

CHAPTER TWENTY-FIVE

“WITHIN THIS WOODEN [2.]O” Shakespeare and new media in the digital age



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NEW MEDIA, OLD PROBLEMS

Between April and September 2013, a series of graffiti artworks appeared on the streets of Glasgow. Headed by pixelated emoticons (the typographical representations of facial expressions used to convey emotion or tone in electronic correspondence), the anthropomorphic graffiti-figures bemoan their existence through selective quotation from *Hamlet* (Figure 25.1), posing questions to passers-by about “the fragmentation of complex emotions as they pass through technology” (Drew 2013). As illegal street art, Peter Drew’s *Hamlet Emoticons* are constantly under threat of defacement and removal; this transient status poignantly reflects the instability of the Shakespearean text that is both inspiration for the graffiti and their cultural reference.

One of the most contested of all textual problems in Shakespeare is Hamlet’s reference to his flesh in the opening lines of his first soliloquy, rendered by the Oxford editors as: “O that this too too solid flesh would melt, / Thaw, and resolve itself into a dew” (1.2.129–30). Since the text of the play survives in three significantly different early versions, modern editors must decide between the readings of the 1623 First Folio, which gives “solid,” and that of the First and Second Quartos of 1603 and 1604, both of which give “sallied” (a variant form of the word “sullied”). Does Hamlet wish his “solid” flesh, like ice, would melt; or does he imagine himself like trodden snow, “sallied” or “sullied” and tainted, capable of purification only if his flesh undergoes the cycle of thawing, evaporating, and condensing into dew? Is Hamlet’s metaphor physical or spiritual?

Although editors record this moment of textual ambiguity in different ways, conventional practice since the eighteenth century has been to report such variants in the form of collation formulae underneath the text of the play itself. The syntax for textual notes in print editions can be off-putting, with critics branding them a “band of terror” or “barbed wire,” alienated from the text and reader alike. With the emergence of digital publishing, editors have experimented with interface design to solve the problem of displaying textual variation, using colour, in-line visual tags or typographical markers, and customizable, reader-selected levels of annotation (see Alan Galey’s *Visualizing Variation* project, 2012–). Another possible solution is to “take

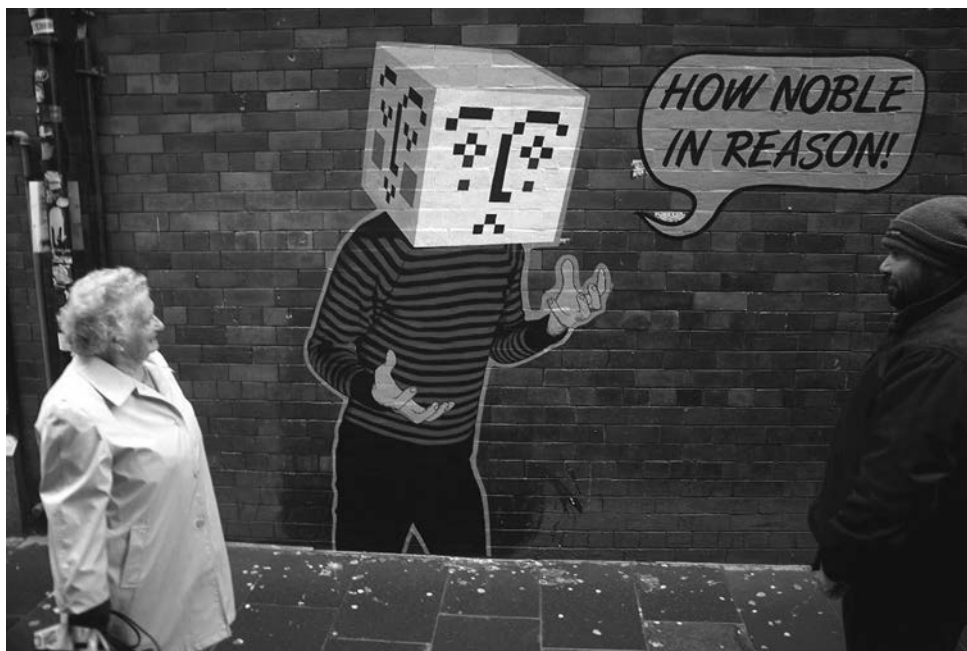


Figure 25.1 *Hamlet Emoticon*, Glasgow, 2013.
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advantage of the capacity of the medium for animation by recreating a semantic field where the text dances between variant readings,” rendering the text “visibly variant, teasingly slippery, as it makes manifest its actual instability,” otherwise all-too-frequently tucked away and “hidden by our meticulously edited print texts” (Best 2009: 34). Unlike print, in which content is static – and, in the case of the book, literally bound – electronic texts are able to embrace the plasticity of the digital medium through animation, customization, and dynamic interaction with the reader-as-user. Electronic editions, such as the ones described by Best and Galey, allow Hamlet’s flesh to be at once “solid,” “sallied,” and “sullied.”

WHAT IS YOUR TEXT?

Digital media have become insistently multimedia in content. Commercial Web pages are crowded with images; newspapers lead each article with a video or colour photograph; and lists of faculty at universities are routinely accompanied by mugshots. In a world where every smartphone is a potential multimedia platform for publication, it is a salutary reminder that early digital representations of Shakespeare’s texts were necessarily far more limited than their print counterparts. Only now are we beginning to take advantage of the additional tools and ways of viewing data that the digital environment enables. Alan Galey has recently reminded us that many of the features we think of as innovations in the digital display of complex texts were anticipated in print. As an example he highlights the remarkable inventiveness of Teena Rochfort-Smith’s *Four-Text-Hamlet*, created in 1883. This experiment displayed, in

parallel columns, the three original texts (Q₁, Q₂, and F₁), with a “Revized” text in the fourth. Each version further used multiple font faces to indicate types of variant (Galey 2014: 23–29; see also Thompson 1998). More recent (and more successful) experiments in print include Bernice W. Kliman’s *Three-Text Hamlet* (2003) and Michael Warren’s inventive boxed volume, *The Parallel King Lear* (1989).

The first machine-readable texts of Shakespeare were recorded on mainframe computers using what would now be considered arcane, command-line driven software to generate them. They were limited to upper- and lower-case letters, numbers from 0 to 9, and basic punctuation marks. During the 1960s, Trevor Howard-Hill entered all the canonical plays in this format in order to use the computer to prepare single-volume concordances to Shakespeare. Even in its early years, the computer provided two powerful functions unavailable in print: automated searching (in this instance resulting in lists of words for the concordance); and the capacity for modification and correction after the initial data entry. To provide information beyond the limited character-set available to him, Howard-Hill used a mark-up scheme (COCOA) to indicate paratextual entities (page signatures), conceptual differences (stage directions), and bibliographical information (compositor attributions). For many years the only machine that could read these texts was the mainframe computer for which they were created; eventually they were released on floppy disks when personal computers (PCs) became sufficiently widespread.

The PC made possible two new ways of accessing digital data: the disk drive and direct connection to exterior repositories through the Internet. The technology of the CD-ROM attracted the first commercial use of digital scholarly Shakespeare, not only because it made large files and multimedia available on the desktop, but also because the disk was an object that could have a price attached to it in much the same way as a published book. In contrast, networks – in due course the World Wide Web (WWW) – encouraged access to free materials, often generated or collected by enthusiastic generalists rather than scholars. Both technologies faced a major challenge in keeping up with rapid changes in both software and hardware that continually threatened to make their work obsolete by the time it was released (Hirsch and Craig 2014: 4–6).

The large storage capacity of LaserDisc and CD-ROM for the first time made genuine multimedia accessible to the personal computer. At the same time it raised the very knotty problem of copyright limitation on the distribution of graphics, music, and video. Two early projects solved the problem by providing software that accessed LaserDisc performances that the user would have to purchase or license in order to see the end result. Larry Friedlander’s *Shakespeare Project* (1984–91) combined LaserDisc with Apple Macintosh’s HyperCard to develop an interactive workspace that interlinked film segments of selected plays with the text and with other resources (Saltz 2007: 337). Peter S. Donaldson pushed the concept farther at the head of a team at the Massachusetts Institute of Technology (MIT) in the development of the *Shakespeare Electronic Archive* (1992–). The project made possible full multimedia links between the text, digital facsimiles from the Folger Shakespeare Library, and sound and video performances on LaserDisc (see Donaldson 2008). Some sense of the scope of the project can be gleaned from its *Hamlet on the Ramparts* website.

The technology of LaserDiscs did not last: the CD-ROM was more promising, as CD drives rapidly became associated with the personal computer. Three fine scholarly

publications on CD-ROM exemplify a period of experiment and inventiveness that followed; they also illustrate the limitations of the medium. Although the CD-ROM had the advantage for publishers that it fitted well with their established infrastructure for sale and distribution, it brought with it a significant disadvantage, since neither the scholarship nor the software displaying it could be updated. As a result, none of these works can be accessed on modern computers. The most traditional CD-ROM of the group was *The Arden Shakespeare CD-ROM* (Bate 1997). Three years in development, it was based on digital versions of the second Arden series, together with some useful additional resources – facsimiles, sources, glossary, and so on – and it permitted extensive searching of the texts. Although impressive in its comprehensiveness, the texts themselves were already becoming dated by the time of publication, as the third Arden series was already underway.

The earliest of the three was in many ways the most adventurous. The *Voyager Macbeth* (1994) was aimed at a student audience. It used the New Cambridge Shakespeare text edited by A.R. Braunmuller; its interface was inventive and attractive; it included extensive supporting materials; and it encouraged creative interaction with the text, even having a karaoke feature that allowed a user to speak one of the parts of the play. The developers' initial intention was to provide a full video performance (the Royal Shakespeare Company production with Ian McKellen and Judi Dench), but they were able to secure the rights only to the audio track, supported by limited video footage. A later CD-ROM devoted to a single play aimed at a more scholarly audience: *The Cambridge King Lear CD-ROM* (2001), edited by Jacky Bratton and Christie Carson. The subtitle of this work, *Text and Performance Archive*, proclaimed that its scope went beyond a traditional edition. It included an impressive library of textual materials: three modern texts edited by Jay L. Halio (Quarto, Folio, and conflated), together with major adaptations, and an extensive gallery of graphics of performance.

The flurry of adventurous programming and scholarship that resulted in these CD-ROMs has been rendered obsolete over time as operating systems have changed, and as an increasing number of computers lack a built-in CD drive. Digital Shakespeare has migrated to the Web; and it is being read by a multitude of different devices, from computers to tablets, smartphones, and e-readers. It is perhaps ironical that the first generally available digital text of Shakespeare's plays made accessible on the Internet appears to have been derived from a CD-ROM. The Moby Shakespeare, still almost ubiquitous on the Web, appears to have been extracted by Grady Ward from a CD-ROM that claimed to use the Stratford Town modern-spelling edition of 1911, edited by Arthur Bullen. However, it is more likely to be a transcription – not wholly accurate – of the Globe text published in the 1860s, or from one of a number of editions that used this popular text (Lancashire 1992). In 1993, very soon after the Web was established, two sites, both created by computer scientists, took advantage of the Moby text to format Shakespeare's canon in HTML for the first browsers: Matty Farrow's *The Works of the Bard* (University of Sydney) and Jeremy Hylton's *The Complete Works of William Shakespeare* (MIT). To their credit – and to the credit of their supporting institutions – both sites are still available.

It is no surprise that the Moby text became so prevalent. It was free, and it was a text that had pretty much what a general reader would expect from Shakespeare. All the important quotations were there. Michael Hart anticipated, and perhaps helped

create, the expectation that digital information should be free. In 1971, well before the creation of the Web – yes, Virginia, there was a world before the Web – Hart founded Project Gutenberg, designed to make plain-text versions of books freely available to all. Hart’s aim to make simple texts, of reasonable quality, available by open access anticipated both the strength and weakness of Shakespeare on the Web:

We do not write for the reader who cares whether a certain phrase in Shakespeare has a “:” or a “;” between its clauses. We put our sights on a goal to release etexts that are 99.9% accurate in the eyes of the general reader.

(Hart 1992)

This philosophy is still followed by modern sites like Eric Johnson’s *Open Source Shakespeare* (2003–), although his texts have been carefully proof-read to follow the Globe edition more accurately. The site is effectively designed for a general reader or student to use for downloading a text, and the tools the site offers for searching the texts are sophisticated. Martin Mueller has similarly generated a “good enough” Shakespeare for use with the textual-analysis programme *WordHoard*. His approach moves beyond the Globe text by consulting modern editions. Nonetheless, his rationale is very similar to Hart’s:

These texts are in virtually complete agreement with each other and with the Globe Shakespeare on the copy text used for each play, and, if one stands a few feet away from the passionately contested minutiae of Shakespearean editing, they do not differ a great deal in their treatment of cruxes or choice of variants.

(Mueller 2005: 63)

For those cranky readers who *do* care about minutiae, there are fewer choices. From the time of their earlier CD-ROM, the Arden team have done their best to provide digital versions of the Arden editions, with additional supporting material. Their first foray into the field, the website *ArdenOnLine* (1997–98), failed for lack of subscribers; the Arden 2 and 3 texts were made available to subscribing institutions through *The Shakespeare Collection* (2005–) (see Holland and Onorato 2008) until August 2015, when changes in licensing agreements required its publisher, Gale, to remove them. The Arden 2 and 3 editions are now available from *Drama Online*, a subscription-based digital platform developed by Bloomsbury, the current publisher of the Arden Shakespeare, in partnership with Faber & Faber.

All these websites have adapted works previously created for print to the digital medium. One open-access scholarly site, the *Internet Shakespeare Editions* (ISE), has chosen to create editions that are born digital. Founded by Michael Best in 1996, the site has grown to include accurate old-spelling texts of the complete works, with individual plays in the process of being edited by a team of scholars (see Best 2008). Eighteen plays are currently complete with modern texts. The site includes an extensive database of Shakespeare in performance and a much-visited section on Shakespeare’s life and times. As an online digital resource, it is able to take advantage of the medium by regularly updating the site in terms both of its content and of the tools it offers those who access it. In response to changes in technology and the needs of a growing demographic of viewers, it has recently been made available in a format suitable for viewing on the small screens of smartphones.

Smart devices such as smartphones and tablets are bringing Shakespeare to an ever-widening audience; but they remain only as smart as the content they access, content that is still severely limited by copyright restrictions. As the prevalent use of the Globe text on the Web indicates, cutting-edge technology is no guarantee of editorial sophistication. One recent publication specifically for the iPad, Luminary Digital Media's *Shakespeare's The Tempest* (2012), has been described by one reviewer as "a curious throwback to Victorian sensibilities" and "an ironic instance of twenty-first-century technology taking us backward to eighteenth-century editorial practices" (Rasmussen 2014: 161, 163). In many ways, the digital medium is still catching up to the *Voyager Macbeth* of 1994.

THE WORLD TOGETHER JOINS

In contrast with "older notions of passive media spectatorship," late twentieth- and early twenty-first-century new media enable – and are enabled by – active participation, collaboration, and interaction: media producers and consumers, previously occupying separate roles, might now be conceived "as participants who interact with each other according to a new set of rules none of us fully understands" (Jenkins 2006: 3). This blurring of the roles of consumer and producer is reflected in the expectation that digital Shakespeare editions move beyond simply remediating the features and functions of the printed book (such as producing a text and allowing users to "highlight" or "bookmark" it) and providing relevant multimedia (such as digital images, audio and video clips) to supporting user interaction and sharing of user-generated content. No longer satisfied with basic customization options, users increasingly demand the ability to create, store, and share their own annotations and commentary; to link, share, and embed content between other new media platforms and devices; and to contribute multimedia content created by themselves, whether original or a remix of existing material. For example, the *Internet Shakespeare Editions* allows users to create, save, and share annotations; to submit multimedia to its Shakespeare in Performance database; to publish film and theatre reviews on its *ISE Performance Chronicle*; and to link and embed all content on social networking platforms. Similarly, Luminary Digital Media's *Shakespeare's The Tempest* for the iPad provides a "mashable" text, allowing users to create their own custom scripts as well as annotations, and to share these on social media platforms or export them to other apps.

By 1995, still the early days of the Internet, Shakespeare's online presence was already prolific enough to require the creation of "gateway" sites to collate and link to others, such as Terry A. Gray's meticulously curated *Mr. William Shakespeare and the Internet* (1995–2011). After the paradigm shift to "Web 2.0," participatory culture stimulating and stimulated by the emergence of social media and networking platforms, sites such as Gray's could no longer be feasible: there is now simply too much online Shakespeare content to catalogue by hand, and the rate of growth is exponential. At the time of writing, there are over 200 Shakespeare "groups" on Facebook, ranging from academic discussion groups (e.g., "Shakespeare Friends"), clubs and festivals (e.g., "Shakespeare Readers Society" and "Texas Shakespeare Festival"); to amateur and semi-professional theatre companies (e.g., "Shakespeare Institute Players"); specific Shakespeare projects and productions (e.g., "Shakespeare's

Star Wars”); and a dizzying array of school and college Shakespeare courses (e.g., “Shakespeare 412 – Fall 2014”) – not to mention groups with only a coincidental or tangential relationship to the author (e.g., “Shakespeare Spiritualist Church,” so named because it is located at 95 Shakespeare Street, Glasgow). As Christie Carson and Peter Kirwan report (2014: 249), Twitter “indiscriminately includes hundreds of profiles” for Shakespeare, with descriptions ranging from the serious (e.g., “Actor and playwright based in Renaissance England”) to the puzzling (e.g., “Poet, play-write [*sic*] and member of the assassin order”) and the farcical (e.g., “I acquire [*sic*] all the wenches. I raise thy hands into the atmosphere and flail them about [*sic*] as if there were no repercussions”). Although these explicitly Shakespearean avatars and discussion groups are easily located, it is impossible in practical terms to track and measure comprehensively the mass of Shakespearean adaptations, allusions, pastiches, and quotations published online in various new media formats.

Despite the immense difficulty of the task, there have been attempts to catalogue Shakespeare’s presence selectively on certain social media platforms, such as Luke McKernan’s *BardBox*. According to the project’s “About” page, *BardBox* curated some 150 of “the best and most interesting of original Shakespeare-related videos on YouTube, Vimeo and other video hosting sites,” including “animations, parodies, recitations, auditions, promos for theatre productions, amateur records of stage productions, student work, school productions, [and] mashups,” from its launch in May 2008 until its retirement in September 2012. Content such as this participates in the ongoing debate over what constitutes “fair use” in the creation of multimedia remixes, parodies, and mashups, as Hollywood studios zealously police their intellectual property and Actors’ Equity limits the distribution of filmed stage productions. To work around these limitations, a number of projects have partnered with theatre companies and independent filmmakers to make their Shakespeare video content freely available online. For example, the *MIT Global Shakespeares Video & Performance Archive* (directed by Peter S. Donaldson and Alexa Huang, 2010–) has provided streaming videos, in whole or part, of recorded stage and screen Shakespeare performances from around the globe since its launch, alongside essays, interviews, scripts, subtitles for foreign-language productions, and other metadata. The *Internet Shakespeare Editions* has brokered similar partnerships with theatre companies from around the world to contribute multimedia materials to its *Shakespeare in Performance* database. These projects and others like them are making it possible to study and appreciate Shakespeare performance and adaptation as a global phenomenon, extending beyond the commercial Hollywood movies and canonical productions by a select group of professional Anglo-American theatre companies that have dominated performance criticism in the past.

As well as providing a vehicle for the distribution of Shakespeare content, social media and networking platforms also offer a mode of performance in their own right. Co-produced by the Royal Shakespeare Company and Mudlark, *Such Tweet Sorrow* marked the first modernized adaptation of *Romeo and Juliet* performed entirely on Twitter and other social media and networking platforms, in real time, between 10 April and 13 May 2010. Actors brought *Such Tweet Sorrow* to life with their own Twitter profiles – Romeo (@romeo_mo), Juliet (@julietcap16), Mercutio (@mercuteio), Tybalt (@Tybalt_Cap), Friar Laurence (@LaurenceFriar), and Jess, Juliet’s older sister, a non-Shakespearean addition who assumes the role of

Nurse (@Jess_Nurse) – improvising on daily instructions provided to drive the central narrative, responding to current events (such as the London Marathon), and freely interacting with one another as well as with a public audience of Twitter followers. Elsewhere on the Web, Lady Capulet (reimagined as a dietician) updated her blog, “Balanced Adult: Food, Nutrition and Exercise,” while an additional (and uncredited) non-Shakespearean character, Jago Mosca (@jago_klepto), tweeted and blogged an outsider’s perspective as Juliet’s envious and angst-ridden classmate. Exemplifying Jenkins’s notion of “media convergence” (2006: 2), characters “engaged with, and incorporated, the whole gamut of Web 2.0 social [media and] networking platforms, including YouTube, AudioBoo, Yfrog, Twitpics, Tumblr, Spotify, Facebook, [Blogger,] and even Skype” (Calbi 2013: 138).

Such Tweet Sorrow provoked audience participation that far exceeded expectations. Within the first week, the actors’ Twitter feeds had over 30,000 followers, with members of the public tweeting, retweeting, and interacting with the characters. Over the course of the production, fans could also play *Call of Duty* against Romeo on Xbox Live; and audience members posted over 400 images of their own “masks” to the Facebook invitation page for Juliet’s “Sweet Sixteen Masked Ball.” In addition to numerous fan sites and blogs, a public campaign was launched to “save Mercutio” in the lead-up to his death – much to the delight and amazement of the production team, who had not instigated it – followed by a fan-arranged online “wake” for him.

As professional theatre companies continue to explore the possibilities of incorporating social media and networking platforms in performance, Shakespeare has become a focus for online creativity by young users of new media. Leia Yen’s “Hamlet Gone Viral” (2012), published on YouTube as a senior English project to “Create a Modern Interpretation of Shakespeare’s *Hamlet*,” ingeniously adapts the play into a first-person narrative “seen” primarily through the eyes of Hamlet as he negotiates changing personal relationships over Facebook, Twitter, and Gmail; maintains a private journal on Tumblr; visualizes his travels using Google Maps; and reads news stories published on MSN.com and Yahoo! News. Yen’s Hamlet also queries Internet search engines for information, using Google to find out “how to cope with grief and depression” and “ways to make someone feel guilty”; and he submits the question “What do you do if your father’s ghost tells you that your uncle murdered him???” to Ask.com.

Ophelia is another popular Shakespearean candidate for new media adaptation, particularly by girls and young women who, “through their identification with and critique of Shakespeare’s doomed maiden,” are inspired to use Facebook and YouTube to fill the gaps in *Hamlet* imaginatively via creative revision, revivification, and memorialization of her character (Iyengar and Desmet 2012: 59). In their survey of YouTube remediations, Sujata Iyengar and Christy Desmet identify three main categories: “Ophelia Elegies,” which “focus obsessively on Ophelia’s body and poetic signification”; “Ophelia as Tragic Lover,” in which *Hamlet* is rewritten to become “Ophelia’s story”; and “Drowning Ophelia,” which offers “both sentimental and witty reworkings of the death scene available in Shakespeare only through Gertrude’s eulogy” (2012: 68). These new media adaptations “reveal and extend *Hamlet*’s own rhetorical approach to her character,” providing “a more complex biography than Shakespeare could ever have imagined for her,” as Ophelia becomes a “social

paralogue” and “posthuman avatar” with “new adventures [and] new sorrows” (Iyengar and Desmet 2012: 67, 72–73; see also O’Neill 2014: 95–119).

In Shakespeare’s time, the “supreme device of the early modern stage,” providing “audiences access to a character’s motivations and thoughts,” was the soliloquy (O’Neill 2014: 86). At the turn of the twenty-first century, personal video emerged as “*the* technology of interiority” for Shakespearean performance, exemplified by Michael Almereyda’s *Hamlet* (2000), in which “all but one of Hamlet’s soliloquies [were] framed as video sequences that he has composed” (Rowe 2003: 46). With the capacity to adapt, converge, and manipulate audio, image, text, and video, and through the provision of new communicative forms (comments, posts, and tweets; shares and retweets; social gestures such as “like” and “favourite,” etc.), social media and networking platforms have since overtaken personal video as the technology of interiority. Viewers of Yen’s “Hamlet Gone Viral,” for example, experience the play through Hamlet’s eyes and his computer screen: with music in the background, we watch his exchange with Ophelia in act 3, scene 1 rendered as an email correspondence in which his initial response to her (“I do love you”) is typed, deleted, and rewritten (“I did love you,” and then “I don’t love you”) before, in frustration, he settles on “Go to a nunnery!!!!” and clicks “Send.”

INFINITE SPACE

Shakespeare’s geographies, as Garrett A. Sullivan, Jr suggests, “are at once poetic and historical, archetypal and particular” (2003: 196). Thus, the Venice of *Othello* and *The Merchant of Venice* is simultaneously an historical maritime city-state famed for its political independence and international trade, and a mythical projection of contemporary English anxieties, fears, and desires associated with cosmopolitanism, capitalism, and Catholicism, a mirror reflecting the vices and virtues – real and imagined – of London and England. Shakespearean plays set in the city of London and its surrounds offer even finer geographical detail, “replete with references to streets, buildings, neighbourhoods, wards, parishes, landmarks, and the natural landscape” (Jenstad 2011: 117). Much of the action in Shakespeare’s *Richard III*, for example, takes place in various locations in and around London: Baynard’s Castle, Crosby House/Place, Ely House, Guildhall, St Paul’s Cathedral, the Tower, Westminster, and Whitefriars.

Whereas early modern London audiences were readily familiar with these geographical references, modern readers rely on scholars to explain the historical and cultural significance of such sites. (Modern editions of Shakespeare, even those produced for a British readership, typically gloss all place-names for this reason.) However, local knowledge of early modern London also included an appreciation of its spatial contexts: the proximity of one location to another and their relationships to other built and natural structures; their accessibility by various modes of transport by land or water; and the time taken to traverse these distances. To recover these lost spatial contexts, the *Map of Early Modern London* (MoEML) offers a digital map and gazetteer (based on a high-resolution scan of the Agas woodcut map of London, executed in the 1560s), linked to an encyclopaedia of London people, places, topics, and terms, as well as transcriptions of John Stow’s *Survey of London* and other primary texts rich in London toponyms (see Figure 25.2).

MoEML allows modern readers of *Richard III*, for example, to visualize the movements of the titular character around London, and to piece together the geographical components to his shrewd political manoeuvres and social transgressions. Tudor mythology ensured an “inescapable association of Richard with the Tower” in the early modern English imagination. The site is mentioned more than twenty times in Shakespeare’s play, and “characters orient themselves in physical and symbolic relation to the Tower” (Schwyzer 2013: 153–54). Similarly, the three references to Crosby House/Place in the play, always “in conjunction with the development or fruition of one or another of Richard’s vicious schemes,” suffuse the site with “a sinister significance, like the centre of a spider’s web” (Schwyzer 2013: 155).

Although the vast majority of early modern London theatrical venues no longer exist, many of the sites where they once stood have been positively identified and can still be visited. In 2013, the *Shakespearean London Theatres* (ShaLT) project – a partnership between De Montfort University and the Victoria and Albert Museum – was launched, producing a London walking map; a forty-eight-page colour *Guide to Shakespearean London Theatres*; an interactive website and smart-device app; recorded lectures by leading experts; and short films of performances, all made freely available to download and designed to enable the public “to travel to the modern London locations of these theatres and learn about them” (Egan and Gurr 2013). The ShaLT smart-device app interactively directs users to thirty-seven locations in modern London, including indoor and outdoor professional theatres, inns used for plays, Inns of Court, royal performance venues, churches where actors and theatre personnel are buried, the Revels Office, and Shakespeare’s residences. It provides in-depth information about the sites and their history, as well as visual representations of how they looked, or might have looked, 400 years ago, with images from the vast collections of the V&A complementing the entries (Figure 25.2).

In the absence of surviving material structures, Shakespeare scholars have sought to reconstruct early modern performance spaces digitally, creating 3D scale models



Figure 25.2 Left: Screenshot of the *Map of Early Modern London* Agas map interface. CC-BY-SA Map of Early Modern London. Right: Interface screens for the *Shakespearean London Theatres* smart-device app. CC-BY Shakespearean London Theatres.

with which to explore spatial relationships, simulate staging practices, and experiment with different performance conditions (see Ravelhofer 2002, and articles in Egan 2004). For example, Joanne Tompkins and the team at Ortelia Interactive Spaces (2009–) have built interactive 3D virtual models of the Boar’s Head and Rose playhouses, using archaeological records of the sites’ foundations and the work of theatre historians and architects to ensure that the models are as accurate as possible. Tompkins has recently shown how the Ortelia virtual environment can provide valuable insights into theatre history, with the performance of Christopher Marlowe’s *Doctor Faustus* at the Rose playhouse as a case-study. One “significant revelation” has been the model’s illustration of “just how intimate the Rose was,” and how this intimacy of scale challenges the historical records we have about lighting outdoor theatres (Tompkins 2014: 164). The virtual model similarly allowed Tompkins to experiment with the function and design of a hell-mouth, a large property used to stage Faustus’s climactic damnation (Figure 25.3). Traditionally thought to work in conjunction with a trapdoor, the Ortelia model demonstrates that the limited size of the Rose’s tiring-house and stage suggests that a trapdoor would not accommodate it. Instead, the hell-mouth would be designed to “collapse easily so it wouldn’t occupy too much room backstage,” a mobility requirement that also “would have contributed to its appearance,” rendering it “somewhat ragged after many performances” (Tompkins 2014: 169).

Like Ortelia, the Simulated Environment for Theatre (SET) is another project to create accurate 3D scale models of performance spaces. As a “virtual environment for exploring the relationships between theatrical text and performance” built on the Unity 3D game engine, SET “accommodates visualizations of text, performance, performance records, and annotations in two and three spatial dimensions, as well as in time” (Roberts-Smith *et al.* 2014: 70). As an editorial experiment, Jennifer Roberts-Smith and the SET Project team produced an electronic edition of *Richard III*, taking as its copy-text an excerpt from the anonymous Queen’s Men play *The True Tragedy of Richard the Third* (see Figure 25.3) in which “the gaze” of the user “is directed through the Queen’s Men play to Shakespeare’s by means of the layout of our editorial interface” (Roberts-Smith *et al.* 2014: 72). For Roberts-Smith and her team, the “impotence of linear textual source study” to grant *The True Tragedy* agency as a source or analogue “because its provenance cannot be sequenced” is overcome by the “performance-oriented reimagining of English Renaissance theatre culture” accomplished through the software (Roberts-Smith *et al.* 2014: 74–75). In the spirit of participation that characterizes new media culture, users are invited to “download and play” the edition, to alter the “blocking and text at will,” and to test the team’s findings in a process that “empower[s] users as creators” and “dissolv[es] the researcher–audience binary even more completely than performance can” (Roberts-Smith *et al.* 2014: 75, 78, 91).

While projects such as Ortelia and SET allow users to record blocked simulations, other 3D virtual environments can support real-time Shakespeare performances. On 26 April 1998, Stephen N. Matsuba and Bernie Roehl streamed a live performance of *A Midsummer Night’s Dream* over the Internet, using imaginative 3D sets, characters, and props modelled through the Virtual Reality Modelling Language (VRML), with actors providing the voices and puppeteers animating the characters in real time (Matsuba and Roehl 1999: 45). More recently, the Second Life Shakespeare



Figure 25.3 Top: Ortelia simulation of *Doctor Faustus* in the Rose playhouse. © Ortelia Interactive Spaces. Bottom: SET visualization of *The True Tragedy of Richard the Third*. © SET Project

Company (after February 2010, the Metaverse Shakespeare Company) presented live productions of Shakespeare's plays in the online virtual world of Second Life using a 3D scale model of the Globe Theatre relying on C. Walter Hodges's conjectural reconstruction. Founded in 2007 under the artistic direction of Ina Centaur (the "in-world" avatar of Yosun Chang), the Second Life Shakespeare Company made "live Shakespearean theatre available to anyone anywhere with a computer," and developed "new technology for virtual theatre on Second Life" and "new possibilities in entertainment, culture, and commerce for residents of a diverse, unbounded

geosphere” – all “to make Shakespeare cool again” (Centaur 2009). The Second Life Shakespeare Company mounted live productions of selected scenes from *Hamlet* (act 1, scene 1 in February 2008; act 3, scene 2 in April 2008) and the entire first act of *Twelfth Night* (February 2009). Despite sponsorship campaigns and various efforts to raise funds to meet costs, the company deactivated in October 2009 before dissolving completely in 2011 for lack of funding, with the virtual Globe Theatre deleted from the Second Life servers.

THE [GAME]PLAY’S THE THING

In 2006, a year prior to the inauguration of the Second Life Shakespeare Company, the John D. and Catherine T. MacArthur Foundation awarded Edward Castronova and the Synthetic Worlds Initiative at Indiana University US\$240,000 to develop *Arden: The World of William Shakespeare*, an ambitious, massively multiplayer online role-playing game (MMORPG) set in a 3D virtual world framed by Shakespeare’s *Richard III*. Built as a module extending *Neverwinter Nights* (a popular Dungeons & Dragons game developed by BioWare in 2002), *Arden* allowed players to roam the city of Ilminster, interact with (and complete tasks for) characters from Shakespeare’s plays, or visit the local tavern to gamble at cards with other players. After the first year, the MacArthur Foundation refused to renew its funding, and active development on the game ceased. Incompatibility between the developers’ goals and the expectations of different target audiences was an acute problem. Scholars could appreciate *Arden*’s adaptation of Shakespearean content, but found the gameplay baffling (see e.g., Holland 2009; Osborne 2010). Gamers familiar with MMORPGs could easily navigate through Ilminster, but found the “quests” boring – helping Mistress Quickly mend Falstaff’s torn breeches is hardly the stuff of adventures – and the extensive dialogue tedious (see e.g., Baker 2008). As with the Second Life Globe Theatre, only faint digital traces of the project remain.

The failure of *Arden* points to another problem facing all appropriations of Shakespeare, whether in old media or new: fidelity to the original. “Popular appropriations are controversial,” Douglas Lanier remarks, “because they often extend what counts as ‘Shakespeare’ beyond the limits of where many are willing to go” – that is, towards a Shakespeare “relatively unburdened with worries about historical accuracy, interpretive precision, or faithfulness to the letter of Shakespeare’s scripts” (Lanier 2002: 9). A further complication arises in the case of game adaptations, since there exists an inverse relationship between the level of conformity to Shakespeare’s text and the autonomy granted to players. According to Kurt Squire and Henry Jenkins, simply to “retell Shakespeare via a game” is to “detract from the agency of players who want more open-ended structures and who want to see the outcome emerge from their own choices and actions” (2003: 19–20). At the other end of this spectrum are games with tenuous links to Shakespeare’s text, such as *’Speare*, an arcade-style game loosely based on *Romeo and Juliet*, developed in 2007 by Daniel Fischlin and the Canadian Adaptations of Shakespeare Project. Amidst war between the planets Capulon and Montagor, players of *’Speare* construct a spaceship and shoot their way through an invading army to recover stolen text fragments from Shakespeare’s play, thus restoring peace to the Verona system (Fischlin 2007).

Squire and Jenkins propose a compromise between the two extremes: construct a game that allows players “to explore and have their own adventures in the richly detailed worlds where [Shakespeare’s] stories unfold,” to move beyond a “literal-minded adaptation” that “simply play[s] out the plot[s] with limited roles for player intervention,” offering instead “a deconstruction or interpretation” of the plays (2003: 20). They have been working on just such a game: *Prospero’s Island*, a single-player computer game based on *The Tempest*, developed by the RSC in collaboration with MIT Comparative Media Studies. The “immersive world” of *Prospero’s Island* is “a space of dreams and magic” in which “students are encouraged to decipher symbols, manipulate language, and uncover secrets,” that is, “to perform literary analysis” (2003: 21). For Squire and Jenkins, the “nonlinear, more open-ended medium” of the computer game, “where no two players will have exactly the same experience,” not only exemplifies the ephemeral and dynamic nature of Shakespearean performance, but also invites users to experience the plays more actively (2003: 21). *Prospero’s Island* has been in development since 2003; whether it will ever be released, or if it lives up to such high expectations, remains to be seen.

As one might expect, the most popular Shakespeare game adaptations to date have by design not been educational. Shakespeare Country, a not-for-profit partnership between Stratford and Warwick District Councils and local businesses, commissioned Koko Digital to develop *Romeo: Wherefore Art Thou?* for their website in 2009. In the game, Shakespeare meets the classic *Super Mario Bros.* when players run and jump through ten levels of “Shakespeare Country” as Romeo – collecting roses and “chapters from Shakespeare’s plays” while avoiding wild boars, reanimated skeletons, spikes, pits, vines, and other nasty surprises – finally “rescue[s] Juliet from the balcony” (Koko Digital 2009). With simple but addictive gameplay enticing users



Figure 25.4 *The Typing of the Dead: Overkill.*
© SEGA Corporation

to browse the Shakespeare Country website, *Romeo: Wherefore Art Thou?* marked Shakespeare's first foray into the world of so-called "viral" games. Unsurprisingly, it quickly became an Internet hit, attracting 1 million players world-wide in its first week – a figure that rose to over 22 million ten months later – and international press attention. Another notable example is the Shakespeare downloadable content (DLC) available for *The Typing of the Dead: Overkill* (developed by Modern Dream Ltd and published by SEGA in 2013), a popular horror-slash-comedy PC game in which players shoot marauding zombies by typing words and phrases as they appear on screen with accuracy and speed. The Shakespeare DLC replaces the game's default dictionary with lines randomly drawn from Shakespeare's complete works, often with ironic and grimly amusing results (Figure 25.4). While the arbitrary selection of lines means the game cannot function as an unorthodox reading interface for Shakespeare's works, it may at least familiarize players with his words – and lend a sense of urgency to the process.

IS'T REAL THAT I SEE?

"Not only is our access to Shakespearean drama mediated by digital technology," W.B. Worthen aptly observes, but "our imagination of Shakespearean drama is shaped by the forms and moods of digital culture" (2007: 228). This relationship of mutual influence between Shakespeare and digital new media is exemplified in intermedial theatre, that is, reflexive "inter-exchanges" and "interactions" between "mediatised (digital) and live elements" in performance (Mancewicz 2014: 3). The nature and extent of such interactions vary from production to production, but each shares an element of reflexivity that sets it apart from so-called "multimedial" performances. Whereas new media and digital technologies form "an integral and reflexive part of staging" in twenty-first-century intermedial performances, *multimedial* productions simply employ them in a conventional manner, such as "projections in the background, set apart from the action, with which the actors do not engage in the course of performance" (Mancewicz 2014: 5).

One of the earliest intermedial Shakespeare performances was a production of *A Midsummer Night's Dream* mounted at the University of Kent's Lumley Studio Theatre from 29 June to 1 July 2000. Variouslly dubbed *Y2K Dream* or *A Midcyber Night's Dream*, the production brought together experts from the University of Kansas's Institute for the Exploration of Virtual Realities and the Kent Interactive Digital Design Studio to develop a "digital scenography" (Reaney 2000). *Y2K Dream* was set in a "computer-based world inhabited and controlled by fairies," with the grove relocated to a "computer chess game"; Titania's bower "constructed in a word processor motif, with words from the play-text wafting as the fronds of an enormous willow tree"; and "an arena where the fighting lovers could battle in the midst of violent computer games" (Reaney 2000: 195, 197–201). In an interview with *The Guardian*, Mark Reaney described how, unlike a "pre-set video" or "special effects in film," the production was "a true live theatrical experience," with "technicians sitting in front of the stage" to control the virtual scenery "in real time" and "react immediately to the actors' movements," a process that "change[d] every night, just as proper live theatre does," with "no performance . . . the same as the next" (Gibbons 2000).

Virtual scenery, “television screens, digital projections and live electronic sound mixing” – as well as the actors interacting with them – are now “regular presences in mainstream theatre productions” of Shakespeare (Purcell 2014: 218), but intermediality may also function on a deeper, structural level. Intermediality, Jürgen Müller reminds us, does not simply mean “the addition of different media concepts, nor the act of placing discrete works in relation to particular forms of media,” but extends to “the integration of aesthetic concepts from different media into a new context” (quoted in Pavis 2003: 49). A pertinent example is Punchdrunk’s theatrical re-creation of the aesthetic idioms of first-person role-playing computer games (RPGs) like *BioShock* and *Skyrim* – immersion in the game-world, narratives driven by exploration and direct interaction – in their *Sleep No More*, a controversial, dialogue-less and non-linear adaptation of *Macbeth* produced in London (2003) and New York (2011). As with other Punchdrunk productions, *Sleep No More* “allows its audiences to wander freely around specially adapted sites,” exploring the claustrophobic world of the fictional McKittrick Hotel set in the 1930s, “encountering actors and installations as they happen to chance upon them” (Purcell 2014: 220). As an “interactive maze that owes more to video games . . . than Shakespeare” (Grant 2011), *Sleep No More*’s immersive, site-specific production marks a “new era of theatre” that is “borrowing conventions from video games, making invigorating performances in which the viewer becomes a player” (McMullan 2014).

SINGLED FORTH TO TRY EXPERIMENTS

Since the 1960s, when Trevor Howard-Hill painstakingly transcribed the First Folio texts on a mainframe computer, the digital world of Shakespeare has exploded in volume and variety through a period of constant experimentation and flux. There are some signs that the pace of change may be slowing: computers are only marginally faster, smaller, and/or lighter in each new model; and operating systems are moving more towards integration than innovation. Nevertheless, challenges remain. Restrictions on rights to the use of multimedia materials mean that there is little opportunity for the development of truly comprehensive performance editions or multimedia critical works (Carson 2006). Moreover, while major publishers have had some success with websites that are funded through a “paywall” subscription model, open-access projects, dependent on grant funding, are continually in danger of losing momentum and becoming subject to “bit rot” as their sites become dated. Yet some websites have been successful through steady maintenance and innovation (e.g., the *Internet Shakespeare Editions*, the *Open Source Shakespeare*, the *Map of Early Modern London*), while other digital experiments have taken advantage more of Shakespeare’s author-function rather than engaging with the works themselves, embracing the evanescence of the medium with no expectation of permanence in what become, in effect, performances.

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