PHONOGRAPH, SHORTHAND, TYPEWRITER: HIGH PERFORMANCE TECHNOLOGIES IN BRAM STOKER'S *DRACULA*

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Abstract

The theoretical concept of technological performance has emerged only recently with the publication of Jon McKenzie's *Perform or Else: From Discipline to Performance* in 2001. McKenzie develops a general theory of performance based around the development of three performance paradigms: cultural performance, organizational performance (or performance management), and technological performance. In his examination of the techno-performance paradigm, he focuses primarily on late twentieth and early twenty-first century 'high performance' technologies such as computers, guided missiles and space shuttles. While he acknowledges that the concept of performance does not apply only to technologies in this period, his analysis implicitly suggests that high performance technologies are a unique invention of the modern age. This essay confronts McKenzie's restriction of techno-performance to the post-WWII period by demonstrating how technologies performed and were seen to perform in the late nineteenth century through a techno-performance reading of Bram Stoker's *Dracula* (1897). The late Victorian period saw startling innovations in information and communication technology (such as the overseas telegraph, the typewriter, and the gramophone), which were marketed as high performance technologies, though not in those words. To contextualise my reading of *Dracula*, I examine contemporary Victorian advertisements for communication technologies to demonstrate how such technologies were viewed as high performance products by Victorian advertisers and consumers.

Technology in *Dracula* has usually been read as a metaphor. I employ McKenzie's concept of techno-performance to examine the performative functions of technology in *Dracula* that have not yet been explored by Victorianist scholarship. McKenzie notes two challenges posed by techno-performance: first, the challenge posed by a developer to his/her technological product, to perform or be classified as obsolete; and, second, the challenge posed by technology to its user to perform or be regarded as outmoded. I argue that Stoker's *Dracula* takes up both of these challenges. Emergent technologies sometimes perform in unexpected and potentially disruptive ways, much like the space shuttle Challenger cited by McKenzie; at the same time, such technologies oblige their users to perform in unexpected and disruptive ways. This essay examines emergent technologies in *Dracula* to highlight the relationship between individual and technological performance in the late nineteenth century.

When we reflect on performance in the Victorian period, we are unlikely to consider the model of technological performance. Technological performance itself is not a particularly well known concept: it has only recently emerged with the publication of Jon McKenzie's *Perform or Else: From Discipline to Performance* in 2001. McKenzie develops a general theory of performance based around the development of three performance paradigms: cultural performance, organizational performance (or performance management) and technological performance (or techno-

performance). This essay will confront McKenzie's restriction of techno-performance to the post-WWII period by demonstrating how communication technologies performed and were seen to perform in the late nineteenth century through a techno-performance reading of Bram Stoker's *Dracula* (1897). Technology in *Dracula* has usually been read as a metaphor, but I will employ McKenzie's concept of techno-performance to examine the performative functions of technology in *Dracula* that have not yet been explored by Victorianist scholarship. I will begin with a critique of McKenzie's concept of techno-performance. Through an examination of depictions of communication technologies in late Victorian print media, I will demonstrate that the technologies we see in *Dracula* were conceived of by the late Victorians as high performance technologies. I will then use my expanded version of techno-performance to conduct a techno-performative reading of *Dracula*, and to examine emergent technologies to highlight the relationship between individual and technological performance and performative failures in the late nineteenth century.[1]

In his examination of the technological performance or *techno-performance* paradigm, McKenzie focuses primarily on late twentieth and early twenty-first century high performance technologies such as computers, guided missiles, and space shuttles. For McKenzie, 'high performance' technologies explore the limits of what is technically possible (particularly in terms of speed, capacity, and efficiency), so that what is high performance at the time of an object's production will no longer satisfy the requirements of high performance years later. While he acknowledges that the concept of high performance does not apply only to technologies in this period, his analysis implicitly suggests that high performance technologies are a unique invention of the modern age, particularly with the development of what he refers to as the 'military-industrial-academic complex'.[2] Consequently, McKenzie examines the 'sense of performance used by engineers, technicians, and computer scientists' rather than the sense of performance employed by consumers and users of technology, and is mostly concerned with 'computer, electronics, and telecommunication industries'.[3] I would argue, however, that high performance technologies existed long before the invention of the digital computer, the smart phone, or the smart bomb. As Friedrich A. Kittler suggests, late nineteenth-century communication technologies such as the phonograph or the typewriter 'ushered in a technologizing of information that, in retrospect, paved the way for today's self-recursive stream of numbers'.[4]

Stoker's novel depicts some of the startling innovations in information and

1 Scholars such as Carol A. Senf have examined how modern science and technology fail Dracula's protagonists so that they have to make use of older methods to stop Dracula; however, these studies do not consider the *performative* failures of technology in *Dracula*.

2 Jon McKenzie, *Perform or Else: From Discipline to Performance* (New York: Routledge, 2001), p. 24.

3 McKenzie, p. 10; p. 11.

4 Friedrich A Kittler,, *Gramophone, Film, Typewriter*, trans. by Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999), p. xl.

communication technology, such as the typewriter, the gramophone, long-distance telephone lines, and undersea telegraph cables, that emerged in the late Victorian period. Herbert Sussman argues that 'the Victorians loved machinery' and that they regarded the advances of new technology with 'pride, admiration, [and] awe'.[5] The Victorians had a conflicted attitude towards emergent technology, however: many Victorians regarded the advance of increasingly 'high performance' technology with apprehension, even predicting futures in which the earth would be controlled or devastated by sophisticated machines, as in H. G. Wells's *The War of the Worlds* (1898) or in the chapter titled 'Shadows of the Coming Race' in George Eliot's *Impressions of Theophrastus Such* (1879). In particular, the Victorians were concerned about the development of machines that could perform if not humanity then something like it: as Sussman suggests, the Victorians 'were preoccupied with the mechanical/organic problematic raised by the unprecedented self-acting machines of the textile mills as well as the Babbage Engines, which transformed the meaning of 'computer' from a human being who calculated to a machine that thinks'.[6] In addition to the industrial technology Sussman describes, the late nineteenth century saw advancements in communication and information technologies that resulted in the dissemination of mass produced commodities that were also high performance technologies.

This essay will focus on the three high performance technologies featured most prominently in *Dracula* and will provide a degree of historical context for each: shorthand, which Mina and Harker use to write their journals and letters to each other; the phonograph, which Dr. Steward uses in his medical practice and the typewriter, which Mina uses to compile various documents into a coherent narrative. Carol A. Senf suggests that Stoker was an enthusiastic proponent of technological advance, and that all but one of his literary works represent optimistic views of science and technology.[7] In *Bram Stoker's Notes for Dracula*, Robert Eighteen-Bisand and Elizabeth Miller document that Stoker integrated current communication technologies such as the phonograph and the typewriter from the start of the novel's composition.[8] Although the author of an unsigned review in *The Spectator* included stenographic handwriting or shorthand as an example of the 'up-to-dateness' of *Dracula*, shorthand was actually an ancient method of transcribing speech phonetically, with early forms dating back to Greek, Roman and European Renaissance history.[9] While shorthand had existed in earlier periods, it became much

5 Herbert Sussman, 'Machine Dreams: The Culture of Technology', *Victorian Literature and Culture* 28.1 (2000), 197-204 (p. 197).

6 Sussman, p. 202.

7 Carol A Senf,'*Dracula* and *The Lair of the White Worm*: Bram Stoker's Commentary on Victorian Science', *Gothic Studies* 2.2 (2000), 218-31.

8 Robert Eighteen-Bisand and Elizabeth Miller, *Bram Stoker's Notes for Dracula: A Facsimile Edition* (London: McFarland, 2008), p. 35.

9 Bram Stoker, *Dracula* (1897), ed. by Maurice Hindle (London, UK: Penguin, 2003), p. 483;

more prominent in the nineteenth century, which E. H. Butler describes as being 'the most prolific [century] ever known in shorthand invention'.[10] Certainly, shorthand is represented as a nineteenth century technology in *Dracula*: Harker describes the act of 'writing in my diary in shorthand' as evidence that 'It is nineteenth century up-to-date with a vengeance'(p. 43).

The second 'up-to-date' technology incorporated into *Dracula*'s self-reflexive narrative is Edison's phonograph, which both recorded and reproduced sound – unlike Berliner's later invention, the gramophone, which could only reproduce sound recordings.[11] Edison indicated that the phonograph could be used for taking dictation, recording legal testimony, teaching languages and recording correspondence and even military orders.[12] It seems likely that Stoker first encountered phonographic recordings while visiting Tennyson with Henry Irving in 1890, and later incorporated the technology into his novel.[13] There are two phonographs in *Dracula*: the first belongs to Dr. Steward and is used for making clinical records; the second belongs to Lucy Westenra, presumably used for social and entertainment purposes, which Dr. Steward also employs. Jennifer Wicke suggests that Dr. Stewart's phonographic diary is 'a technologized zone of the novel, inserted at a historical point where phonography was not widespread'; however, Edison had invented the original tin foil phonograph in 1877 and the more recent wax cylinder model described by Stoker in *Dracula* was invented in 1888.[14] According to Eighteen-Bisang and Miller, the practice of using the phonograph to record clinical notations had become common at the time Stoker started to write the novel, and Kittler describes Dr. Steward's phonograph as belonging to a category of 'recently mass produced' technology.[15]

Like the phonograph, the typewriter was a nineteenth-century invention. In the later nineteenth century, companies in England, France, Germany, and the United States competed to produce the best, most efficient, most affordable and most versatile machines. Mina's typewriter in *Dracula* represents the results of such intense competition, and its portability is represented as a recent innovation: in her journal, Mina writes 'I feel so grateful to the man who invented the "Traveller's" typewriter [...]. I should have felt quite astray doing the work if I had to write with a pen' (p. 372). At the time *Dracula* was written, the Hall typewriter proclaimed itself to be the only portable typewriter available [FIGURE 1]. Many typewriters in the late nineteenth century made similar claims, however: for instance, an 1897

Steven Roger Fischer, *A History of Writing* (London: Reaktion Books, 2001), p. 310. Subsequent references are to this edition, incorporated in the body of the text.

10 E. H. Butler, *The Story of British Shorthand* (London: Sir Isaac Pitman & Sons, 1951), p. 100.

11 Kittler, p. 3.

12 Ibid, p. 78.

13 Picker, John M, *Victorian Soundscapes* (Oxford: Oxford University Press, 2003), p. 125.

14 Wicke, Jennifer, 'Vampiric Typewriting: *Dracula* and its Media', *English Literary History*, 59 (1992), 467-93 (p. 470).

15 Eighteen-Bisang & Miller, p. 79; Kittler, p. 87.

advertisement for the Hammond Typewriter describes its product as 'Strong and Portable for Travellers' [FIGURE 2]. Mina's typewriter is not only portable; it is also capable of making multiple copies. Mina uses the 'manifold' function of her typewriter to make three copies at once (p. 239). Manifold paper was available in the late nineteenth century; according to Steven Fischer, carbon paper had been invented before 1880. [16] Although it was originally intended for making handwritten duplicates, manifold paper was also used to make typewritten copies. Mina's typewriter thus performs multiple functions: it enables the rapid production of printed text, it produces multiple copies at once, and it is portable for added convenience.


"HALL" TYPE-WRITER.

Price, £8 8s. Weight, 7 lb.
Size, 14 in. by 7 in. by 2½ in.

THE ONLY PORTABLE AND COMPLETE WRITING-MACHINE EXTANT. UNIQUE IN ITS SIMPLICITY.

HIGHEST AWARDS, LONDON, LIVERPOOL, NEW YORK, and PHILADELPHIA.

Guaranteed to do better work than any other Type-Writer in the world.

TESTIMONIAL.

Prospectuses, Testimonials, and all Particulars post-free from

WITHERBY & CO.,
74, CORNHILL, E.C, LONDON; AND
325A, HIGH HOLBORN.

FIGURE 1.

An advertisement for the 'Hall' Typewriter in the Illustrated London News, 1886.
(Reprinted in Whalley, Writing Implements)

16 Fischer, p. 282.

FIGURE 2.

An advertisement for the Hammond Typewriter in Strand Magazine, 1897.
(British Periodicals Database)

More than simply precursors to modern high performance technology, phonographs, stenography, and typewriters themselves functioned as high performance technologies and were marketed as such in the late Victorian periodical press. Late nineteenth-century typewriter advertisements are a case in point. McKenzie defines 'high performance' as the edge of what is technically possible; he describes high performance technologies as 'high-speed' and 'high-capacity'.[17] Late Victorian typewriter advertisements emphasised these same attributes. For instance, advertisements for the Hall and Hammond typewriters pictured in Figures 1 and 2 styled their products as cutting-edge technology by emphasising their portability. Similarly, an 1896 advertisement for the Williams typewriter in *The Review of Reviews* indicates that their typewriter has a 'capability for speed unequalled' in comparison with similar products (it is 'high-speed'), and notes that the machine 'Makes more and clearer carbon copies' than its competitors (it is also 'high-capacity') [FIGURE 3]. As Christopher Keep notes in his article on the typewriter in the late nineteenth century, the typewriter was 'primarily an instrument of speed' – an argument that is supported by the occurrence of typewriting speed trials in the 1880s.[18]

17 McKenzie, p. 98.
18 Christopher Keep, 'Blinded by the Type: Gender and Information Technology at the Turn of the Century', *Nineteenth-Century Contexts* 23 (2001), 149-73 (p. 150).

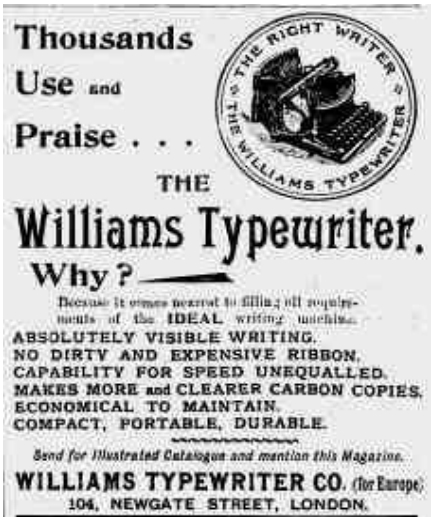

FIGURE 3.

An advertisement for the Williams Typewriter in Review of Reviews, 1896. (British Periodicals Database)

McKenzie also argues that techno-performance is based on 'effectiveness', which is measured 'in terms of executability, the technical "carrying-out" of prescribed tasks, successful or not'.[19] Evaluation of techno-performance is based on performance standards, or 'evaluative criteria agreed upon and recognized by members of a particular community and designed to be applicable across a wide variety of contexts'.[20] In the late nineteenth century, the agreed upon evaluative criteria of typewriter performance included portability (as demonstrated by the Hall and Hammond typewriter advertisements), speed, durability, low cost and the ability to make copies. For example, while the 1896 Blickensderfer typewriter was styled as 'an entirely new departure in Typewriter mechanism', the advertisement nevertheless participates in the standard evaluative criteria by arguing that the Blickensderfer typewriter is 'portable, [...] speedy, durable, and cheap' [FIGURE 4]. As technologies developed and innovations were made, according to McKenzie, there was a feedback process involving the 'ongoing comparison of predictions and performance'.[21] An 1890 advertisement for the Hall typewriter indicates that the machine has been 'remodelled and improved' and is now 'practically perfect' [FIGURE 5]; similarly, an 1896 advertisement for the Densmore typewriter challenges other manufacturers to match its own technological advances by asking potential customers if they 'want an up-to-date typewriter that challenges the world to produce its equal in modern improvements and conveniences' [FIGURE 6]. These examples suggest that late-

19 McKenzie, p. 97.
20 Ibid, p. 108.
21 McKenzie, p.107.

Victorian typewriter advertisements participated in the ongoing comparison process of techno-performance. Finally, McKenzie repeatedly observes performance must be balanced with other factors including 'cost, safety, and ease of maintenance'.[22] Many late Victorian typewriter advertisements demonstrate that the manufacturers have taken into account all these factors: the 1890 Hall typewriter is described as 'Cheap, Portable, [...] Easiest to learn, and Rapid as any' [FIGURE 5], whereas the 1896 Williams typewriter is considered to be 'compact, portable, [and] durable' [FIGURE 3]. While the word *performance* does not actually appear in these late nineteenth-century typewriter advertisements, it is nevertheless clear that the typewriter was marketed as a *high performance* technology.

FIGURE 4.

An advertisement for the Blickensderfer Typewriter in Review of Reviews, 1896 (British Periodicals Database)

22 Ibid., p.115.

FIGURE 5.

An advertisement for the Hall Typewriter in Blackwoods Edinburgh Magazine, 1890. (British Periodicals Database)

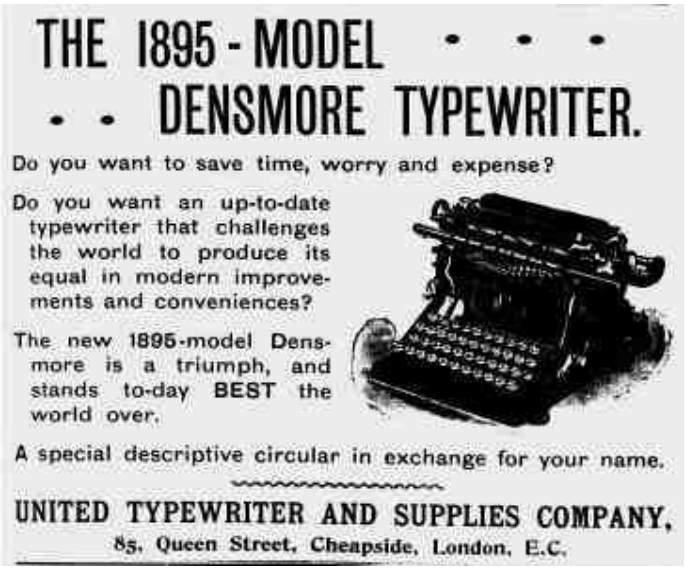

FIGURE 6.

An advertisement for the Densmore Typewriter in Ludgate, 1896. (British Periodicals Database)

Frayling suggests that 'Late Victorian readers seem to have read [*Dracula*] as an early piece of techno-fiction'.[23] Given the numerous emergent technologies found in the novel, this is hardly surprising, and yet modern scholarly accounts of technology in *Dracula* tend to regard it as a metaphor for something else rather than seeing it as something that serves a function in and of itself. Wicke reads technology in *Dracula* as a representation of mass media, where mass consumption (of texts) parallels vampiric consumption. David Punter's essay on 'Tradition, Technology, [and] Modernity' in *Dracula* only briefly touches on the topic of technology, despite its title.[24] For Punter, technology in *Dracula* represents the scientific rationality of modernity, in contrast with the unknowable and uncanny future.[25] Similarly, Menke and Kittler examine technology only in terms of how it is used to defeat Dracula and the monstrous past he represents.[26] I would argue that technology in *Dracula* represents not one but both sides of Punter's paradox of modernity: technology epitomises the scientific and rational in terms of its capacity for high performance, but it is also disruptive and uncanny, as exemplified by the numerous failed performances of technology in the novel.

Reading technology as merely a symptom of modernity relegates the function of technology in the novel to the status of setting. In contrast, a techno-performative reading of technology recognises the greater role technology plays in the novel. A techno-performative reading allows us to foreground the role of technology in literature, shifting its function from that of background object to central character. In some ways, techno-performance is an anthropomorphisation of technology: as McKenzie argues, 'In studying the effects of technologies, engineers and other applied scientists discuss performance in terms of behaviours [and] sensitivities [...] which the technologies exhibit in a given context'.[27] The anthropomorphisation of technology is not unique to the twenty-first century: as Sussman argues, 'The sense that machines were somehow alive grew through the nineteenth century, strengthened by innovations in automatic machinery, especially the development of feedback mechanisms'.[28] Although the communication technologies I examine in this paper does not fall into Sussman's category of 'nineteenth century [...] machines that could

23 Christopher Frayling, Preface, in *Bram Stoker's Notes for Dracula: a Facsimile Edition*, annotated and translated by Robert Eighteen-Bisand and Elizabeth Miller (London: McFarland, 2008), pp. vii-xii (p. viii).

24 David Punter, 'Bram Stoker's Dracula: Tradition, Technology, Modernity', *Post/modern Dracula: From Victorian Themes to Postmodern Praxis*, ed. by John S. Bak (Newcastle: Cambridge Scholars, 2007), pp. 31-41.

25 Ibid, p. 35.

26 See Richard Menke, *Telegraphic Realism: Victorian Fiction and Other Information Systems* (Stanford: Stanford University Press, 2008), p. 10 and Kittler, pp. 86-87.

27 McKenzie, p. 113.

28 Herbert L. Sussman, *Victorian Technology: Invention, Innovation, and the Rise of the Machine* (Santa Barbara: Praeger, 2009), p. 39.

act independently, regulate themselves, calculate, and even, it seemed, think' because they had to be operated by humans (typists, dictating voices, or shorthand writers), these technologies nevertheless performed in some uncannily anthropomorphic ways.[29]

A consideration of the challenges posed by the techno-performative paradigm demonstrates the central roles played by technology in late nineteenth-century examples of 'techno-fiction' such as *Dracula*. McKenzie notes two challenges posed by techno-performance: first, the challenge posed by a developer to his/her technological product, 'Perform – or else you're obsolete, liable to be defunded, junk piled, or dumped on foreign markets'; and second, the challenge posed by technology to its user, 'Perform – or else you're outmoded, undereducated, [...] a dummy'.[30] An 1897 advertisement for the Empire Typewriter makes this second challenge clear by stating emphatically, 'If you with to be with the times, use a typewriter. If you wish to lead the times, use an Empire' [FIGURE 7]. Readers of this advertisement who do not use a typewriter are thus styled as behind the times. Stoker's *Dracula* takes up both the techno-performative challenges outlined by McKenzie. Emergent technologies sometimes perform in unexpected and potentially disruptive ways, much like the space shuttle Challenger cited by McKenzie: on 28th January 1986, what was intended to be a display of the triumph of high performance technology with the launch of the Challenger space shuttle became a 'high performance disaster' caused by 'the failure of a "high performance field joint" on the right Solid Rocket Booster'.[31] At the same time, high performance technologies oblige their users to perform in similarly unexpected and disruptive ways. A twenty-first century example of this phenomenon is the way in which Apple computers force former PC users to adjust their computing behaviours (for instance, by resisting the urge to click on the right mouse button, which does not exist on Apple mice). In *Dracula*, characters are often forced to shift from using one technology with which they are comfortable to using another technology that obliges them to alter their performances of research and journal writing.

29 Sussman, p.49.
30 McKenzie, p. 12.
31 Ibid., p. 141.

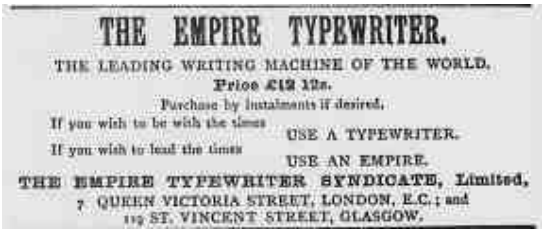

FIGURE 7.

An advertisement for the Empire Typewriter in Saturday Review of Politics, Literature, Science and Art, 1897.
(British Periodicals Database)

The challenge to technology to perform involves the evaluation of that technology according to socially or culturally agreed upon standards. In *Dracula*, techno-performance is evaluated according to four criteria: accuracy, efficiency, preservation and authenticity. I will discuss the first three criteria here, and I will return to the fourth – authenticity – later in this essay. Characters in Stoker's novel exhibit an obsession with accuracy throughout the novel: Harker describes the action of 'entering accurately' his experiences in a diary as soothing, and Mina attempts to record her interview with Dr. Van Helsing '*verbatim*' (p. 44, p. 194)[32] Harker and Mina's association with shorthand techniques in the novel implicitly suggests that emergent nineteenth-century communication technologies allow for greater accuracy. The phonograph is also seen as an instrument that enables precision: in the first entry of his phonographic diary, Dr. Steward notes that if, in the future, he should want to trace his patient's progress '*accurately*,' he should incorporate his medical notes into his phonographic journal (p. 69).[33] In the preface to Chapter One, the reader is informed that 'There is throughout no statement of past things wherein memory may err, for all the records chosen are exactly contemporary, given from the standpoints and within the range of knowledge of those who made them' (p. 6). In *Dracula*, technology makes the compilation of an infallibly accurate document possible.

The efficiency of transcription and preservation of transcribed materials is also a key evaluative criterion for the technologies that appear in *Dracula*. Both shorthand and phonography are presented as efficient methods of recording information: shorthand is compared favourably to cursive writing, which is described as 'cumbrous' and 'old,' and Mina suggests that Dr. Steward's phonograph 'beats even shorthand', assumedly because it is an even more efficient and accurate method of recording one's thoughts (p. 386, p. 235). In addition to recording information quickly and efficiently, shorthand prevents the unsanctioned transmission of information because it limits access, given that most characters in the novel cannot read

32 Italics in original.
33 Italics in original.

shorthand; however, it does not prevent the destruction of the information that has been transcribed. Early in the novel, Harker realizes that his diary 'would have been a mystery to [Dracula] that he would not have brooked. He would have taken or destroyed it' (p. 48). When Dracula sees the 'strange symbols' of stenography in a letter Harker had intended for Mina, he confirms Harker's earlier prediction and burns the letter immediately (p. 50). Dr. Steward's phonograph is also intended to preserve information: in this case, his observations concerning his patient Mr. Renfield, and later his more wide ranging journal entries; however, Dracula burns the phonographic cylinders, leaving only a copy of the typed manuscript behind. It is only the proliferation of copies, enabled by the manifold function of Mina's typewriter, that saves information from total erasure.

To answer the second challenge of techno-performance, the call to performance posed by technology to its users, *Dracula*'s characters must work to keep pace with the continual technological advancement of the late Victorian period. New technology requires practice, as Mina demonstrates: in addition to developing her typewriting skills, Mina practices shorthand 'very assiduously' (p. 62). She and Harker write letters to each other in shorthand, and Harker keeps a travel journal in shorthand to share with Mina when he returns home. Characters that do not practise appear 'outmoded', as McKenzie's model of techno-performance suggests. Senf notes that both Van Helsing and Dracula are 'handicapped' by their unfamiliarity with technology, despite the fact that the former is a prominent scientist and the latter has attempted to familiarise himself with English social life and customs.[34] Dr. Van Helsing is not able to perform in the way the phonograph asks, and dictates a letter as if he were writing it on paper rather than speaking into a phonograph: he begins with a salutation 'This is to Jonathan Harker,' proceeds with only grammatically complete and correct sentences, and ends by verbally signing his name 'Van Helsing' (pp. 335-6).When Harker later relays this message to Mina, he 'reads' it rather than *playing* it for her (p. 336). This odd word choice could simply be an error on Stoker's part, suggesting that he was conditioned by the communication technology he used to write the novel to perform in a certain way; or, it could be an acknowledgement that the characters in the novel have difficulty keeping up with the advance of technology.

Even when characters appear to be familiar with technological innovations, emergent technologies often demand that their users perform in a manner different from what would otherwise be customary. Dr. Steward's phonograph diary often contains sentence fragments and ellipses: for example, when describing Mr. Renfield's condition he states, 'Sanguine temperament; great physical strength; morbidly excitable; periods of gloom ending in some fixed idea which I cannot make out' (p. 69). Because the phonograph records spoken rather than written language, it inevitably asks its users to perform the act of recording a journal or diary differently from how one would compose a written record. A similar linguistic shift is evident in

34 Carol A.Senf, *Dracula: Between Tradition and Modernism* (New York: Twayne, 1998), p. 91.

the use of telegrams. Like our twenty-first century text messaging technology, the telegraph puts the price of single words at a premium, so users are asked to transmit their messages in as few words as possible. In the case of twenty-first century text messaging, the user would be required to reword a simple statement such as 'I have to go to the store to pick up some groceries, but I will be right back' into something much more concise such as 'Have 2 go 2 store. BRB'. Similarly, in *Dracula*, characters reformulate their telegraphed messages in the interest of brevity: for instance, in a telegraph to Dr. Steward, Arthur Holmwood writes 'Am summoned to see my father, who is worse. Am writing. Write me fully by tonight's post to Ring. Wire me if necessary' (p. 120). Emergent technologies, whether they are the products of the nineteenth century or the twenty-first century, ask their users to perform language differently.

As technologies condition their users to perform in a certain manner, the users become dependent on these new technologies. When Dr. Steward is treating Lucy Westenra at her home, he uses her phonograph to record his journal entry, rather than simply writing it down. Interestingly, he speaks of his phonographic diary as if it were a written document. Part way through the novel, he ends his diary, stating, 'If I ever open this again, it will be to deal with different people and different themes' (p. 188). The verb 'opening' suggests the opening of a book rather than a phonograph. At the end of this entry, he states, 'I say sadly and without hope, FINIS' (p. 188).This 'finis' is as much a visual marker as it is a linguistic marker, so it is interesting that Stoker has Dr. Steward insert it at the end of his phonographic journal, which is recorded in a non-visual medium. Once characters are conditioned to perform in the manner demanded by a particular technology, they have difficulty reverting to an older form of communication. When travelling, Dr. Stewart is unable to bring his phonograph with him, and must use pen and paper instead: he complains, 'How I miss my phonograph! To write diary with a pen is irksome to me' (p. 357). When he does use the older technology of pen and paper, traces of the oral style of communication demanded by the phonograph (marked by ellipses and incomplete sentences) remain in Dr. Steward's written diary: several of his written diary entries begin with sentence fragments.

In addition to outlining the challenges posed to technology and its users by the techno-performance paradigm, McKenzie identifies certain high performance technologies as *metatechnologies*. He provides a twofold definition of metatechnology: first, it is 'a technology used to design, manufacture, and evaluate other technologies'; and second, it is a technology that 'not only performs [but also] helps produce performances of other products and materials and thereby greatly extends the domain of technological performance'.[35] McKenzie's example of a metatechnology is the modern computer: in addition to performing its own tasks, it is used to 'design, manufacture, and evaluate other technologies'; computer technology

35 McKenzie, p. 11.

has also been incorporated into a plethora of other technologies, from telephones to automobiles. I would argue that earlier technologies functioned in ways similar to twenty-first century metatechnologies. While the typewriter is not used to design or manufacture other emergent communication technologies in *Dracula*, it certainly assists in the production of the performances of other technologies. The typewriter functions as what McKenzie describes as a 'hypermediating media': the typewriter is the technology through which all other technologies in the novel (stenography, phonographic records, and telegraphed messages) are produced and made accessible to the characters and to the reader.[36] As only two of the novel's characters are able to read shorthand, all the shorthand documents mentioned in the novel must be processed by the typewriter to make them accessible to a broader audience. This transcription process supposedly saves time: as Mina notes, 'I am so glad I have type-written out my own journal, so that in case [Dr. Van Helsing] asks about Lucy, I can hand it to him; it will save much questioning' (p. 193). Surely it would take as much time to speak with Dr. Van Helsing as it would to type out her journal; however, Mina sees emergent technology as inherently efficient, even when it might not be. The typewriter is also used to process Dr. Steward's phonographic recordings. A failing of the phonograph is identified when Dr. Steward realizes he does not know how to locate any particular entry in his diary, despite the fact that he has been recording on it for several months. Like stenographic records, phonographic records must be transcribed by typewriter to make them readily accessible in the most efficient manner. Another failing of the phonograph is noted after Mina listens to Dr. Steward's recordings: as Mina informs him,

> That is a wonderful machine, but it is cruelly true. It told me, in its very tones, the anguish of your heart. [...] No one must ever hear them spoken again! See, I have [...] copied out the words on my typewriter, and none other need now hear your heart beat, as I did. (p. 237)

Here, the typewriter performs the act of removing the speaker's 'soul' from the recorded information, a process that prepares the text for wider dissemination.

As these passages suggest, *Dracula* contains many examples of techno-performative failures, in which communication technologies fail to perform as asked by their users. Considering that the performances of emergent technology are continually evaluated and fed back into the production process, McKenzie's observation that technology can only be perfect on paper or in one's imagination rings true for technology in the nineteenth century as well as technology in the twentieth and twenty-first centuries.[37] The high performance technologies of the Victorian period emerged from a larger context of widespread technological invention and

36 McKenzie, p. 22.
37 Ibid., p. 122.

innovation. As Sussman points out, Victorian technology 'did not exist in a fixed form, but evolved rapidly within a culture that supported innovation'.[38] Because *Dracula* emerges within a cultural milieu in which new technologies were not only expected to advance but also to fail occasionally in that advancement, techno-performative failures, both partial and total, inevitably occur. In the case of the phonograph, the technology available in the late nineteenth century could only 'recor[d] indiscriminately what was within the range of microphones [...] thereby shift[ing] the boundaries that distinguished noise from meaningful sounds'.[39] As we see in *Dracula*, the phonograph recorded sounds and meanings that were never intended to be recorded, such as the sounds of Dr. Stewart's anguished heart. In 'Memory and Phonograph' (1880), Jean-Marie Guyau argued that 'the phonograph is incapable of reproducing the human voice in all its strength and warmth. The voice of the apparatus will remain shrill and cold; it has something perfect and abstract that sets it apart'.[40] In this example, the phonograph's performance fails because the sound it produces is not as 'human' as desired; in *Dracula*, however, the phonograph fails because it performs a voice that is all too human.

Other techno-performative failures occur when, as McKenzie suggests, certain evaluative criteria have to be sacrificed in favour of others. In *Dracula*, the kinds of accessibility and legibility made possible by the typewriter exist at the expense of authenticity. On the last page of the novel, Harker observes that 'in all the mass of material of which the record is composed, there is hardly one authentic document; nothing but a mass of type-writing' (p. 402). Punter argues that the narrative is 'validated by typewriter,' but the opposite is true: because the typewriter is unable to perform the bodily traces of older technologies, it cannot assert its own authenticity or authority.[41] Kittler argues that 'For mechanized writing to be optimized, one can no longer dream of writing as the expression of individuals or the trace of bodies. The very forms, differences, and frequencies of its letters have to be reduced to formulas'.[42] If we apply Kittler's notion of bodily traces to the novel, we see that handwriting, shorthand, and phonography retain traces of the author's body, but these traces are either illegible or, in the case of the phonograph, too legible. While the typewriter's performance is 'high' in terms of legibility, efficiency, and preservation, it is incapable of performing authenticity.

In some ways then, *Dracula* is story of failed techno-performances: stenography fails

38 Sussman, p. 5.

39 Geoffrey Winthrop-Young, and Michal Wutz, 'Translator's Introduction: Friedrich Kittler and Media Discourse Analysis', in *Gramophone, Film, Typewriter*, trans. by Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford UP, 1999), pp. xi-xxxviii (p. xxvi).

40 Jean-Marie Guyau, 'Memory and Phonograph', in *Gramophone, Film, Typewriter*, trans. by Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999), pp. 30-33 (first publ.in *Revue philosophique de la France et de l'étranger* 5 (1880), 319-22) (p. 32).

41 Punter, p. 40.

42 Kittler, p. 16.

because it is inaccessible to readers (although this is also a positive attribute because it keeps information safe from Dracula); the phonograph fails because it reproduces not only the words of the speaker but also his undisguised emotions; and the typewriter fails because it cannot reproduce the bodily traces which certify the authenticity of the documents produced. In performing according to creator's specifications and users' demands, emergent technologies also fail to perform because they are still participating in the feedback loop of invention and innovation. At the same time, emergent technologies invite performative failures from users who are unaccustomed to the newness of technological machines and procedures. Using McKenzie's concept of techno-performance to examine the roles and functions of technology in Victorian literature enables us to move away from seeing technology as merely background objects or symptoms of modernity. Techno-performance allows us to see that the emergent technologies of the Victorian era were caught in the same performative bind as our modern digital technologies, and were posed with the same performative challenge, to 'perform – or else'.

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