1. Technology, *Frankenstein*, and . . . Canada?

Because of technology’s ambiguities, the scholarly literature that takes technology as its main subject sometimes pays special attention to definitions and terminology, and, in the process, it articulates different premises. One thing many writers agree on is that, as W. Brian Arthur says, “we have no agreement on what the word ‘technology’ means” (2009, 13). Langdon Winner observes that the word “is applied haphazardly to a staggering collection of phenomena” (1977, 10). For French cultural theorist Jacques Ellul ([1954] 1964) and *Wired* cofounder Kevin Kelly alike, the word is “too small” (Kelly 2011, 11), too specific for their purposes, so they coin more expansive terms that encompass and exceed technology, like Ellul’s concept of *technique*. For Alvin Toffler, the inverse obtains: “Technology,” he specifies, “includes techniques” (1970, 25).

**Technology: A Shape-Shifting Signifier**

Three major premises for definitions and theories of technology prevail: the *instrumentalist* premise sees technology as mere, value-neutral tools that can be put to different uses, ethical or otherwise, by users; the *determinist* premise holds that technology is not value-neutral but rather determines and organizes its uses according to its own logic or priorities; and the *substantivist* premise “claims that not only does technology operate according to its own inherent logic, but also that this logic is at the expense of humanity” (Lorimer, Gasher, and Skinner 2008, 253). McLuhan,
in his writings, defines and theorizes the terms technology and media, which are major keywords and closely related in his work; McLuhan's thinking on technology has been characterized sometimes as determinist, sometimes as substantivist.

Other definitions are worth glossing here for their variety. Winner provides a pragmatic, three-part definition of technology as apparatus, techniques, and organizations (1977, 11), on which he then builds a substantivist theorization. Carl Mitcham excavates an exhaustive etymology of the word and its meanings, from its ancient roots in Aristotle to the nineteenth century, in his survey of the philosophy of technology (1994, 128). George Grant, in Technology and Empire, defines the word as follows: “by technology I mean ‘the totality of methods rationally arrived at and having absolute efficiency (for a given stage of development) in every field of human activity’” (1969, 113). Grant is quoting from Ellul’s 1954 La Technique, translated into English as The Technological Society (1964). But Ellul and his English translator take pains in the English edition to specify that the keyword is not technology but technique, which “does not mean machines, technology, or this or that procedure for attaining an end” ([1954] 1964, xxv), but the aforementioned “totality of methods.” For Grant, technology is synonymous with a word that, for Ellul, surpasses and subsumes it; Grant’s English misappropriation of French theory resonates with Canadian irony.

Samuel Weber (1989) notes a similar contingency of translation with “The Question Concerning Technology,” the prevailing English translation of Martin Heidegger’s 1954 essay “Die Frage nach der Technik,” by William Lovitt, published in 1977. Heidegger’s essay has become a founding text for contemporary fields of technology studies; however, Weber argues, technology is narrower and more theoretical than the German Technik, which also means “technique, craft, skill” (1989, 981). Cursory as this critique of translation is, in the context of Weber’s larger argument, it has wide-reaching implications for the considerable amount of scholarship on technology that has been influenced by Heidegger’s essay since its anglophone debut. Even the translator’s decision to translate Technik as “technology” set a scholarly precedent; it recurs, for instance, in the English translation of Arnold Gehlen’s “Philosophical-Anthropological Perspective on Technology” ([1983] 2003, 213).

Perhaps strangely, there are also major contributions to scholarly literature on technology that offer neither working nor detailed definitions of
this pivotal keyword, but instead leave its fundamental meaning presumed and implied. Donna Haraway’s 1991 essay “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century” uses technology as a keyword throughout, referring variously to telephones, housework, and biotechnology. Most often, Haraway pairs the word with science, to describe the nexus of practices privileged by white capitalist patriarchy. But the reader must infer from these references what’s meant by technology: Haraway supplies neither definition nor theorization, only references amidst which the reader must triangulate the term’s usage and meaning. Late in the essay, Haraway acknowledges something of the particular moral valence of the term—a valence I will argue here belongs to its *Frankenstein*-conditioned history—in her suggestive closing advisory that we should refuse “a demonology of technology” (1991, 181).

Theorizations are sometimes offered in lieu of concrete definitions. Scholars often take a position on technology, contextualize their approaches to it, or reflect on its place in critical, philosophical, or political tradition, without considering its linguistic contours: its denotations and connotations, its material referents. In *Transforming Technology*, Feenberg (2002) argues for a critical theory of technology that transcends what he sees as a dialectical stalemate between instrumental and substantive theories. Feenberg develops a critique of the assumptions and functions of both these schools of thought, as well as his own persuasive and significant critical theorization, but, throughout, he refers to technology in a way that presumes the reader comes to the discussion already knowing what is meant by its key term of reference.

What is vexing about such ambiguity and presumption is the malleability they afford a writer to make one’s own idea of technology into a convenient abstraction that can best suit one’s own research project, critical argument, or ideological agenda. Kevin Robins and Frank Webster, in *Times of the Technoculture*, introduce the subject of their study as “the discourse of technological revolution” (1999, 1), and their ensuing critique extensively problematizes the cultural functions and political contexts of change and “revolution” in representations of modern technology. But they take the term technology to be self-explanatory and derive from it a constellation of coinages, like “technoscape” (Appadurai 1990) and “technoculture.” Where Robins and Webster do pause to clarify how they “think about the nature of technologies,” they make this clarification in theoretical terms: they reject
instrumentalism and situate their approach as more deterministic or substantive, emphasizing that “technologies always articulate particular social values and priorities” (1999, 4). But what they mean by “technologies” per se goes unspecified, although the context of their discussion implies that they use the term as abstract shorthand for the information and communication technologies (ICTs) that serve and structure capital.

Definitions often make an appearance in books about technology for general audiences too, where they also produce variable results and conclusions. In The Real World of Technology, Ursula Franklin defines technology as system and practice, more “multifaceted entity” than merely “material components”: “It includes activities as well as a body of knowledge, structures as well as the act of structuring” (1990, 14). Technology is more than anything else here a scalable theoretical tool, as easily invoked to discuss the specific “technology of Chinese bronze casting” (15) as to conclude with the vast generalization that “the world of technology is the sum total of what people do” (123). And although Franklin takes care in her arguments to emphasize social context and to resist determinism (57), such determinism nevertheless flashes through, in the statement that “technology has muddled or even destroyed the traditional social compass” (14), or the claim that “many technological systems, when examined for context and overall design, are anti-people” (76). The ideological implications of popular writing on technology can be particularly pronounced.

Arthur’s The Nature of Technology surveys and rejects dictionary definitions—and claims (rather preposterously) that “a theory of technology” is “missing” from the literature on the subject (2009, 14). Arthur proposes a three-part definition of technology—as purposive means, as combinations of practices and components, and as a culture’s totality of said combinations (28)—which then establishes the basis for what he claims is a new theory of technology as an evolutionary system (its “nature”). And yet neither Arthur’s definition nor theory are actually new: the former clearly echoes Winner’s three-part definition, while the latter extends the substantivist theoretical tradition of Ellul—and of McLuhan (whose theory of technology is of central concern in what follows). Similarly, Kelly’s What Technology Wants grounds an argument for technology’s autonomy as a “living system” (2011, 15) in an unfortunately oversimplified synopsis of Mitcham’s account; while Mitcham traces the meanings of technology through medieval and early modern Europe, Kelly claims that the term
simply vanished after Aristotle and was spontaneously “resurrected” by the late-eighteenth-century scholar Johann Beckmann (8). The language of resurrection is noteworthy here, in the context of the present study’s claims for *Frankenstein’s* role in framing how we talk about technology.

So we find similar notes of ambivalence, amorphousness, and anxiety both between and within the bodies of popular and scholarly writing that focus on technology as their main subject. With this observation, I don’t mean to denigrate the valuable work done by scholars, critics, and other writers and artists on the subject of technology, let alone dismiss science and technology studies (STS) or other fields of study organized around this subject. Language, definitions, and discourse are not everyone’s main concern, and understandably so—given the prevailing “technological imperative” of modern state governance and economic policy, the determining force of technology in everyday life, the myriad current problems and crises of technological risk, and the need to assess, make sense of, and critique these and technology’s other social roles, relations, and functions. But in the quite variable forms of attention given to and worked out of the language of technology, discourses on technology pose their own risks to public knowledge and epistemology, in the ease or eagerness with which such discourses can produce and reproduce not clearer understandings of technology but, rather, further fetishizations, reifications, and other mystifications of it. Technology has been fetishized and reified even by analyses that are otherwise quite cogent critiques of technology, its political economic functions, and its socio-cultural effects. Examining technology first and foremost as a discourse, instead, this book offers a genealogy of this discourse, from the redefinition of technology at the advent of industrial modernity to its current privilege as a central keyword in the hegemony of globalized neoliberal capitalism.

Numerous examples of this privilege abound: for instance, in the contemporary, corporatizing university’s relative political and economic prioritization of science, technology, engineering, and mathematical disciplines (as well as professional fields) over those of the humanities and social sciences (Sigelman 2016). One striking, concise illustration of the privilege technology enjoys in policy and business—and in their mutual constitution under global capital—is provided by a 2017 Canadian government press release, which states that “technology and the innovation it helps promote are key to the future of Canada’s economy” (Canada 2017). Yet even here
a Frankensteinian shadow looms, in this press release’s specification of investment in “clean technology”—this is a common enough compound noun meaning energy production that doesn’t exacerbate climate change, but as a compound it also implies that there may be something dirty about “technology” per se.

As dramatized by the example of The Daily Show, the privilege so widely enjoyed by technology today has its countervailing shadow; as Neil Postman put it, “every technology is both a burden and a blessing” (1993, 4). To borrow a fitting metaphor from the field of STS itself, the word technology is its own linguistic “black box”: it works effectively and persuasively in everyday speech, popular culture, and scholarship, even when its inner workings remain unexamined or inaccessible. The elastic and ambiguous word technology combines with successive waves of technological development—and with technology discourse’s nontextual vocabulary of sound and image—to give rise to generalized representations of technology per se that are based mainly in specific, current “high tech” trends and developments of the day.

The sound and image vocabulary of technology discourse complements the textual vocabulary of technology in that the word evokes a certain visibility of novelty in what it’s applied to—as, by the same token, certain sound- and image-based social and cultural practices evoke the technological more clearly or conventionally than others. The word technology, in everyday language, usually refers to tools, systems, and products that are new, that exhibit a spectacular quality, that are made via industrial and postindustrial processes—tools, systems, and products that are, in other words, “high tech.” In contemporary parlance, “technology” is not a term commonly applied to, say, wheels or chalkboards, although both could qualify as such according to the varied theoretical parameters and criteria mentioned above. Observing this “shorthand” use of the word, Jeremy Gilbert and Ewan Pearson identify a hierarchizing function in the language of technology, what they call technology’s effect as an “index of visibility.” “Some items,” they write, “are considered more technological in status than others”; for example, “a drum machine is more technological than a drum.” Conversely, more established tools and systems are rendered “invisible as technologies” (1999, 112).

Correspondingly, some image- and sound-based practices of representation appear and sound more technological than others. Films that make extensive use of computer graphic imaging (CGI); images of industry,
machinery, computers, motorized vehicles, automation, robotics, and cybernetics; holograms: these images visualize what is now seen as “high tech”—as, for earlier historical audiences, did images of automata, silent films, and jukeboxes. In the milieu of sound, the electronic dance tracks of Deadmau5 sound more technological than the country songs of Taylor Swift, although very similar instruments and sound engineering practices may be used in the recording and performance of each (for instance, drum machines, multitrack recorders, mixing boards, and speaker towers). The audibility of technology has long belonged to popular music’s politics of authenticity, from the first phonographs—which were understood by band musicians as a direct threat to their livelihood, the threat of automation—to the complex fallout of disco’s “death” at the end of the 1970s: rejected ostensibly for its artifice, but ideologically for its queerness, disco returned to the dance underground, where its artificiality was not jettisoned but rather intensified, to re-emerge in the 1980s as house, techno, and the spectrum of sounds now known as “EDM”—electronic dance music. The complexities EDM has brought to pop music’s politics of authenticity, in terms of “liveness,” are explored in chapter 7.

Given the cultural functions and effects of technology’s “index of visibility,” the discourse of technology as I theorize it in this book includes some sound and image productions and practices as well as textual articulations. While Deadmau5’s house tracks make only scant reference to “technology” in their lyrical content, the discourse of technology audibly pervades the production, performance, and reception of this music. “Technology” occurs only once in the script of Cronenberg’s 1983 film Videodrome—but the discourse of technology visibly permeates the whole film, in its sensational imagery of consumer home electronics that grow grotesquely monstrous. So this study investigates Frankensteinian figures of technology, not exclusively in textual constructions but also in selected sound- and image-based cultural productions: film, music, and photography, some examples of which are compared in chapter 8.

This visibility or spectacular character of technology discourse has its epistemic roots in Frankenstein’s monster and the nascent industrialism it figures. As David Nye notes, in the nineteenth century, “the English were prone to view industrialization in terms of satanic mills, frankensteinian monsters, and class strife” (1994, 54). Marxist readers of Shelley’s novel have shown how Frankenstein’s monster, as a reanimated collage of
corpses, became legible as a monstrous image of the working class. “In the anatomist’s assembly of the monster,” writes David McNally, Shelley “imaginatively reconstructs the process by which the working class was created: first dissected (separated from the land and their communities), then reassembled as a frightening collective entity . . . the proletarian mob” (2011, 95). But Shelley’s monster was composed—not coincidentally—during the Luddite machine-breaking disturbances of the mid-1810s (O’Flinn 1986), so the monster has also become legible as a figure of the industrial, technological mode of capitalist production that yielded the working class: a mode of production that incorporated alienated labour, automation, Fordist assembly lines, Taylorist management, the increasing mobility of capital and labour, and the consolidation and ascent of corporate business structure. Sometimes figuring the “vampiric” leadership of corporate capitalism, sometimes figuring the zombie-like labour of industrial workers, and sometimes figuring both at once—as in Marx’s famous, grotesque image of capital as “dead labour which, vampire-like, lives only by sucking living labour” ([1867] 1976, 342)—Shelley’s vividly imaginative construct has spawned its own “hideous progeny” in many representations and mediations of technology and technological change under capitalism.

As illustrated by the many examples found in major compendia of *Frankenstein* in popular culture (for instance, Forry 1990; Hitchcock 2007; Morton 2002), *Frankenstein* has established and disseminated a vivid vocabulary of not just textual but multimodal, multimedia images of technology: from an 1821 cartoon placing a bound edition of *Frankenstein* among dental instruments (fig. 1), to the oeuvre of Cronenberg’s “body horror” films, discussed in chapter 5, to the cultural hostilities over the aura of “liveness” versus the audibility of automation that are perennially enacted between new and established music-making practices (see chapter 7). As mediated by the classic cinematic adaptations of *Frankenstein*, even the image of throwing a switch exemplifies an image of technology that embeds an evocative Frankensteinian subtext. “When all is ready, I throw this switch”: this line from a 1938 radio show about Superman, sampled by Coldcut in their 1987 remix of Eric B. and Rakim’s rap track “Paid in Full,” occurs early, right before the first instance of the lyrical refrain “Pump up the volume.” The sample about switch throwing thus lends a Frankensteinian tone to the rest of the track as a dense collage of audio samples
all grafted together and fused with major components of the rap artists’ original single.

**Figure 1** A. E. “Tugging at a High Eye Tooth.” Coloured etching by G. Cruikshank, after A. E. 1821. Note the copy of *Frankenstein* on the bookshelf. Image courtesy of the Wellcome Collection. Photo CC4.0 licensed from Wellcome Collection.

Sometimes, textual articulations of technology combine with visual and other representational strategies to reinforce and reify the popular understanding of technology as the latest in high tech, which as of this writing encompasses largely consumer-oriented, digital, networking tools and systems, things like mobile devices and social media. And sometimes, too, these multimodal representative strategies converge to suggest something else about what technology means. Consider Larry Rosen’s 2012 book *iDisorder: Understanding Our Obsession with Technology and Overcoming Its Hold on Us*. The title and subtitle themselves suggest a lot about what’s meant here by “technology”: the “i” in “iDisorder” connotes Apple’s branding, which together with the word “obsession” suggest that
by “technology,” Rosen means consumer digital electronics and systems. Furthermore, “obsession” and the trope of “overcoming its hold” suggest a dialectic of desire and danger; technology is implied to be an agent or enabler of something like addiction. The trope of “overcoming” a “hold” suggests that technology is an adversarial power the reader is wrestling with or struggling against. The cover image shows the black silhouette of a tortured soul trapped in the white screen of a Blackberry-like device (which maybe also suggests the book isn’t just blaming Apple?). The vague and inclusive “us” commonly found in general-audience and self-help books implies the book’s target market to be middle-class users of networked mobile devices who think there’s a problem with their use. In his book’s introductory chapter, Rosen quickly establishes that by technology he means digital, networked devices. He sums up his book’s aim as an effort to “demonstrate how the technologies that we use daily coerce us to act in ways that may be detrimental to our well-being” and “to recognize the craziness that technology can promote and discover new ways to stay sane” (2012, 5–6). Or, as the publisher’s blurb about the book, quoted on the author’s webpage, puts it, “Rosen teaches us how to stay human in an increasingly technological world” (Rosen 2011). I am neither supporting nor disputing Rosen’s ideas or his expertise in technophobia and what he has termed “technostress” (2012, 6); my point here is that his study of technology-conditioned psychological disorders and how to alleviate their “symptoms” (6) itself exhibits a symptomatic sense of technology, in not only its writing but also its visual design and marketing media, engaging a multimodal vocabulary of technology discourse that figures technology not only in terms of “revolutionary” newness but also in terms of danger, globalization, contagion, and opposition to humanity. As I hope the following chapters here will show, this discourse has a distinctively Frankensteinian (and a less obviously but no less significantly Canadian) provenance.

Given the coordinated arrays of textual, visual, and other representations of technology that inform and structure arguments like these about technology—arguments which often implicitly refer to contemporary, more visibly “technological” technologies—close and carefully contextualized reading demonstrates that such arguments, far from novel, reproduce long-embedded cultural assumptions about technology’s definition and, as importantly, about its fetish character—the uncanny apprehension that
“it’s alive!” In the process, such arguments retell the old but perennially relevant story of *Frankenstein*.

It’s a story well enough known and discussed in both the scholarly and popular traditions. Winner ends *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* with a chapter called “Frankenstein’s Problem”—an explication of Mary Shelley’s novel that brings home his own point about “our involvement with technology,” namely, that “we are dealing with an unfinished creation, largely forgotten and uncared for, which is forced to make its own way in the world” (1977, 316). Edward Tenner starts *Why Things Bite Back: Technology and the Revenge of Unintended Consequences* with a chapter called “Ever Since Frankenstein,” in which he adopts Shelley’s novel as a framing allegory for his tour of the “revenge effects” of technology in medicine, computing, and other high-tech areas of modern life. “It was Mary Shelley’s *Frankenstein*,” Tenner writes, “that first connected Promethean technology with unintended havoc. . . . Mary Shelley wrote prophetically at the dawn of technological systems thinking” (1996, 14, 15). In his book, Tenner isn’t interested in the linguistic or theoretical aspects of technology: he briskly defines it, in his preface, as “humankind’s modification of its biological and physical surroundings” (xi). But his claim that *Frankenstein* “first connected” technology and backlash might well describe the claim of the present study, in terms of language and discourse as well as culture. Likewise, Winner’s proviso—that his claim is “not, as the boosters may conclude, that technology is a monstrosity or an evil in and of itself” (1977, 316)—is one my argument inverts, in terms of how the word is used and what discourses are involved in its construction and meaning making. In the chapters that follow, I aim to show that *Frankenstein* and its Canadian adaptations have constructed the modern English word technology as a figure of manufactured monstrosity and have globally popularized this sense of it.

**Logocentrism and “Revolutionary Technology”**

The cultural and epistemological space that *Frankenstein* opened for the modern meaning of technology must also be contextualized according to a broader historical order of Western discourse that it has been the project of deconstruction to critique: the hierarchical ordering of speech over writing, *logos* over *technē*. The reinvention and reconfiguration of
the globalized discourse of technology that began in Mary Shelley’s time, and accelerated in McLuhan’s, both built on and transformed the epistemology and language of this deeper cultural logic of logocentrism, of the privileging of voice and presence and “the debasement of writing” (Derrida [1967] 1976, 3). As McLuhan described his work as a footnote to that of Harold Innis, I might describe this work as a footnote to that of Jacques Derrida.

As Derrida has exhaustively investigated ([1981] 1988), criticisms of new media are anything but new. In the third century BCE, Plato, in *Phaedrus*, famously wrote against writing, in Socrates’s account of the mythic encounter between the Egyptian god Theuth, inventor of writing, and King Thamus, who warns that the invention will not preserve memory but rather destroy it. This ancient parable has become a primal scene for representations of media and tools in terms of change and supplementation, of new tools not just replacing old but threatening and overthrowing them, in processes we would now call innovation and obsolescence. Correspondingly, this parable furnishes a primal scene for the perennially hostile response of established cultural and economic interests to new technological developments. Friedrich Kittler points out that the oldest known image of a print shop, from 1499, depicts it “as a dance of death” ([1986] 1999, 5). David Thornburg’s *Edutrends 2010* (1992) recounts a history of hostile reactions from educational institutions to new media technologies, from criticisms of paper (in favour of slate and chalk) in 1815, to criticisms of ink (in favour of pencils) in 1907, to criticisms of disposable ballpoint pens in 1950. Before dismissing the apparent absurdity of this litany of objections to what might now seem the most unobjectionable, most commonplace media tools, consider that the litany has continued more or less unabated, from early twentieth-century criticisms of film, radio, television, and home recording (as seen in Cronenberg’s *Videodrome*), through mid-1990s concerns over email, to today’s anxieties about mobile devices, texting, and social media.

The popular music business demonstrates a dramatic and ongoing history of perennial recoil from new media for their perceived threat to established systems and vested interests. The music industry’s campaign against file sharing reproduces historical campaigns: audio engineers against samplers, vinyl producers against cassettes and CDs, and musicians against phonographs and jukeboxes, which, as Sarah Thornton (1996) documents, were constructed as a similar threat to live—meaning

authentic—musicianship; in chapter 7, this study looks at how this politics of presence and authenticity is now reproduced, however ironically, in the context of DJ culture, which is organized predominantly around the playback of recordings. Tellingly, Thornton’s book reproduces an image from *DJ Magazine* that echoes the 1499 picture of a skeleton-surrounded print shop—an image of “the death of vinyl,” showing one shrouded skeleton clutching a record, and another clutching a CD and a sampler (1996, 64). In this long tradition, the major record labels’ current copyright campaign tries to win public sympathy by appeals on behalf of the recording artists’ labour that the labels actually exploit. The labels and their intermediaries make appeals to authorial originality as a principle of “making one’s living” (a disingenuous appeal, given that corporations, not artists, hold music recording copyrights in the overwhelming majority of cases), in opposition to technologies figured as theft, as the privation of “honest” labour and its replacement by inhuman, automatic processes. Today’s “copyfight” sees this dialectic of Romantic individualism versus monstrous technology being deployed by all interested parties: while the corporate entertainment lobby paints Romantic portraits of “starving artists” staving off a global horde of pirates armed with a Pandora’s box of digital technology, the so-called pirates, a pejoratively defined group that includes a great many legitimate, noninfringing media consumers and users, mobilize grassroots defences of expressive freedom and personal privacy against the digital locks, kill switches, trolling, cease-and-desist notices, and suspensions of service imposed by “Big Media” acting more and more like Big Brother.

This long-standing historical pattern of public conflicts between established interests and upstart innovation has furnished Western cultural history with scenes of Luddites versus technocrats, of “dinosaur” industries versus nimble entrepreneurs, and indeed of “zombie economics” wielding a dead hand’s power over new attempts by the living to make a living (Quiggin 2010). This pattern has thus also furnished the English language with figures of technofetishists and technocrats, and has installed a sensational rhetoric of revolution in the discourse of technology: a rhetoric of rivalry and replacement in modes of production and consumption, in industrial and communication developments. As David McKitterick (2003) points out, the historical record shows not that new media replace old and render them obsolete, but rather that new and old media enter into more complex negotiations and mutual
accommodations, adapting to one another in a changing media ecology. Nevertheless, the more arresting figure of revolution dominates popular culture and the hegemonic social imaginary, driven in part by modernity’s distinctive ambivalence toward technological innovation. This ambivalence—which inflects the modern usage of “technology” itself, through the popular mediations of *Frankenstein*—marks the reception and representation of successive media and communication technologies as though competing for supremacy in a zero-sum mediascape, rather than coexisting and sometimes collaborating (as well as occasionally competing, to be sure) in an increasingly complex mediascape.

This sensational (and durably market-tested) image of “revolutionary technology” tends to trump more nuanced understandings of technological change in the popular imaginary. The rhetoric of “revolution” that marks so much public and commercial discourse surrounding technology (especially consumer technology) can be attributed in part to Mary Shelley; as will be discussed in chapter 3, the creature that stands as an anticipatory figure of technology is characterized significantly through tropes of revolution (among others). And this rhetoric can be also attributed in part to Marshall McLuhan’s media theory; his writing emphasizes an epochal rhetoric of change, in which new media come to replace old, and in the process inaugurate new epochs that succeed old ones, and new forms of subjectivity and society that supplant earlier ones. So it is not only because of the capitalist structuring of an economic world-system around competition and rivalry but also because of the discursive figuration of technology as a manufactured monster run amok that, as Kevin Robins and Frank Webster assert, “the idea of technological revolution has become normative—routine and commonplace—in our technological times” (1999, 1).

**Canadian Popular Culture in Postcolonial Context**

So what do these concerns with the discourse of technology have to do with Canada in particular? Quite a lot, I hope to show: Canada is a modern nation-state whose social fabric is deeply interwoven with defining preoccupations with technology, media, and globalization. Establishing the Canadian context for this argument means attending to the continuum of national and global cultural relays and relations that position and pressure Canadian popular culture, according to a postcolonially informed revision of two concepts: *technological nationalism*, which describes
Canada’s ambivalent investment in technology for nation building; and *media imperialism*, which describes Canada’s equally ambivalent relationship to cultural globalization, sometimes as the colonizer but more often as the colonized.

Canadian *Frankenstein* adaptations, like Canadian popular culture more generally, invite a postcolonial perspective. As I have argued elsewhere, the literatures of Indigenous and other racialized minorities have generally occupied a more prominent place in postcolonial analyses of Canadian nation building than have the popular culture and literature of the white, anglophone mainstream (McCutcheon 2009, 765). To redirect postcolonial attention to Canadian popular culture intends “neither to contest nor to dismiss the growing and critically self-reflexive foci on diasporic and indigenous literatures” (2009, 766)—these foci remain urgently important. Rather, the purpose in paying postcolonialist attention to Canadian popular culture is to rethink Canada’s mobilizations of popular culture for political economic projects in nation building and globalized capital (which government policy, in the age of neoliberalism, has increasingly considered to be the same thing). Such rethinking means both working with and moving beyond the traditional triangulation of Canadian popular culture between its “British and American ‘parent’ formations” (Bodroghkozy 2002, 568): working with this triangulation, by acknowledging its political economic map of Canada’s cultural industries, and moving beyond it, by interrogating its nationalist premises in the tracking of diasporic, transnational, and networked cultural practices and processes. That is, a postcolonialist premise and the subject of adaptations bring considerations of cultural and economic globalization to bear on the study of Canadian-based institutions, producers, and practices of popular culture making. What postcolonial attention to Canadian popular culture can provide is a way of “doing the national differently” (Pennee 1999, 83), articulating connections among Canadian culture and policy, the transnational corporate interests that pressure and colonize them (Hedges 2012), and the globally and digitally distributed scenes and communities that use them.

The need for more postcolonialist critique of Canadian popular culture specifically accords with Vijay Devadas’s and Chris Prentice’s general observation that “popular culture is one of those neglected domains of enquiry for postcolonial studies” and their consequent assertion that popular culture and postcolonialist critique matter profoundly to each other.
Identifying the globalized capitalist world-system as (among other things) a legacy of colonialism, they write:

Popular culture today is of significance for postcolonial studies as it is the terrain of struggle between a dominant capitalist force . . . and resistances to it. . . . Popular culture provides the ground for constituting forms of resistance to hegemonic (often nationalist) power structuring social and political relations, and cultural expression, in the wake of colonialism. (2011, 690)

In the context of Canada’s resource extraction-based economy and its nation-building cultural policy tool kit (e.g., Canadian content quotas and public investment supports for cultural production across media; see Grant and Wood 2004), Canadian popular culture is inevitably invested in and intertwined with global forces, both economic and cultural. A postcolonial analysis thus entails situating Canadian popular culture between technological nationalism, on the one hand, and media imperialism, on the other.

**Technological Nationalism and Media Imperialism**

“Technological nationalism” is a term coined by Maurice Charland to describe a “Canadian ideological discourse” that “ascribes to technology the capacity to create a nation by enhancing communication”—but, in the process, “ties a Canadian identity, not to its people, but to their mediation through technology” (1986, 197). Postmodernist scholar Arthur Kroker took up the term and developed it in his 1984 book *Technology and the Canadian Mind*. Here, Kroker identified an “original, comprehensive, and eloquent discourse on technology” (1984, 7) in the work of George Grant, Harold Innis, and Marshall McLuhan, a discourse that Kroker saw reflected in Canadian culture generally, citing as just a few examples, the music of Rush, the fiction of Margaret Atwood, and the brutalist-futurist architecture of urban Canada, like the iconic CN Tower. Reading technological nationalism less as a nation-building ideology and more as a widely diffused cultural discourse, Kroker finds in this discourse notes of ambivalence and anxiety; he sees technological nationalism as “the essence of the Canadian state and . . . the Canadian identity,” an effect of Canada’s geohistorical position between “the ‘technological imperative’ in American empire and the classical origins of the technological dynamo in European history” (7, 10). In its positioning of Canadian nation building amidst the cross-border
proximity of the United States, the transatlantic reach of Europe, and the unevenly developing regime of globalization, technological nationalism is not unlike a theory of Canada’s postcoloniality. The “Canadian discourse on technology,” according to Kroker, “thrusts us into the centre of a debate of world significance” over issues of “neotechnical capitalism” and “global media system[s]” (18)—issues now widely recognized as integral to postcolonial globalization.

Questions of the global occur with special stress in Kroker’s discussion of McLuhan, in whose work Kroker sees an ambivalent “technological humanism”: a markedly ambivalent mix of optimism for a better technological tomorrow and anxiety over the present “processed world of technology” (60). In Kroker’s account, McLuhan keeps a wary but hopeful ear pressed to the ground of the global village. The concept of technological nationalism thus demonstrates a rudimentary Canadian postcolonial perspective, and sets a suggestive ideological scene for this reading of Canadian adaptations of *Frankenstein*, in which the work of McLuhan and the discourse of technology figure prominently. Tellingly, a 2010 public opinion poll described its “statistical amalgam” of “the qualities Canadians have told us they want in a leader” as “an ideal political Frankenstein” (Graves 2010).

However, as with so much other critical writing on technology, Kroker leaves this and other core keywords unproblematized. And, besides technology, Kroker holds Canada and nation to be self-evident. This nationalist assumption is problematic for both postcolonial criticism and Canadian popular culture alike. Postcolonial studies in Canada have mounted some of the most forceful critiques of nationalism, especially as manifested in official multiculturalism: the Canadian state’s policy to promote cultural and racial diversity. Popularly and officially celebrated as a defining characteristic of Canadian nationalism, multiculturalism is also “the strict ideological correlate of transnational capitalism” (Lazarus 1999, 223). For postcolonial critics, Canadian official multiculturalism amounts almost to a Frankensteinian figure: an experimental, ideological state apparatus that assembles a culturally differentiated body politic into a national “fantasy of unity,” while mystifying the neoliberal political economy of precarious, privatized, and poorly paid work that this apparatus serves. Multiculturalism’s fantasy of diversity masks the realities of racialized difference; it
mobilizes and manages the flows of exploitable labour that sustain the
flexible accumulations of global capital (Bannerji 2000, 87).

The problematization of nationalism in Canadian popular culture
assumes a more conventional, even colonial character, encapsulated in
the diffident, sardonic slogan “as Canadian as possible under the circum-
stances”: the winning entry in a 1970s CBC contest to complete the phrase
“as Canadian as . . . .” Such a slogan signals both the colonially conditioned
cliché that Canada has no culture, and the perennially present danger that
the United States poses to Canadian sovereignty. To appreciate this slogan
as a good synopsis of Canadian popular culture, though, we need to explore
how the thesis of media imperialism describes Canadian popular culture’s
historical and economic conditions.

As theorized by Oliver Boyd-Barrett (1977), the media imperialism
thesis posits “the unidirectional nature of international media flows
from a small number of source countries” (Lorimer, Gasher, and Skinner
2008, 287). Although the thesis has been challenged for its deterministic
model of unilateral cultural power—thus neglecting the appropriations
of “imperial” media products by its target audience “colonies”—I think
that a postcolonial approach to analyzing Canadian cultural production,
amidst the high-pressure state of US-Canadian trade relations and their
implications for Canadian sovereignty, warrants a critical retrieval of the
media imperialism thesis, which not only describes a model for cultural
exportation but suggests that such trade is intimately connected to political
takeover. A postcolonial redeployment of the media imperialism thesis
recognizes these processes: the uses of cultural production as a tool of
empire and hegemony; the adoption of imperial structures and strategies
by transnational conglomerates; and the constant, increasing pressure by
US corporate lobby groups to liberalize trade with—or, in other words,
exploit—Canada in everything from cultural products (viewed by corpor-
ate lobbies as multiplatform intellectual property), to health care (viewed
as a market, not a public service), to water (viewed as a commodity, not
a human right). Since US hegemony propagates the notion that capital-
ism and democracy are mutually constituted (not mutually antagonistic,
as political economic analysis actually shows them to be), the difference
between media and political imperialism collapses, when viewed from a
Canadian perspective.
On the political, economic, and cultural fronts, Canada depends on US interests and industry in material ways that compromise the northern state’s political sovereignty and render its relationship to its southern neighbour ambivalent and conflicted, as well as effectively nonnegotiable. This relationship is analyzed anxiously from north of the forty-ninth parallel, while being ignored or misrecognized from the south: “Americans have an amazing tendency to assimilate Canadian work to American experience. . . . Canada doesn’t exist as a national entity to the U.S.” (John Greyson, quoted in Marks 2005, 198).

If Canada doesn’t exist as a nation from the US perspective, then it can hardly claim a distinct cultural existence on that account. In fact, in a global context, the US entertainment industry has become virtually synonymous with “popular culture” itself; the United States is the global leader, by a wide margin, in net royalty and license fee exports—the earnings made in payments for the authorized use of intellectual properties (SASI Group and Newman 2006). Hollywood was one of the first globalized cultural industries, and Canada’s relationship with Hollywood is long-standing and conflicted (Gasher 2002). Canada provides Hollywood with cheap and abundant film industry services, labour, and resources. Canadian shooting locations are not just conveniently close to Hollywood, but actively promote themselves as stand-ins for US locations, as sites primed for colonization: “largely unpopulated place[s] full of scenic wonders and infinite resources” (Rutherford 2005, 106). The predominance of the United States in popular cultural production is indicated by Canadian media and culture consumption patterns: English-speaking Canadians consume far more American than domestic media products. The predominance of US content on Canadian screens is about more than what Aniko Bodroghkozy calls, however rightly, “our taste for American popular culture” (2002, 570); it is, more importantly, a specific material effect of neoimperial trade economics. US media companies export their products to foreign carriers for a fraction of what they charge US carriers, making it cheaper for Canadian broadcasters to buy US imports than to finance domestic production—however popular that domestic content may be.

As Peter Grant and Chris Wood explain, these “curious economics” of globalized popular culture have occasioned state policies that protect cultural sovereignty and diversity of expression, which would otherwise be destroyed by narrow adherence to free-market ideology. Canada has kept
its own cultural sector exempt (so far) from free-trade agreements, and it has developed a policy tool kit for stimulating domestic popular cultural production, on the premise that state investment in cultural production builds nationalism and sovereignty (2004, 386–88). In economic terms, the popularity of a cultural product is productively theorized as a paradox: what is popular is what a publisher or company thinks will sell well; however, no one can predict what will sell well. But popular culture is a matter of ideology as well as “curious economics” (2004, 44). Popular culture is a “self-conscious term created by the intelligentsia and now adopted by the general public to mark off class divisions in the generic types of culture and their intended audience” (Jenkins, McPherson, and Shuttac 2002, 28). This class-based concept of popular culture remains as ideologically powerful as mass production is economically material to the ways in which popular culture can articulate national imaginings.

And in Canada, the discourse and production of popular culture relate to nationalism under postcolonial and neocolonial Anglo-American paradigms of culture. Canada’s tool kit of public media, content quotas, and funding agencies also includes some instruments for supporting Canadian scholarly as well as popular culture; however, Social Sciences and Humanities Research Council (SSHRC) funding for Canadian cultural studies research has only been formalized within the last decade. This belated recognition of Canadian cultural studies is a symptom of the field’s own postcolonial historical neglect by a national intellectual elite that has privileged Arnoldian ideals of culture over and against American industries of entertainment, seen as a threat to Canada’s national sovereignty (Rutherford 2005, 105).

Notwithstanding the dismissal of media imperialism by communications scholars, cultural and literary studies have picked up and built on it in researches informed by theories of nationalism, postcolonialism, and globalization (Mookerjea, Szeman, and Farschou 2009). Postcolonial readings of Canadian popular culture sustain the media imperialism thesis not despite but due to Canada’s ambivalent relationship to US popular culture. In a critique of Canadian cultural policy, Donna Pennee recounts how Canadian foreign policy has deployed “‘culture’ from the Cold War to ‘the Market Wars,’ from the explicitly ‘ideological’ threats to national security, to the explicit but apparently nonideological threats of global capitalism” (1999, 196). As Pennee shows, one paradigm of culture is represented by
the state’s leverage of culture as security: “The history of the nation-state’s use of culture in foreign policy,” Pennee writes, “can be read as a sort of barometer of change in the status of nation-statism, in the means of international relations, and in determinations of what is at stake in security debates as power relations shift from the Cold War to the (unnamed as such) Market Wars” (1999, 196).

Laura Marks employs Homi Bhabha’s model of pedagogy and performance in national identity to explore how “the little performances that constitute Canada insinuate themselves into the massive national fiction that constitutes the United States” (2005, 197). Marks explores American images of Canada, and observes what she calls the “little bit off” quality in Canadian images, seen from a U.S. perspective”: Canada’s identity-with-a-difference, in metonymic terms, poses a “subversive potential” in “American contexts,” with “the detail” of Canadian difference making “it possible to question the whole” ideological apparatus of US nationalist identity (2005, 198). This kind of ironic signification is represented in the performances of Daily Show reporters Bee and Jones, whose Canadian citizenship was a running joke on the show. Conversely, looking at Canadian images of America, Bodroghkozy arrives at a similar conclusion: “It is a foundation of fine details, typically unnoticed by non-Canadians, upon which Canadians have built their shaky edifice of national identity” (2002, 579).

Diana Brydon has forged important links between postcolonialism and globalization studies; alluding to the vexed question of national sovereignty and the US government’s targeting of postcolonialism “as yet another enemy of US patriotism,” Brydon succinctly reaffirms the urgency with which “postcolonial critique continues to pose a challenge to the new incarnations of Empire” (2004, 693). The perspectives on nationalism and media imperialism developed in postcolonial research like that surveyed here represent one way of “doing the national differently” (Pennee 2004, 83), by adding a nuanced sense of cultural and economic globaliza­tion to Canadian cultural studies’ established materialist focus on the institutions and media of cultural production.

An adequately nuanced postcolonial reworking of media imperialism amidst globalization can also recognize that it is not a one-way process. While the exponentially larger cultural economies of the United States and the United Kingdom have historically colonized and continue to
colonize Canadian popular culture, there are ways in which Canadian popular culture has infiltrated, occupied, and colonized the global flows of cultural production and reception. Canadian *Frankensteins* represent one trajectory for such infiltrations. Likewise, a properly nuanced postcolonial approach to Canadian popular culture needs to remain critically self-reflexive in how it handles texts drawn from a spectrum of class, gender, and racialized positions across the field of cultural production—how it contextualizes both mainstream and marginalized texts in relation to power structures. Postcolonial studies in Canada have conventionally eschewed popular cultural subjects on account of their very popularity, their centrality to the mainstream culture of the implicitly white, capitalist, patriarchal “Great White North.” That is, the cultural centrality of Canadian popular texts has relegated them to the margins of postcolonial studies, which are centred in mapping the cultural margins. But because postcolonial methodologies are demonstrably among those best equipped to attend to globalization, adaptation, and culture’s articulations of power, a postcolonial perspective can and should be brought to bear on texts and practices on the cultural peripheries *and* on those at the cultural centre, as well as on the feedback between them.

**Canada and Globalization**

Outlining the postcolonial contexts of Canadian popular culture in this way means simultaneously outlining Canadian popular culture’s involvements with globalization, understood here as an intensification of international flows of money and labour, whose chief beneficiaries are multinational corporations (Appadurai 1990, Sassen 2000).

Globalization is important for contextualizing Canada’s political and cultural economies, and for understanding the popular discourse of technology: virtually any technological risk or threat is represented as an intrinsically global threat. The popular understanding of technology in a global sense is prefigured in Shelley’s novel, as Victor Frankenstein imagines, as the ultimate result of his research, that a “race of devils would be propagated upon the earth” (Shelley [1818] 2012, 174). Since then, *Frankenstein* has been used to sound the alarm over technologies typically understood as global in their reach and risks, from nuclear power (Morton 2002, 56) to file sharing: “digital piracy is Hollywood’s own digital Frankenstein,” writes one film industry observer (Sickels 2009, 22). Even
the chief agent and institution of globalization itself, the modern corporation, has attracted *Frankenstein* analogies and figurations since the Great Depression. Mitchell Dawson’s 1930 magazine article “Frankenstein, Inc.” expresses the author’s thoroughgoing suspicion of corporations in most sectors, such as “the gigantic press Franksteins which now control the news and public opinion.” Dawson envisions “the corporate Frankenstein” inaugurating an age in which “law and government will be nullified” (1930, 276, 279): an age that scholars have since theorized as that of present-day globalization. Frankensteinian representations of corporate business after the Depression resonate profoundly today, in Canada and globally (McCutcheon 2011).

Pertinent to the present discussion is the interdependence, even the mutual constitution, of technology and globalization discourses: neither term would mean entirely what it does, today, without being echoed in the other. Globalization theory privileges technology in its models of transnational political and cultural economy, chiefly for facilitating the mobile exploits of capital. Jonathan Beller reads the technological imperative as a core value of globalization in the popular Frankensteinian image of the cyborg, which he describes as “the intersecting of the human being from anywhere in the world . . . and the technology (military, industrial, and informational) endemic to transnational capitalism” (1996, 195). Arjun Appadurai coins the term “technoscape”—among other related “-scapes” of globalization (e.g., “financescape,” “mediascape”)—to name “the global configuration, also ever fluid, of technology, and of the fact that technology, both high and low, both mechanical and informational, now moves at high speeds across various kinds of previously impervious boundaries” (1990, 297). Appadurai’s usage of “technology” here, like his coinage of “technoscape,” exploits a sense of technology as uncontainable leak—as contagion—that, as the subsequent chapters will show, arises from the characterization of Frankenstein’s creature as modernity’s founding image of technology, and from McLuhan’s imagery of technology as manufactured, monstrous, and global in its impact.