto itself. *Frankenstein* has been conventionally retrofitted into this discursive history. Echoing William Hazlitt’s statement on the Romantic period, Darin Barney calls *Frankenstein* an allegory of “the technological spirit of the modern age” (2000, 6). Laura Kranzler writes that *Frankenstein* seems almost uncannily to anticipate “the technological innovations of the twentieth century”; she suggests, more specifically, that “the problematics of technological development and application are initially codified in Shelley’s work” (1988, 42, 43). This suggestion is worth taking at its word, and worth reading for the historical evidence between its lines. To make this case, we’ll turn first to the novel itself, to see how the text works to reinvent technology—not *avant la lettre*, technically, but in the very moment of the word’s English reanimation.

“The instrument of future mischief”

I want to suggest that *Frankenstein* exerts its own interpretive control over technology as a term whose meaning changed not *after* but *during* the novel’s period. A look at the text, and period responses to it, shows how technology began circulating in its modern sense as a Frankenpheme. Looking first at the novel, we find a series of tropes that show how the language of the text—together with its plot of uncontrolled research and monstrous result—conditions the modern discourse of technology. These tropes are *utility*, *supplementarity*, *contagion*, *shock*, and *revolution*.

*Utility:* The rhetoric of utility permeates the text, and Victor Frankenstein, like his interlocutor Walton, sometimes sounds like a parody of Jeremy Bentham. *Frankenstein* engages with Bentham and his philosophy of Utilitarianism perhaps most clearly in its exploitation of the then-dubious reputation of medical doctors, who traded with grave-robbers to obtain cadavers. Meanwhile, Bentham worked during the period to legitimize
dissection—with legislation, and, ultimately, with the donation of his own body as a display specimen for University College, to promote the “further uses of the dead to the living” (quoted in Morton 2002, 86). Bentham still enjoys a vaguely ghoulish afterlife of his own as the infamous “auto-icon,” part taxidermy and part wax figure, at rest in a glass case on the University College grounds. In the novel, Shelley plays on public fears about Victor Frankenstein’s real-life counterparts by narrating how he supplies his “workshop of filthy creation” with “bones from charnel-houses” and “materials” from “the dissecting room and the slaughter-house” ([1831] 2000, 58–59). Like Bentham, Victor pursues his research with utilitarian idealism, buoyed by “visions of extensive usefulness” (46) and thoughts of “the improvement which every day takes place in science and mechanics” (58). But the story renders these visions ultimately ironic. Victor advises Walton against his Arctic project, with ambivalent references to use and utility. He initially doubts whether “the relation of my disasters will be useful to you” (39). Toward the story’s end, he reflects that “I deemed it criminal to throw away in useless grief those talents that might be useful to my fellow-creatures”; approaching death, he strangely rationalizes his fatal pursuit of the monster by musing that “if I were engaged in any high undertaking or design, fraught with extensive utility to my fellow-creatures, then could I live to fulfil it” (180–81). Walton, for his part, first foreshadows Victor’s “visions of usefulness,” by imagining “the inestimable benefit which I shall confer on all mankind” (28), and finally echoes Victor’s failure, as he abandons his own “hopes of utility and glory” (183).

Supplementarity: As these passages show, Shelley applies something like Bentham’s “greatest happiness principle” to the trope of Utility. Walton and Victor both envision the “extension” of the “utility” of their projects for all humankind. This universalization of “extensive utility” establishes important spatial and relational conditions for the modern discourse of technology: spatial in its globalized scope, which Canadian adaptations of the text will more fully realize; and relational in its difference from and identification with humankind. The modern discourse of technology is nothing if not a discourse of uncanny and unstable difference from and opposition to the ontological category of the human. As McQuire writes, “in every historical iteration . . . defining the technological not only activates the border between nature and culture, but goes to the heart of what it means to be human” (2006, 255).
For a historical example of such defining of the technological, Benjamin Franklin defined the human as a “tool-making animal” (quoted in Weber [1910] 2005, 33), thus connoting technology’s status as the interdependent Other of humanity. Similarly, Jürgen Habermas defines technology as a “‘project’ of the human species as a whole” (1970, 87), thus totalizing the categories of technology and the human as a binary pair in which the former term is subordinated to the latter. For a more contemporary example, a recent Globe & Mail review of two books (on genetics and digital media, respectively) leads with the claim that “modern technology is not only changing our day-to-day existence but what it means to be human” and ends with the suggestion that “technology is who we are” (Alang 2017, R12). This simultaneous opposition and intimacy between technology and humanity also informs McLuhan’s famous definition of technologies as “extensions of man” ([1964] 2003), extensions that sometimes act as prosthetics—and other times as replacements. “What really makes the novel . . . disturbing,” writes Morton, “is not the creature’s difference from, but his similarity to human beings” (2002, 46). Frankenstein’s creature—both human and “superhuman” (Shelley [1831] 2000, 92), at once dead and alive—becomes a prototypical figure of the modern discourse of technology.

As the creature becomes a dangerous supplement and categorical contrast to humanity, so technology becomes a dangerous but vital supplement to modern capitalism: the extension and replacement of human labour power. Mark Seltzer’s reading of the modern “body-machine complex” theorizes this supplementary character of technology, defining it as both “an emptying out of human agency” and its “extension.” In this “double logic of technology as prosthesis” (1993, 99) emerges the poststructuralist problematic of the supplement (Derrida 1976, 145), with its epistemologically unstable ability to both add (“extend”) and replace (“empty out”).

Contagion: Shelley’s images of contagion relate to those of revolution (see below)—small wonder, given the political climate of conservative fear under which Shelley’s England looked apprehensively, across the channel and among its own people, for signs of the spread of revolutionary feeling and foment. Some of this political apprehension over the infectiousness of revolutionary sympathies finds an allegorical figure in Victor Frankenstein’s reflection on what might take place should he finish making the mate demanded by his creature. The passage establishes a primal scene for the modern discourse of technology—and that of technological risk.
assessment. The scene illustrates the tropes of revolution, contagion, and nonhuman supplementarity; it also inverts the rationale of utility, representing Victor’s vision here as the antithesis of the Utilitarian ethos.

Even if they were to leave Europe, and inhabit the deserts of the new world, yet one of the first results of those sympathies for which the daemon thirsted would be children, and a race of devils would be propagated upon the earth, who might make the very existence of the species of man a condition precarious and full of terror. Had I a right, for my own benefit, to inflict this curse upon everlasting generations? . . . I shuddered to think that future ages might curse me as their pest, whose selfishness had not hesitated to buy its own peace at the price, perhaps, of the existence of the whole human race. ([1831] 2000, 145)

In addition to dramatically mobilizing the tropes discussed thus far, this scene, like the novel’s globe-traversing plot more generally, points to the global context in which Canadian Frankenstein will subsequently, and decisively, position the Frankenpheme of technology in the popular imaginary. Victor’s projected “race of devils” prefigures the way technology in general and certain technologies in particular are represented today: antibacterial products, fossil fuels, genetically modified organisms, nuclear weapons, the Internet. The passage also suggests more than one vector of contagion: Victor imagines his creations engendering pestilence; he also imagines himself the “pest” of a postapocalyptic posterity. Shelley developed this image in the protagonist of her next novel, The Last Man ([1826] 1996): the story of a world wasted by plague, told by its lone survivor.

Frankenstein is further riddled with disease, beyond this scene. Victor shows up in the Arctic in a feverish condition. Scarlet fever ravages his family early in the novel ([1831] 2000, 49), foreshadowing how the creature will plague him and his family. Victor develops a habit of falling ill (or asleep) at highly inopportune moments: right before and after he completes and awakens the creature; while detained in Ireland; and after he finishes telling his tale to Walton, dying bedridden just before the creature catches up with him. This late scene formally augments the creature’s characterization as contagion: like Walton, the reader is shocked finally to meet the creature that has escaped its confinement in a third-hand narrative nested within Victor’s account. The creature’s transgressive mobility between the nested story frames, from third-hand account to first-hand encounter, increases the suspense of the story by imparting an unsettling
semblance of immediacy not unlike a spreading infection: if the ship is no longer safe harbour from the murderous creature, is the reader?

**Shock:** Shock provides the frame of affective reference that unites the preceding four tropes. Shock describes both an extremity of feeling and its nullification: as a verb it describes a surprise blow; as a noun, the “emptying-out of human agency” that responds to such a blow. *Frankenstein* also dramatizes the electrifying sense of shock that is significant both for subsequent adaptations, and for modernizing the meaning and connotations of technology. While Victor’s reference to “the spark of being” that animated his creation is famously ambiguous, the science of galvanism is an equally famous context for the novel, and electricity is mentioned in other scenes that inform both the method and affect of the monster’s creation. An early, foreshadowing anecdote from Victor’s childhood describes “the shock” of lightning that “utterly destroyed” an oak tree, and frames Victor’s account of learning about “that power”—“electricity and galvanism”—which precipitates his own intellectual revolution, the “overthrow” of Agrippa and the alchemists ([1831] 2000, 48).

*Frankenstein* popularizes the electrical valence of shock, and dramatizes shock’s affective charge, sometimes conflating the word’s technological sense and human sensibility. Amidst “remorse and guilt,” Victor reflects that his health “had perhaps never recovered from the first shock it had sustained” ([1831] 2000, 86)—that “first shock” denoting both his research result and his reaction to it. After Clerval’s death, he asks himself rhetorically (and with an ironic sense of his own factitious character): “Of what materials was I made that I could thus resist so many shocks?” (153).

If the creature’s supplementarity prefigures that of technology, shock represents the special affect of technology as supplement. The overthrow of the human by its supplement stages a shocking encounter between a tragic man of feeling, as its apogee, and utilitarian instrumentality, as the absence of affect. As Kranzler remarks, the reason the monster is an “apt metaphor” for “the technological future” is its “divorce from affective responsibility” (1988, 42–43). In countless adaptations since, affect—feeling—has become the characteristic, defining difference between human and machine: recall *Blade Runner’s* Voigt-Kampff test, which screens for empathy to detect which subjects are nonhuman “replicants”; or *Battlestar Galactica*, in which the human characters insistently, repeatedly denigrate the Cylon antagonists as “toasters.”
Revolution: The instability and danger of the creature figure the trope of revolution with which Mary Shelley supplies another modern discursive condition for technology. As has been widely researched, the conflict between Victor and the creature stages a drama of revolution that responds to the French Revolution (Douthwaite 2009, 384)—and to the Luddite revolts (O’Flinn 1986). In his early studies, Victor works through “the overthrow” of “the lords of my imagination” ([1831] 2000, 48). Recollecting when he first “beheld the accomplishment of my toils” (60)—and seeing in it only “catastrophe”—Victor describes the abrupt reversal of his feelings: “dreams that had been my food and pleasant rest for so long a space were now become a hell to me; and the change was so rapid, the overthrow so complete!” (61). While imprisoned in Ireland, he “often sat for hours . . . wishing for some mighty revolution” that would destroy both him and his creation (157).

As Fred Randel argues, “the creature’s trajectory from birth in Ingolstadt to death by fire, amidst Northern ice, is a figure for the history of the French Revolution” (2003, 469). These images of revolution speak to the spirit of Shelley’s age. But they also encode the motion of drastic and disruptive social change that has become integral to representations of technology: from Marx’s “faith in the revolutionary potential of technology” (Ross 2005, 343), to McLuhan’s theories that new media replace or consume old media and that electric media produce social upheaval—on a global scale. Frankenstein looms large in these representations of “the machine that passes from stubbornness to rebellion” (Tenner 1996, 3)—and such representations have their critics and skeptics, too. With reference to Thomas Carlyle’s 1829 essay “Signs of the Times,” Baldick deconstructs the latent fetishism of technology as risk and as revolution: “The technological interpretation of the myth resembles many influential diagnoses of ‘the machine age’ in that its isolation of the machine as the root evil of modern civilisation merely reinforces the very fetishism of mechanical power which it sets out to deplore” (1987, 8). Shelley articulates a profound ambivalence about political revolution both in her fiction and between its editions: whether Shelley seems more sympathetic or antipathetic to the French Revolution can depend on reading textual variants between the 1818 and 1831 editions (Randel 2003, 471). This ambivalence, in turn, conditions the ambivalence of the revolutionary rhetoric that has become commonly attached to technology by instrumentalists and determinists alike, and thus...
it also conditions the ambivalence at the core of the common-sense, instrumentalist meaning of technology itself (as discussed above). In the next chapter, we will take up the representations of “revolutionary technology” at greater length: McLuhan’s oscillation between Luddite conservatism and techno-fetishism exemplifies and further popularizes the perception of technology as revolution.

The connected tropes of utility, supplementarity, contagion, shock, and revolution converge significantly in the repeated claim, made first by the dying Victor ([1831] 2000, 185) and then by his creature, that the latter is an “instrument of future mischief” (188), anticipating the popular sense of technology as an instrument of “future shock,” the phrase from Toffler that we discussed in the introduction. While Frankenstein leaves technology, like its antagonist, unnamed, it supplies a primal scene for redefining the object and affect of technology—not after midcentury, but as early as the 1820s.

Elements of Technology: Frankenphemes in the Early Nineteenth Century

The relays, relations, and resonances uncovered among different textual productions in pursuing the palimpsestic, intertextual distribution of such a diversely received and widely popular text like Frankenstein partake far less of unilateral lines of influence from source to derivation and far more of multilateral networks of “subterranean and invisible diffusion” (Baldick 1987, 9). As Julia Douthwaite writes of discovering a 1790 French novella featuring an automaton maker named Frankenstein—for which case, more so than mine, we might expect to learn of a clear line of direct influence—the measured approach for pursuing such questions of cultural intertextuality “is not to argue for a causal relation, but to show the surprising resemblance” (2009, 381–82). A methodology of juxtaposition can seize on an image of the past in a way that productively illuminates a present crisis, excavating the present’s embedded signification as a contingency of the past that is so seized upon; such is the method of history influentially theorized by Walter Benjamin—his “dialectics at a standstill”—and it is useful to bear in mind here.

For suggestive evidence of Frankenstein’s reinvention of technology discourse in Shelley’s own time, then, we find Frankenphemes of “technology” among the cursory and extensive references to Frankenstein that traversed
the lettered cultures of the Atlantic in the early nineteenth century. We also find Frankenphemes of technology being dramatized and reified in the diverse and hugely popular performance scenes that surrounded and adapted Shelley’s novel and its constellation of current scientific and philosophical ideas. While an established English wariness about technology appears in this period to contrast an emerging American enthusiasm for it (Nye 1994, 54)—Blake’s “dark Satanic mills” versus Whitman’s “body electric”—Frankenphemes of technology and industrialization appear in the work of major writers on both sides of the Atlantic. In the old world, we find them in Carlyle, Dickens (Baldick 1987, 98, 119), and Jane Webb Loudon, as well as in Marx; and, in the new world, in Emerson, Hawthorne (Baldick 1987, 63), and Poe—among numerous others on either shore. In this transatlantic context, three representative articulations of the modern discourse technology, in the 1820s and 1830s, point to its Frankensteinian conditioning, as evoked and evinced in the writings of aspiring auto-icon Bentham, Harvard professor Jacob Bigelow, and steam power advocate Thomas Love Peacock.

One of the OED’s quotations for technology’s archaic meaning is taken from book 1 ("Theoretic Grounds") of Bentham’s 1827 Rationale of Judicial Evidence. In the first chapter, “On Evidence in General,” Bentham writes:

If all practice, much more must those comparatively narrow branches of it, which are comprehended under any such names as those of art and science, be grounded upon evidence.

Questions in natural philosophy, questions in natural history, questions in technology in all its branches, questions in medicine, are all questions of evidence. When we use the words observation, experience, and experiment, what we mean is, facts observed, or supposed to be observed, by ourselves or others, either as they arise spontaneously, or after the bodies in question have been put, for the purpose, into a certain situation. (1827, 19)

While the OED cites this passage to illustrate technology’s premodern meaning as a study of arts or techniques, the text can also be read to signify technology in its emerging modern sense. The term is related to but distinguished from “science,” according to the modern distinction between science and technology as theory and practice. Note too the doubling rhetoric applied to technology between these two quoted paragraphs: as a “narrow branch” of knowledge itself, technology assumes its modern
specialized relation to science; and as a set of “questions” with its own “branches,” technology engages both its archaic sense as study (“questions”) and its modern sense as application (“branches”). Moreover, the wording of the passage delivers a weirdly galvanic charge to Bentham’s description of scientific method as the observation of “facts” that “arise spontaneously,” and of “bodies” (albeit rhetorical bodies) that “have been put in a certain situation.”

In Bentham’s case, however, what is at least as significant as how the word is used is who is using it. The fact that it is Bentham invoking the word does much to suggest the Frankensteinian gloom gathering about the word. After all, Bentham himself donated his own body to science, embracing and embodying a peculiarly Frankensteinian afterlife as a macabre relic still on display at University College London, where a cabinet houses his preserved skeleton topped by a wax replica of his head. Bentham is also a thinker whom Hazlitt accuses of “reducing the mind of man to a machine” ([1825] 2000, 266), of being “one of those who prefer the artificial to the natural” (277), and of working in a manner akin to Frankenstein’s bricolage: “Mr Bentham’s forte is arrangement. . . . He has methodized, collated, and condensed all the materials prepared to his hand on the subjects of which he treats, in a masterly and scientific manner.” Hazlitt also cites an extraordinary example of Bentham’s curiously science fictional hubris: “He has been heard to say . . . that ‘he should like to live the remaining years of his life, a year at a time at the end of the next six or eight centuries, to see the effect which his writings would by that time have had upon the world” (267–68).

Hazlitt’s portrait of Bentham—which stresses his “theories,” his “logical machinery,” and his “technicality of manner” ([1825] 2000, 267, 276)—typifies the well-entrenched English hostility to “theory” by characterizing Bentham as its very incarnation. Bentham’s use of a word like technology is consistent with a learned style that trades in abstraction and system, a style that Hazlitt duly criticizes as “barbarous philosophical jargon” (276). At an abstract contextual level, the English aversion to abstraction renders both Bentham and the theoretical German word Technologie equally suspect on the grounds of theory as such. It is on similar grounds that Shelley’s fictional adaptation of ideas by “physiological writers of Germany” ([1818] 2012, 49) renders her novel suspect in the view of conservative reviewers. Bentham, technology, and Frankenstein were all regarded with
suspicion for their traffic in theory, by the lights of England’s Romantic and gender-coded nationalism, which as David Simpson argues, “contributed mightily to the demonization of theory” as a defining component of “Englishness in general”: “The English are not supposed to practice its rites, but those who do had better be men. . . . Theory thus becomes the province of alienated male rationalists like Victor Frankenstein” (1993, 123).

Across the pond, Frankenphemes of technology can also be found in this period, amidst a national culture usually characterized more as technophile than technophobic. In 1831, when Shelley published her revised Frankenstein, Harvard professor Jacob Bigelow published his revised edition of Elements of Technology (it had first been published around 1828 or 1829). The OED cites this book as an illustrative early use of technology’s modern meaning as “the mechanical arts and applied sciences collectively” (4b). Bigelow’s book collected a decade’s worth of lectures “on the application of the sciences to the useful arts.” In his prefatory “Advertisement” to the volume, Bigelow staked his book’s utility on assembling “scattered” elements into a new, distinctly modern research “subject,” one “peculiarly capable of exciting the attention and curiosity of students.” He continues:

> The importance of the subject, and the prevailing interest, which exist in regard to the arts and their practical influences, appear to me to have created a want, not yet provided for, in our courses of elementary education. . . . To *embody*, as far as possible, the various topics which belong to such an *undertaking*, I have adopted the general name of *Technology*, a word sufficiently expressive, which is found in some of the older dictionaries, and is beginning to be *revived* in the literature of practical men at the present day. (1831, iv, emphases added)

Bigelow’s self-conscious redefinition of technology shows the word starting to accumulate its Frankensteinian associations. Note the striking rhetoric of reanimation in Bigelow’s text: he “revives” Technology to “embody” an “undertaking” of applied science. He strays from the plot of Frankenstein in “adopting” (rather than abandoning) this “embodiment,” but the wording still retains the paternal relation. Whether intended or not, the Frankenpheme of Bigelow’s definition suggests the pervasive but “subterranean” distribution of Shelley’s story and its effect on technology’s modern “revival.” Elsewhere in Bigelow’s book, David Nye finds statements supporting Bigelow’s claim on importing from the German a
new meaning in English for technology, such as Bigelow’s assertion that the “labour of a hundred artificers is now performed by the operations of a single machine” (quoted in Nye 1994, 45)—an image of technology on the “colossal” scale of which Marx will later take note, and an image that, like the rhetoric of resurrection, invests technology with its uncanny sublimity, its Frankensteinian subtext.

Closer to home, Peacock—a friend of Shelley and an acquaintance of Bentham—uses the word technology as a Frankenpheme in two of his satirical fictions. In Nightmare Abbey, published after Frankenstein in 1818, Peacock satirizes the popular taste for Gothic and fantastic literature. Scythrop Glowry, a parody of Percy Shelley, also assumes a Frankensteinian aspect: he isolates himself in his study to read the “mystical jargon and necromantic imagery” of transcendental philosophy (as well as Goethe’s Werther), then begins to plot “his projected regeneration of the human species” ([1818] 2007, 57). He goes so far as to “meditate on the practicability of reviving a confederation of regenerators,” but whether the ensuing “treatise” he publishes is a recipe for said revival or its realization remains obscure—as does the publication itself, for being “wrapt up in the monk’s hood of transcendental technology, but filled with hints of matter deep and dangerous” (58). Here, Peacock’s usage connotes at once the eighteenth-century association of technology with art and abstraction, and its nineteenth-century “revival” in industry and application, shadowed portentously by the “deep and dangerous” menace of “national ferment.” In 1831’s Crotchet Castle, Peacock uses the term as a wry synonym for political economy, which one character calls “a hyperbarbarous technology” ([1831] 1947, 110). Here, Peacock’s usage evokes more clearly the modern sense of technology and its attendant danger, attached to an ironic trope of “barbarity” to connote both brutal violence and antimodern atavism. In both these novels, Peacock invokes technology to articulate modernity and menace, applied arts and anxiety. And like Bentham, Peacock had a similarly technophilic public reputation that amplifies his textual representations of technology; in his case, as a vocal advocate of steam-powered transport.

The examples of Bentham, Bigelow, and Peacock—writers and thinkers of some stature in the early nineteenth century—show the special affect of modernized technology discourse in the period, as a nascent industrial keyword infiltrated and influenced by Shelley’s novel.
Staging Technology Through Special Effects in Georgian “Monster Melodramas”

We also find *Frankenstein’s* “threshold of epistemologization” for technology being more widely established in the incredibly diverse performance culture that surrounded the novel. Stage versions of the novel began proliferating in the early 1820s. As William St. Clair points out, *Frankenstein’s* popularity in its own period resulted more from its stage adaptations than from its small, pricey print runs, the first of which produced only five hundred copies (2004, 367). The text, and more specifically the creature at its core, began to circulate as a Frankenpheme in public discourse, among periodicals and parliamentary debates (as in Canning’s 1824 allusion concerning slavery), soon after the novel’s first theatrical adaptations. “By the end of 1823,” writes Hitchcock, “five different retellings of *Frankenstein* had animated the London stage” (2007, 88–89). Like the political appropriations they engendered, *Frankenstein’s* theatrical adaptations helped to redefine the word technology as a Frankenpheme. And for the most part, these stage adaptations took shape not as traditional dramas in London’s patent theatres, but as multimedia spectacles in the burgeoning illegitimate theatre of the period.

The recent reappraisal of Romantic performance by scholars of the period has prompted not just a review of the “closet” and lyrical dramas of canonical authors like Byron and Baillie but also a retrieval of illegitimate theatre and popular performance culture—its melodramas, burlesques, pantomimes, extravaganzas, magic-lantern shows, boxing matches, executions, and science experiments—along with analyses of its institutional contexts like censorship, copyright, and criticism. Jane Moody reads radical politics at work in London’s Romantic-era illegitimate theatre and provides important context for *Frankenstein’s* dramatizations: the period’s critics developed a “critique of monstrosity” to defend and distinguish “a text-based canon of English drama” from “a miscellaneous realm of nontextual, physical entertainment”—the multimedia, “spurious theatrical forms” that were actually fostered by “the terms of patent monopoly,” and ultimately became popular enough to bring an end to that monopoly (2000, 12–13). “Critics,” Moody writes, “mocked the miscellaneous interweaving of music and visual spectacle with elaborate stage machinery, virtuosic dance and, in the case of pantomime, the silent, gestural language of mime” and “blamed these monstrous productions for what
they perceived as a process of generic miscegenation” (12). Melodrama in particular was popularly figured as monstrous: Samuel De Wilde’s “The Monster Melo-Drama,” a widely reprinted cartoon that first appeared in *The Satirist* in December 1807, depicts its titular monster as a hydra-like beast, with four heads representing period theatre celebrities; its paws trample a document called “Shakespeare’s Works” and on its belly are several teats suckled by period playwrights and theatre practitioners who worked in popular and illegitimate genres like melodrama.

The distinctions between patent and illegitimate theatre in Georgian London represent just one facet of a popular and competitive performance culture. Diane Hoeveler writes that “theater managers who wanted to remain competitive had to keep pace in their use of pyrotechnics and other devices that would continue to ‘shock and awe’ their audiences”: “As attendance at theaters increased throughout the nineteenth century, the technologies involved in stagecraft had to improve, and advancements in lighting, stage machinery, setting, and sound effects were all of major importance in the spectacularization of theatrical fare” (2005, paras. 2, 3). Hoeveler notes that “technologies of visual spectacle” gave a significant boost to the rise of illegitimate theatre (2005, para. 13) and established new standards of audience expectations for theatrical performance.

The illegitimate theatre of Romantic-era England represents a techno-cultural horizon for the pride of place now enjoyed by special effects in today’s popular cultural industries. To be sure, traditional theatre had also begun innovating more technologically advanced stage business in the period; productions of *Macbeth*, especially, were “grist to the mill of the maker of effects” (Rees 1978, 137). But the multimedia “monstrosities” of illegitimate theatre made it a distinctive cultural laboratory for giving dramatic and technological application to the theories of scientists like Humphry Davy and Luigi Galvani. For one example, an 1820 Gothic melodrama *The Vampyre* innovated a new kind of trap door, later used in an 1824 *Frankenstein* farce (Forry 1990, 34). For another, it wasn’t a patent theatre but the Lyceum that first lit a London stage with gaslight, in 1817. Terence Rees writes that Covent Garden opened its 1815 season with exterior gaslight, but the Olympic brought gaslight inside later that year, to little fanfare, until the Lyceum’s stage use of gaslight in 1817—whereafter most of London’s theatres quickly adopted the new lighting technology. By 1829, only the Haymarket still held out, in dim oil-lamp and candlelight, against
the new gaslight standards (Rees 1978, 9). These lighting standards, in turn, fostered the nascent sector in special effects: they drove increasing sophistication in scenery and other effects and demanded an increasing—and increasingly specialized—labour force (Rees 1978, 189). In addition, scientists like Davy and Galvani themselves gave theatrical presentations, in an increasingly public culture of science (Holmes 2009, 295). This culture often openly leveraged *Frankenstein* in staging sensational exhibitions of electric experiment and other “scientific sensations” (Morus 1998).

The stage *Frankenstein*s of the 1820s and 1830s demonstrate with peculiar aptness these techno-cultural functions of the illegitimate theatre, and not just for putting popular ideas about science in a new light. These productions tended overwhelmingly to take shape as melodrama, burlesque, and farce. The first, Richard Brinsley Peake’s *Presumption*, opened at the English Opera House in July 1823. (In an intriguing variation on the theme of theatrical adaptation and “hideous progeny,” Peake was named after a famous playwright of his father’s generation, Richard Brinsley Sheridan [Behrendt 2001, para. 1].) *Presumption* was so popular that it inspired fourteen other dramatizations of *Frankenstein* over the next three years, in England and France, including four in England in just the latter half of 1823 (Forry 1990, 3–4). Indeed, between 1823 and 1826, about fifteen stage productions adapted *Frankenstein*. The title of one 1824 production—*Frank-in-Steam; or, The Modern Promise to Pay*—parodies the full title of Shelley’s novel; at the time, steam power was as potent an icon of modern industrial technology as were the automated looms that Luddites raged against from 1811 to 1817, their campaigns peaking from the summer of 1816 to that of 1817, precisely when Shelley was writing her novel (O’Flinn 1986, 196). In *Frank-in-Steam*, the play’s protagonist, a student in debt, learns of the death of his antagonist, a bailiff named Mr. Snatch, and cannot resist the opportunity to reanimate the corpse—rather unwisely, since the bailiff remains, in his undead state, as bent on collecting the student’s debt as he was in life. Ultimately, the student kills his monstrous progeny by pushing Snatch into a steamboat’s boiler (Forry 1990, 186). This play also parodies Peake’s *Presumption*, not only by capitalizing on the growing popularity of stagings of *Frankenstein* but also in one important detail—by not staging but instead *narrating* its climactic steam-boiler murder scene, thereby denying the audience a technical spectacle that *Presumption* had led it to expect of these stagings.
The Medium Is the Monster

Theatrical versions and print editions fuelled each other's production throughout the nineteenth century—as in Shelley's reference to "presumption" in her 1831 second edition (St. Clair 2004, 371). Repeat stagings and printings of the earliest dramatizations held interest until the mid-nineteenth century, after which time new theatre versions appeared and still keep appearing, amidst a myriad adaptations in other media. Among the earliest stagings, two have powerfully shaped the popular reception of the novel and, thus, the modern popular discourse of technology. These were Peake's *Presumption* (1823) and Henry Milner's *The Man and the Monster* (1826). Both of these adaptations boiled down the novel's complex morality into a populist, conservative moral; as Forry writes, "on the English stage . . . *Frankenstein* immediately became associated with unbridled revolution, atheism, and blind progress in science and technology" (1990, 35). St. Clair shows how intellectual property regulations in nineteenth-century Britain left print editions of the novel scarce and expensive and left playwrights and theatres free to adapt the text without copyright restrictions. The relative scarcity of the print novel, then, drove new stage adaptations to exploit prior stage adaptations rather than the source text itself. St. Clair claims that the effect of these regulatory continuities was to popularize the story as a reactionary, religious cautionary tale, rather than the scientifically speculative and progressive allegory of the Enlightenment that he says Shelley intended (2004, 373). However, many critics read in the novel a clear critique of science and its unintended technological consequences; Anne K. Mellor's reading of Shelley's "feminist critique of science" is a salutary example (1988).

*Presumption* exerted the greatest influence on subsequent receptions of the novel, including the 1931 film with Boris Karloff. *Presumption* first transformed Shelley's eloquent creature into a mute monster; it gave the solitary Victor Frankenstein a lab assistant, and it recast Victor himself as the prototype of the now-formulaic "mad scientist" character. In Peake's play and the 1931 film, the assistant's name is Fritz; in the sequels to the film, a shepherd named Ygor, played by Bela Lugosi, begins to eclipse Fritz's role, and subsequent adaptations have entrenched the identification of Dr. Frankenstein's assistant as "Igor"—for example, in the eponymous 2008 animated film. As Richard Holmes notes, *Presumption* also turned *Frankenstein* 's vaguely described "workshop of filthy creation" into a lab at "the centre of dramatic interest" (2009, 335). Peake dramatized

**Figure 2** Actor T. P. Cooke playing the Creature in Richard Brinsley Peake's *Presumption*, 1823, the first of many theatrical adaptations of Shelley's novel. The role required the actor's skin to be painted blue. Lithograph by Nathaniel Whittock, based on an original painting by Thomas Charles Wageman. Image courtesy of the Carl H. Pforzheimer Collection of Shelley and His Circle, New York Public Library.
Theatrical versions and print editions fuelled each other’s production throughout the nineteenth century—as in Shelley’s reference to “presumption” in her 1831 second edition (St. Clair 2004, 371). Repeat stagings and printings of the earliest dramaticizations held interest until the mid-nineteenth century, after which time new theatre versions appeared and still keep appearing, amidst a myriad adaptations in other media.

Among the earliest stagings, two have powerfully shaped the popular reception of the novel and, thus, the modern popular discourse of technology. These were Peake’s *Presumption* (1823) and Henry Milner’s *The Man and the Monster* (1826). Both of these adaptations boiled down the novel’s complex morality into a populist, conservative moral; as Forry writes, “on the English stage . . . *Frankenstein* immediately became associated with unbridled revolution, atheism, and blind progress in science and technology” (1990, 35). St. Clair shows how intellectual property regulations in nineteenth-century Britain left print editions of the novel scarce and expensive and left playwrights and theatres free to adapt the text without copyright restrictions. The relative scarcity of the print novel, then, drove new stage adaptations to exploit prior stage adaptations rather than the source text itself. St. Clair claims that the effect of these regulatory contingencies was to popularize the story as a reactionary, religious cautionary tale, rather than the scientifically speculative and progressive allegory of the Enlightenment that he says Shelley intended (2004, 373). However, many critics read in the novel a clear critique of science and its unintended technological consequences; Anne K. Mellor’s reading of Shelley’s “feminist critique of science” is a salutary example (1988).

*Presumption* exerted the greatest influence on subsequent receptions of the novel, including the 1931 film with Boris Karloff. *Presumption* first transformed Shelley’s eloquent creature into a mute monster; it gave the solitary Victor Frankenstein a lab assistant, and it recast Victor himself as the prototype of the now-formulaic “mad scientist” character. In Peake’s play and the 1931 film, the assistant’s name is Fritz; in the sequels to the film, a shepherd named Ygor, played by Bela Lugosi, begins to eclipse Fritz’s role, and subsequent adaptations have entrenched the identification of Dr. Frankenstein’s assistant as “Igor”—for example, in the eponymous 2008 animated film. As Richard Holmes notes, *Presumption* also turned *Frankenstein*’s vaguely described “workshop of filthy creation” into a laboratory at “the centre of dramatic interest” (2009, 335). Peake dramatized
the novel’s “dreary night of November” (Shelley [1818] 2012, 83) as a sensational “creation scene” calculated to shock audiences. Peake left the act of creation offstage, narrated by Fritz but with flashes of blue fire from the offstage lab, after which the monster burst onto the stage, made up all in blue, which became the character’s standard stage colour (fig. 2).

In contrast, Milner’s 1826 version, *The Man and the Monster*, moved the creation scene onstage, presenting a lab set complete with high-tech props, to dramatize the creature’s first twitches of galvanic animation (in a way now familiar from the 1931 film). The scene is described in Milner’s stage directions:

SCENE III.

*The Interior of the Pavilion.—Folding Doors in the Back. On a long Table is discovered an indistinct Form, covered with a black cloth. A small side Table, with Bottles, and Chemical Apparatus,—and a brazier with fire. [. . .] Music.—He [Frankenstein] rolls back the black covering, which discovers a colossal human figure, of a cadaverous livid complexion; it slowly begins to rise.* (Quoted in Forry 1990, 194)

The creation is the first of a triptych of scenes that *Presumption* and its successors made obligatory—and famous as showcases for spectacular effects. The other two scenes are the monster’s setting fire to a cottage, and the monster’s destruction, usually along with that of his creator in the same fell swoop. Producers of *Presumption* and its progeny soon seized on this triptych of creation, combustion, and catastrophe as a major selling point. The advertising for *Presumption* promoted these scenes in particular among its “many striking effects” (quoted in Morton 2002, 51). The first French adaptation, Jean-Toussaint Merle and Antony Béraud’s 1826 *Le monstre et le magicien*, succeeded, in part, on the strength of “its fantastic special effects, which it borrowed from the British stage” (Forry 1990, 11). One Parisian reviewer raved: “Jamais . . . on n’avait vu chez nous machinerie plus compliquée et plus extraordinaire.” An advertisement in the newspaper *Le Temps* even included a schedule of the most spectacular scenes: “à neuf heures, la Naissance du Monstre; à dix heures, l’incendie; à dix heures et demi, le Ravin des Torrents” (quoted in Forry 1990, 11). A staple strategy ever since, the advertising of special effects in *Frankenstein* performances has given technology itself a starring role in the spectacular productions of popular culture, an uncannily animated fetish figure of the
cultural industries’ power. For a present-day example, note the attaching of “3D” to the title of virtually every new cinematic release.

As well as great ad copy, the special effects of early *Frankenstein* plays made good material for show-business comedy and theatre lore. A year after *Presumption*, Peake lampooned his own play with *Another Piece of Presumption*, a meta-theatrical burlesque full of jokes about “complicated machinery” and the show’s own shoestring budget: “Cut out my house on Fire—” complains the playwright to the manager (quoted in Forry 1990, 162).

Also in 1824, a Birmingham production of *Presumption* inadvertently turned melodrama into farce, by trying to economize on effects. The theatre didn’t have enough canvas for the avalanche scene and, instead, repurposed a big prop elephant from an earlier production:

> Before we reached our elevation a pistol was fired behind the scenes, when the Master Carpenter being over anxious for the success of the experiment let go—when down came the elephant with a tremendous crash, knocked down the platform and scenery and came rolling down the stage to the footlights where it ran some danger of being roasted till it was dragged off the stage. (O. Smith, quoted in Forry 1990, 7, emphasis added)

Note the rhetoric of “experiment” in the actor’s account of the accident. In the theatrical popular culture of Georgian England, adaptations of *Frankenstein* provided a convenient yet contradictory unity of form and content for a theatre culture marked by technical experiment and a scientific culture marked by increasing theatricality—the latter exemplified by the notorious “‘re-animation’ exhibitions” conducted in 1803 by Giovanni Aldini (Holmes 2009, 317), who would later take the gaslight technology of British theatre back to Italy (Rees 1978, 31).

As the earliest “technological reductions” of *Frankenstein*, these plays were characterized by cautionary plots and spectacular effects that dramatized the complex tension between determinism and instrumentalism integral to the modern discourse of technology. On one hand, the plays’ reactionary message—that scientific pursuits are diabolical and deadly—bolsters the determinist dimension of technology discourse: not only is unethical experimentation predestined to backfire, but its product will prove fatal to the researcher. The plays conflate science and Satanism—both
thematically, in Faustian representations of Frankenstein’s work (Peake and Milner, quoted in Forry 1990, 137) and descriptions of the monster as a devil (Peake and Kerr, quoted in Forry 1990, 215)—and technically, in their use of the latest special effects to dramatize diabolism and to mystify monstrosity. As Fred Botting writes, “the uncanny is, in many ways, a technological phenomenon whose effects are accentuated by the shifts and disturbances of technical innovation” (2005, para. 21), and technology—embodied in these plays as the monster—takes on a life of its own.

On the other hand, the plays’ spectacular media complicate the determinist message: they demonstrate the creative instrumentality of new technologies like gaslight, and their power to mystify gives ground to instrumentalism in consummately theatrical moments when the expected avalanche arrives early as a prop elephant. Then again, such moments also freight the plays’ special effects with the sense of risk that becomes a defining feature of modern technology. The obligatory cottage-burning scene is a perfect example: Rees notes with grim irony that, “at a time when theatres burned down with monotonous regularity, a good stage fire carried an additional frisson over and above its spectacle value” (1978, 146).

The stage versions did still more to consolidate the popular understanding of technology as a Frankenpheme, by characterizing the creature as a mute and thus mystifying monster, who—like the special effects being exploited to stage him—represents an experimental and potentially disastrous application of current scientific theory. “From print to stage to screen,” Botting argues, “the monster circulates in depictions of fearsome machinery and in new apparatuses of cultural production” (2005, para. 11). In the early *Frankenstein* plays, the mute monster embodied a fetish-figure of technology: a “daemon” born of “machinery and magic” (Milner, quoted in Forry 1990, 198), running amok amidst the fireworks, gaslights, and other “ponderous machinery” surrounding the stage (Rees 1978, 203). With their uncanny, dramatic figures of technology running amok amidst new theatre technology that constantly threatened the same, these plays redirected the audience’s attention from subjective acting to objective effects, and in effect problematized the technological dialectic between liveness and mediation, decades before gramophone or film. The “monster melodramas” of Georgian theatre provided a scene, incentive, and challenge for experimenting with special effects, which now represent their own capital-commanding sector in today’s cultural industries. We
can trace a genealogical line from the animated blue devils of *Presumption* and its progeny to *Avatar’s* animated race of blue aliens. The formal and thematic emphases on special effects in the period’s illegitimate theatre, especially in its *Frankenstein* adaptations, represent a spectacular performance of the period’s broader redefinition of modern technology’s *episteme* in terms of media and monstrosity.

It is no uncanny coincidence, then, that the reinvention of technology emerged in the decade after *Frankenstein’s* debut; *Frankenstein* interdicted the rejuvenated German *Technologie* in the course of its English immigration and rerouted it through the writings of Anglo-American public intellectuals, and through popular scenes of sensational performance. The text and its popular receptions do not coincidentally belong to the period of the word’s revivification in English, they texture and direct this revivification. The modern discourse of technology—as a fetishized determinism, as the dread that supplements development, as “future shock”—is a powerfully affecting effect of the text’s cultural function in its time, as an epistemological “instrument of future mischief.” In the twentieth century, this sense of technology’s mischief would be recast on a global stage, largely through the work of Marshall McLuhan, to whom we now turn.