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1 in a multiplicative, multimodal—digital—universe. To ignore the many different
2 modes and methods of narrative storytelling they have at their fingertips is to render
3 our classrooms as backwaters, excluding “significant student knowledge from the
4 learning environment” (Ryan, Scott and Walsh, 2010, p. 477). In this paper I outline a
5 module in which I incorporate multiple literacies into a creative writing course,
6 Playable Fiction, noting the affordances, limitations, and benefits of teaching
7 workshops for writing digital fiction¹. For creative writers, digital fiction workshops
8 offer a multiliteracies approach (Cazden *et al.*, 1996; Cope and Kalantzis, 2009) that
9 develops digital literacy, reflective practice, and audience awareness, as well as
10 organically opening students up to fresh and even experimental techniques and
11 perspectives in their writing practice.

12 As undergraduate creative writing instructors, our aims and learning objectives
13 for our students have necessarily changed from the 20th century. As tuition costs rise,
14 we are being asked more and more not only to develop critical thinking skills and,
15 more specifically, creative writing skills in our students, but to help them gain
16 vocational and transferable skills as well (Bok, 2009; Carr, 2009). In the 21st century,
17 those include multimodal communication, which plays an increasingly important role
18 in everyday life, the workplace, academia, citizenship, and even issues of agency and
19 the self (Cope and Kalantzis, 2009; Archer and Breuer, 2016). Higher education,
20 however, has been slow to engage in multimodal literary practices (Goodfellow, 2011,
21 p. 136), for whatever reason: lack of holistic teaching approaches in the academy; the
22 quickly changing literary landscape; or insecurities about new technologies and
23 practices. Arlene Archer and Esther Breuer make an eloquent case for embracing
24 these multimodal and digital challenges in higher education:

25 ...a multimodal approach has the potential to provide a healthy antidote
26 to monolingual and logocentric approaches to meaning-making,
27 enabling a metacognitive view of semiosis as occurring across
28 languages and modes, as well as a successful way of enabling access to
29 dominant and powerful forms (2016, p. 14).

30 The future of writing is multiplicative: multimodal, collaborative, participatory, and
31 distributed (Short and Kauffman, 2000; Clark, 2010; Jacobs, 2012). It is imperative
32 that we engage our creative writing students with all of the sign systems available to
33 them for meaning-making in digital contexts; not only will teaching digital fiction

¹ This paper focuses on digital fiction, as opposed to electronically published prose fiction (such as ebooks), as the creative writing practice that leads to electronically published prose fiction is not fundamentally different from that leading to printed prose fiction.

1 help them to be better writers with wider career opportunities, but it will also to
2 enable them to develop some of the skills that are expected of them as 21st century
3 citizens (Dogan and Robin, 2008, p. 902).

4 While many instructors are reluctant to embrace the “digital” element of
5 writing fiction, the form itself grew out of experimental and avant-garde literatures:
6 OuLiPo, literary cubism, temporal contortionism, and both Modernism and
7 postmodernism, standing on the shoulders of Jorge Luis Borges, John Barth, Italo
8 Calvino, Samuel Beckett, Virginia Woolf, and James Joyce, to name a few
9 (Ciccoricco, 2012, p. 472). Its early forms are early video games: text adventures (a
10 genre that is alive and well, now often called “interactive fiction”), which dominated
11 the 1980s game industry (Briceno *et al.*, 2000). As games moved toward visual
12 graphics and first-person avatars, hypertext fictions began to circulate, with Michael
13 Joyce’s *afternoon* (1987) generally noted as the first, preceding even the Internet
14 (Ensslin and Skains, 2017). Digital writers proceeded to turn every software platform
15 and distribution system to their own ends, including HTML, Macromedia/Adobe
16 Flash, JavaScript, game engines, and mobile applications. Collectively, the narrative-
17 focused, multimodal, *digital* works they create are termed “digital fiction” (a form of
18 electronic literature):

19 fiction written for and read on a computer screen that pursues its verbal,
20 discursive and/or conceptual complexity through the digital medium,
21 and would lose something of its aesthetic and semiotic function if it
22 were removed from that medium (Bell *et al.*, 2010, p. np).

23 As a still emerging and evolving form of narrative storytelling, digital fiction
24 offers creative writers an opportunity to create and develop literacies in the “visual
25 and digital media they consume and produce in mass quantities on a daily basis”
26 (Hergenrader, 2015, p. 46). This paper offers a model for teaching digital fiction
27 workshops for undergraduate instructors. The following sections establish the benefits
28 to students of immersing them in this multimodal form, as they develop crucial
29 multiliteracies in the creative writing classroom. Considerations for teaching are
30 discussed, including issues of technical know-how and the lack of infrastructural
31 support for these types of texts. Finally, I describe the model class I teach to second-
32 and third-year undergraduates in the Professional Writing program at Bangor
33 University, in the UK, including marking recommendations and reading list advice.

1 **The Benefits of Teaching Digital Fiction for Creative Writers**

2 Twenty-first century writers face a wild and varied landscape unlike any previously
3 known. Prior to written culture, crafting fiction involved memorization, appropriation,
4 transformation, and recitation: an oral tradition that, while rich, was limited by the
5 bounds of memory, language, and time. The era of print—a technological revolution
6 itself—extended these boundaries, but introduced new boundaries in form, sequence,
7 copyright, and commerciality. Moreover, print writers craft fiction using what has
8 become an endemic or ‘neutral’ skill: communicating through written language.

9 Comparatively, if print writing is a road well-travelled, the digital writing landscape is
10 a barely explored wilderness. It requires “multiliteracies” (Cope and Kalantzis, 2009):
11 writing; awareness of various film, music, Internet, and game conventions; awareness
12 of cultural signs and references; video, image, and sound manipulation; HTML
13 coding; and potentially much, much more, all in a constantly and rapidly evolving
14 technological environment. These skills—with the exception of writing, reading, and
15 hopefully some cultural dialogue—are not yet fundamentally integrated into the basic
16 literacy skills entrenched in school learning. Nor can we expect our undergraduate
17 students to undertake to learn them in the didactic teaching model that has dominated
18 Western pedagogy for so long, by taking individual classes in computer
19 programming, graphic design, sound design, web design, filmmaking, animation, and
20 creative writing.

21 The current creative writing landscape calls for a more integrated approach,
22 one that recognizes the wide variety of professional options for our students once they
23 graduate. Less than 10% of creative writing students go on to stereotypical “writing”
24 careers (fiction writing, publishing, translating); far more go into arts/design/media
25 careers (17.7%) and marketing/public relations/sales (11.3%)—not to mention the
26 significant numbers who enter professions such as education, health, business,
27 information technology, and law (Logan and Prichard, 2016; *What can I do with a*
28 *creative writing degree?*, 2018). These fields—creative writing included—
29 increasingly call for multiliterate professionals; we are failing to prepare our students
30 properly for their careers if we restrict our teaching to the Raymond Carver
31 “minimalist” prose and poetry workshop model (Koehler, 2015).

32 In defining the Multiliteracies Pedagogical Framework, Bill Cope and Mary
33 Kalantzis argue for teaching *design* rather than the rules of language, grammar, and
34 canon (2009). Like multimodality, a design-focused approach engages students in

1 multiliteracies holistically, encouraging them to practice a *process* of development for
2 their work that closely resembles the draft-workshop-revise creative writing process
3 we have taught for decades. It reaches further, however, asking students to: develop
4 awareness of all the methods of communication at their disposal; analyze their
5 audience, market, and communication media; choose communication methods and
6 modes that best suit their message and audience; construct texts that make the best use
7 of these options—and, at their best, create a text that not only adds these media and
8 modes together, but combines them in such a way that their meanings, when (re-
9)constructed by the reader, are multiplicative (Lemke, 1998), the whole more than the
10 sum of its parts. This is the goal of multiliteracies pedagogy, onboarding students with
11 interpretive strategies and flexible skillsets that not only enhance and progress the art
12 of narrative fiction creation, but also outfit them with transferable skills valuable in
13 modern careers across all professions.

14 While most students are certainly immersed in digital media, from social
15 media and text messaging to web comics and gaming, most undergraduate students
16 are largely unfamiliar with digital fiction as a creative writing endeavour. They may
17 be familiar with the fringes of digital fiction that are part of the mainstream, such as
18 walking simulators, YouTube mashups, and mobile app versions of classic texts
19 (along with a range of virally/socially shared texts Leonardo Flores terms “3rd
20 generation e-lit” [2018]); they rarely conceive of these texts, however, as falling under
21 the banner of creative writing, even if they have dabbled in composing some
22 themselves. Thus, the simple transition of the writing space from word processor
23 (and, typically, some work in pen and paper) to HTML composer introduces a simple
24 but significant change to their writing practice, an element of “trouble”, as Howard
25 Garfinkel (1967) terms it, that brings their habitual practices and habits into relief,
26 allowing for greater introspection, reflection, and experimentation.

27 The shift in the writing space brings with it a multimodal practice. Whereas
28 prose comes with a relatively rigid presentation mode (codex, black text, white/cream
29 page, left-to-right, top-to-bottom, first page to last), the nature of the digital medium
30 opens a multitude of communicative potentialities. Their narratives can include
31 multilinear plotlines relying on reader interactivity; they may incorporate colour,
32 image, sound, video, movement, music, and gameplay. Composing digitally increases
33 the opportunity for writers to use these additional modes to convey narrative
34 metaphor, character, and setting (Chisholm and Trent, 2013; Skains, 2017): “each

1 sign system makes available different potentials for meaning” (Short and Kauffman,
2 2000, p. 44). Further, the digital writer is faced with technological and mechanical
3 challenges in the construction of their texts, regardless of their level of experience,
4 resulting in a “heightened awareness of the act of construction and an output that
5 breaks from the writer’s familiar style...[encouraging] the kind of intentional thinking
6 that is just as useful in traditional writing” (Reed, 2015, p. 143). The digital medium
7 engages writers in a metacognitive approach to the creation of narrative, pushing their
8 writing practice to previously underexplored heights.

9 Also inherent in digital composition is a shifted focus to the reader (or
10 generally, the reader-player). Many writers, particularly student writers, write mainly
11 for themselves or for assessments; I’ve found it difficult for most to “put their work
12 out there”: to submit for publishing, to share with friends and family, or even to
13 submit to my department’s end-of-year “showcase”, even when urged by their tutors².
14 Writing digital fiction requires them to do more than just write: it requires them to
15 *design* (Cope and Kalantzis, 2009), to create a text and an interface that function in
16 harmony for the desired reader experience. They have to consider what word, colour,
17 image, and/or sound choices might lead their reader to click one link over another—
18 and what it may mean to the reader in terms of narrative interpretation when they do.
19 They have to consider dead ends and broken links, timing of image downloads and
20 volume (and potential for irritation) of background music. In digital texts, “the
21 balance of agency in meaning construction has shifted in favour of the viewer” (Cope
22 and Kalantzis, 2009, p. 181). This shift requires digital writers to focus on the
23 audience experience of their texts from the very first stages of composition, rather
24 than merely at the end when they want to send query letters out and need to identify
25 their work’s genre and market for potential agents and editors.

26 If digital writers are engaging multiplicatively in their texts for the sake of
27 their audience, they are certainly more engaged in the text overall. Perhaps because of
28 the unfamiliarity of the composition space, or perhaps because of the novelty of doing
29 something new, I find my digital writers working up drafts earlier in the semester,
30 rarely leaving their creative assessment to the night before (as happens so frequently
31 on other modules). It is a repeating refrain in the literature on use of digital
32 storytelling in classrooms, from elementary school students to higher education:

² Many, however, are more than happy to post fanfiction online. It is worth noting, however, that most fanfiction is posted under anonymizing pseudonyms.

1 students working in digital media have significantly increased levels of engagement in
2 their coursework (Hull, Stornaiuolo and Sahni, 2010; Ryan, Scott and Walsh, 2010;
3 Letter, 2015; Williams, 2016). My own students have successfully negotiated, as a
4 class, higher word counts for their digital work, so they can do more and push their
5 digital fictions further. Students are interested in doing something new with their
6 writing, in playing with technology, in being *original*. Likewise, they are excited to
7 create texts that resonate with their peers, with the digitally-integrated spaces they
8 engage in outside of academic realms (Williams, 2016, p. 127). They gain confidence
9 in creating something new and interesting in the technological world they most
10 connect to. They read Jennifer Egan’s short fiction and lament they’ll never be good
11 enough to publish in *The New Yorker*; they read her same work as a Twitter novel and
12 think, *hey, I can do that, and it will be fun*.

13 Given these perceptions in our students, it is important that we as creative
14 writing tutors maintain environments that encourage creative writers to express
15 themselves in variety of ways to suit different orientations, styles, and audiences.

16 It is both fascinating and important to consider how the opportunity to
17 multiplicatively combine and design image, color, and text on a page,
18 thereby exercising one’s artfulness and imagination as communicator
19 and creator, can expand meaning-making strategies, opportunities, and
20 motivations for youthful authors (Hull, Stornaiuolo and Sahni, 2010, p.
21 347).

22 Multimodality is a democratizing force (Hull and Nelson, 2005, p. 253): it enables
23 writers to play to different strengths, whether their own communicative or artistic
24 strengths, or the strengths of a chosen medium or genre. It allows students of different
25 backgrounds, cultures, linguistic levels, areas of interest, fandoms, genre preferences,
26 and communication styles to compose texts in a wide variety of methods—a
27 multiplicity that we as instructors could never strictly delineate and define (and
28 *shouldn’t*, in the interests of developing multiliteracies in our students). It allows us as
29 instructors to engage students not only in the genres and forms we want them to learn,
30 but to engage them in genres and forms they already navigate on a daily basis
31 (Williams, 2016, p. 122).

32 This democratization occurs not only between tutors and students, whose
33 mediatized environments can be enormously different (given factors such as age,
34 education, political affiliation, social networks, etc.), but also between students of
35 different backgrounds. The divides between student experiences and capabilities are

1 factors of culture, education history, and, mostly, socio-economic background (Cope
2 and Kalantzis, 2009; Letter, 2015). At university level, most of our students are
3 generally of a level, thanks to admissions procedures. As more and more (UK)
4 universities, however, seek to expand admissions through international admissions,
5 we find ourselves teaching increasing numbers of ethnically, culturally, and
6 linguistically diverse students, as well as English as a Second Language (ESL)
7 students. The latter in particular face significant communication and learning gaps, as
8 they “must *simultaneously* learn both language and subject matter knowledge in a new
9 sociocultural context” (Early and Marshall, 2008, p. 378, emphasis original). Multiple
10 studies have shown that multimodal analysis and assessment strategies not only
11 connected better with these students, but also enabled more nuanced understandings
12 of abstract concepts and theories (Early and Marshall, 2008; Skinner and Hagood,
13 2008; Ryan, Scott and Walsh, 2010), as well as offering “psychological refuge” from
14 the constant pressure and self-doubt that accompanies learning through an unfamiliar
15 tongue (Choi and Yi, 2015, p. 15).

16 Likewise, digitally-enabled multimodal practices offer students the
17 opportunity for knowledge exchange on both cultural and informational fronts. The
18 medium’s multimodality encourages expression through metaphoric and symbolic
19 semiotics, which vary across cultures and backgrounds. By sharing works
20 incorporating these various signs, not only amongst a classroom-based peer group but
21 online as well, students “experience cross-cultural perspectives involving
22 ‘cosmopolitan habits of mind’—the ability to recognize and negotiate differences
23 between competing global cultural perspectives” (Beach, 2012, p. 449; cf. Hull,
24 Stornaiuolo and Sahni, 2010). In addition to this cultural sharing, students also engage
25 in co-teaching (Short and Kauffman, 2000, p. 56) as they turn to one another for
26 operational or technical help with the software. Because an instructor leading a full
27 class in unfamiliar skills development will necessarily have their attention divided, the
28 students become active participants in trouble-shooting, teaching themselves how to
29 solve a problem or accomplish a goal (through trial-and-error, tutorials, or web
30 searches), then teach one another (Ryan, Scott and Walsh, 2010; Beach, 2012; Letter,
31 2015). They become independent learners, “[participating] in the learning commons
32 to share ideas and alternative perspectives for addressing problems leading to...an
33 essential 21st-century digital literacy” (Beach, 2012, p. 451).

1 **Considerations for Teachers**

2 Multiliteracies, including digital literacy, are not yet standard pedagogical aims; we
3 cannot expect our students to enter our classrooms possessing the necessary literacies
4 to construct digital fiction in the same way we can for prose fiction. Even moreso,
5 *instructors* are unlikely to possess these multiliteracies as a rule. I once had a
6 workshop leader preclude science fiction submissions in her class—not necessarily
7 because she looked down on the genre, but because, in her argument, she was not
8 familiar enough with it to be able to comment on it or mark it. For teaching digital
9 fiction, the problem is multiplied by the fact that not only may the instructors feel
10 inadequate to teach it (Clancy, 2015), their students are unlikely to have much
11 familiarity with it, either. With administrative pressures such as student evaluations,
12 external examiners, Teaching Excellence Framework (TEF) and the National Student
13 Survey (NSS) in the UK, university instructors are understandably reluctant to embark
14 on a situation wherein the blind may be leading the blind, as it were. Yet the
15 numerous instances where digital storytelling and other multimodal methods have
16 been employed in classrooms (Ryan, Scott and Walsh, 2010; Choi and Yi, 2015;
17 Clancy, 2015; Letter, 2015; Williams, 2016)—even by instructors at least initially
18 unfamiliar with the technology—demonstrate that these concerns can be mediated,
19 and the benefits outweigh any stumbles that might occur.

20 Regarding students and the literacies they bring in to the classroom, many
21 instructors overestimate their students' capabilities. The “digital divide” places age-
22 based expectations on so-called “digital natives” that don't actually bear out; as Amy
23 Letter points out, “[t]he only divide that has proven genuine is a socioeconomic one”
24 (2015, p. 179). As digital interfaces have evolved toward consumer accessibility,
25 users actually have less incentive to get into the guts of the digital media they
26 participate in on a daily basis; most of the creative activity in any community comes
27 from a relatively small proportion of “super-users”. In the area of digital fiction,
28 particularly, given the form has not (yet) significantly entered the mainstream,
29 students are generally largely unfamiliar with it. Thus the good news: our students are
30 unlikely to enter our digital writing classrooms knowing more than we do about
31 digital fiction. And the bad news: our students are not entering into our digital writing
32 classrooms already armed with the skills they need to create digital fiction, despite our
33 expectations of them as “digital natives”.

34 If we are to implement a multiliteracies approach in creative writing

1 workshops, incorporating digital fiction and writing, then mitigating approaches to
2 close the gaps in instructor and student knowledge are required. The first of these is
3 the multiliteracies approach itself: by embracing a teaching model that is open,
4 flexible, and iterative, the classroom becomes a cooperative teaching and learning
5 space. The instructor is not expected to be a pinnacle of knowledge; rather, they serve
6 as a guide and mentor for the student to develop that knowledge through their own
7 activities (Cope and Kalantzis, 2009; Letter, 2015). If the students are engaged,
8 interested in creating a work that they can compare to those on a reading list or even
9 from their own digital interactions outside the classroom, “we can have them engaged
10 in a digital writing process that focuses first on the writer, then on the writing, and
11 lastly on the technology” (Hicks, 2009, p. 8). The process of learning the technology
12 for creative purposes teaches critical problem-solving skills, develops the task-
13 switching required for working in digital environments, and can even serve as a form
14 of artistic restraint, inspiring new directions for their work (Letter, 2015).

15 What is required of the digital writing instructor, then, is not extensive
16 knowledge of digital fiction softwares, but rather to serve a more Miyagi-like role: to
17 ask analytical questions and pose creative challenges that encourage the students think
18 more deeply about their work and approach it from relevant and fresh perspectives
19 (Ryan, Scott and Walsh, 2010). A first-person example: as a graduate teaching
20 assistant in a media department, I was chosen to lead workshops on digital media
21 modules merely because I had audited them the previous year; I barely managed to
22 keep a week ahead of my students in terms of the skills I was teaching. Workshop
23 sessions were a nightmare of trouble-shooting students’ issues with their work; if I
24 couldn’t suss the issue in-class, I worked on it on my own time and delivered the
25 solution to the student in the next session. I spent many (unpaid) hours chasing down
26 these issues, feeling inadequate and frustrated. In contrast, in my most recent Playable
27 Fiction module, many of my students integrated elements into their digital fictions
28 that I still have no idea how to do, and spent no time in learning. Instead, I created an
29 expectation that their works only had to have the bare basics of digital fiction
30 (hyperlinks); further functionality was via their own skills and intrepitude. As a result,
31 they googled and followed tutorials and tested things out and shared amongst
32 themselves. These students gained far greater abilities than my earlier students did,
33 not only with the softwares, but also in problem-solving and cooperation.

34 Outside of the spheres of instructor and student literacies, a further constraint

1 on the digital writing workshop remains: university infrastructure. As discussed
2 above, digital fiction is intangible, evanescent, and appears in a wide array of forms,
3 under just as many nomenclatures. Digital writers use any and every software
4 platform available to them, from expensive professional creative suites to ubiquitous
5 programs like PowerPoint. It is a form that cannot yet be catalogued and accessed via
6 a library: as most is not commercial, it cannot be purchased; likewise, without
7 commercial publishing streams, digital fiction is dispersed throughout the web, with
8 no central distribution hub. Without these centralizing forces, digital fiction is
9 difficult to track and archive: there is, as yet, no cataloguing system such as ISBNs,
10 and continually updating digital technology renders many works unreadable in
11 devastatingly short periods. While groups such as the Electronic Literature
12 Organization and the Electronic Literature Lab³ are establishing archives and
13 collections, these remain a small fraction of the wealth of digital fiction that exists,
14 and rarely include the more “popular” forms that students are more likely to connect
15 to in their introduction to digital fiction. Currently, the onus is on each individual
16 instructor to construct and maintain an active reading list of digital fictions for
17 students to engage with (suggestions for doing so are below).

18 As for platforms to use for creating digital fiction, these also have a quality of
19 evanescence, depending on their cost, uptake, and, most importantly, continued
20 development and support. Many that I employed in my digital media modules in the
21 last few years have come and gone. On the upside, developers are continually
22 introducing new platforms that make content creation ever cheaper (usually free) and
23 ever easier; on the downside, technology is moving swifter than ever, as are user
24 trends and habits. Even if a tech or platform remains, often our students perceive it as
25 outdated and uninteresting (see their shift away from Facebook toward Instagram and
26 SnapChat—which, by the time this article publishes, will likely be antiquated). Again,
27 the onus is unfortunately on the individual instructor to find a platform that works best
28 for their aims and students, and to seek out new ones on a regular basis (again,
29 suggestions are below).

30 **“Playable Fiction” as a Model**

31 In this section, I outline the digital fiction workshop that I teach regularly, offering it

³ Respectively, <https://eliterature.org/electronic-literature-archives/> and <http://dte-wsuv.org/wp/ell/>.

1 as a model (though not *the* model; many iterations are possible, of course). It is worth
2 noting that I created this module for dual purposes: 1) to introduce a digital fiction
3 workshop into my department's undergraduate program, which had none at that stage,
4 and 2) to conduct ethnographic research into the effects of digital composition on
5 creative writers' practice (Skains *et al.*, 2016; paper in preparation). The structure of
6 the module and its assessments are predicated upon this latter purpose.

7 Playable Fiction is a 12-week taught undergraduate module, taught in the
8 spring semester of even-numbered years. It is designed as an exercise in experimental
9 writing, aiming to “interrogate and analyze the effects of experimenting with
10 unconventional/unnatural forms on conventional or commercial writing practices”⁴.
11 As such, the first five weeks of the module focus on reading and writing Twine
12 storygames; weeks 6-9 see the students transmediating their own storygames into
13 prose; and the final three weeks are spent analyzing the process and narratives for
14 insight into how writing in digital form affects the creative writer's practice. The three
15 assessments consist of a 2000-word “storygame”⁵, a 3000-word prose adaptation of
16 the storygame, and a 2000-word analysis of the creative writing process. The
17 module's weekly meetings are split into a 1-hour lecture (incorporating theory from
18 narratology, interactivity, and the evolution of narrative and play), a 1-hour study
19 group session (collaborative discussion and exercises are given and recorded, usually
20 relating the lecture discussion to their creative works), and a 1-hour
21 seminar/workshop in a computer lab (for creative exercises, beta-testing, and
22 workshopping). Creative readings include Twine games, hypertexts, interactive
23 fiction, and print ergodic texts (e.g., Mark Danielewski's 2000 *House of Leaves*)
24 (Aarseth 1997). Students complete weekly activities based on critical discussion
25 questions and writing exercises, directed toward completion of their three
26 assessments, and record them in research logs (Evernote notebooks shared with the
27 instructor).

28 The digital fiction software I employ on this module is Twine
29 (<http://twinery.org>). I have covered the history of this program elsewhere (Ensslin and
30 Skains, 2017); the short version is that Chris Klimas created it expressly to compose

⁴ The fully validated module description can be found at
<<https://www.bangor.ac.uk/ar/gazettes/module?gazyr=201718&module=UXS-2412&lang=>>.
⁵ I initially set the storygame to 1500 words; students overwhelmingly begged for more space to
explore these texts, so it was rounded up to 2000. As the second assessment is a transmediation rather
than a new assessment, most of those 3000 words are taken from the first assessment.

1 digital fiction—unlike many other platforms that were appropriated from multimedia
2 authoring tools—and indie game developer Anna Anthropy embraced it and promoted
3 it (2012). The result was that a significant proportion of indie game developers who
4 were under-represented in the games industry (LGBTQ+, women, religious and ethnic
5 minorities) took up the platform for personal and portfolio development. Rather than
6 letting it fade away into obscurity (as he nearly did), Klimas released Twine 2.0,
7 which runs in any Internet browser and requires no download. As the Twine
8 community grew, so too did its resources: it boasts extensive online tutorials, which
9 grow all the time. It remains one of the simplest digital composition tools I have
10 encountered to date, with the greatest capability for adding complexity and
11 functionality (thanks to its JavaScript foundation). It outputs as HTML files, easily
12 saved and easily published, with all the accessibility of the World Wide Web. At its
13 most basic, it requires only two elements: passages and links. Passages form the text
14 the reader will see, and links connect them together (see Figures 1-3).

15

16 **Figure 1. The Twine interface: Passages are represented as white boxes; links are represented as arrows**
17 **between boxes.**

18

19 **Figure 2. A Twine passage: users write their text in these passages. Links are created in this Twine "Story**
20 **Format" by placing two square brackets around the text to be linked.**

21

22 **Figure 3. The passage from Figure 2 as displayed for a reader in an Internet browser.**

23 I have had elderly students create basic hypertext fictions using Twine 2.0
24 within 30 minutes, and teenagers create multimedia games over the course of a week.
25 In their five weeks with the program, undergraduates on Playable Fiction go from
26 complete unfamiliarity with it, to submitting a fully functional digital fiction:

- 27 1. Week 1: Introduction to Twine. Read a few Twine games, play with
28 the software. Create a simple story, such as a joke or recent event, to
29 get familiar with creating links and passages.
- 30 2. Week 2: Share and play your simple Twine games. Create a storygame
31 “bible”, and “wireframe” your storygame (see Heussner *et al.*, 2015).
- 32 3. Week 3: Share and discuss storygame bibles. Draft storygame.
- 33 4. Week 4: Beta-test storygame. Revise per feedback.
- 34 5. Week 5: Beta-test storygame. Revise per feedback. Submit final
35 storygame in Week 6.

1 As noted, this module is designed as an experiment into practice; as such, digital
2 writing occurs only in these five-six weeks. Without research constraints on a module,
3 instructors can expand the workshop to include the full course of the term,
4 incorporating further beta-tests, additional digital fictions, and alternative writing
5 exercises.

6 One additional consideration to incorporate into any digital media module is
7 that of intellectual property and copyright. Most students are immersed in their
8 everyday lives in a culture of sharing and remix (Williams, 2016, p. 120); the creation
9 and sharing of memes and videos rarely entails proper attribution for creators of the
10 various source materials. Yet proper assignment of intellectual property rights is a
11 desirable learning outcome in academic settings. Integration of copyright discussions
12 into digital writing classrooms is good practice, particularly as these students may
13 move into professions where they are using digital materials, and need to use them
14 appropriately, such as media creation, marketing, or creating web content. While
15 using various materials for educational and/or transformative purposes typically
16 constitutes “fair use”, students should develop a habit of checking the rights assigned
17 to properties they access, save, and incorporate into their works, and using and
18 attributing them appropriately.

19 *Marking Digital Fiction Writing*

20 Unlike my old workshop leader, I embrace an open philosophy when it comes to
21 student submissions; my concerns as a teacher are not that my students write what *I*
22 know. Rather, I deem a work successful if it is meeting the needs of its (intended)
23 audience. Students come to creative writing for many different purposes; the ones
24 who seek out my classes are often those who, like Anna Anthropy and her
25 community, feel shunted by the “literary” expectations of the Carver-modeled
26 creative writing workshops (which often preclude writing outside of “literary fiction”
27 and poetry) that dominate higher education programs. Frequently, my students are
28 interested in or have already written fanfiction, comics, genre fiction, and scripts;
29 most are also immersed in digital interactivity in some form, whether blogging, social
30 media, or games. Attempting to dissuade them from these pursuits is not only
31 disingenuous, it is detrimental to their futures as writers, whatever career path that
32 may take.

33 Thus my marking model emphasizes the *process* of writing and design, rather

1 than focusing solely on the end product. This is in line with Cope and Kalantzis’
2 Multiliteracies Pedagogy, which delineates a teaching model that guides students
3 through the processes of *experiencing* (both the known and the new); *conceptualizing*
4 (naming concepts and weaving them into interpretive frameworks); *analysing* (both
5 for functionality and for power relationships); and *applying* this experience,
6 knowledge, and understanding to work (both appropriately for real world contexts,
7 and creatively for innovation and new perspectives) (2009, pp. 184–5). Shelley
8 Tracey presents a very similar emphasis on process in her Model for Creative
9 Reflection, with its four phases of *preparation* (enacting “threshold activities” that
10 cross-reference between known and new experiences); *play* (encouraging creative
11 thinking, interpretative approaches for new ideas); *exploration* (purposefully putting
12 these interpretations into a new project); and *synthesis* (in which “experience and
13 learning are synthesized into new understandings”) (2007, p. 5).

14 I have transitioned my marking (on all modules, including Playable Fiction)
15 from a model in which only the final creative artifact is marked, to one in which all of
16 the activities leading up to that artifact are part of the marking scheme. This scheme is
17 based in Linda Nilson’s Specifications Grading model (2014), which provides a
18 useful framework for focusing on processes and activities rather than a single final
19 project (without making the marking into an odious task). In my application, the final
20 artefact is the *minimum* required element of any assessment: if a student submits *only*
21 this element, regardless of how outstanding it may be, the highest mark it can receive
22 is a D+ (working on a letter-grade system in which A is the highest band and D is the
23 minimum pass level). All of the weekly exercises I assign leading up to that artifact
24 constitute pass/fail exercises that pop their scores up with each one that is successfully
25 completed and presented—on time—in class (i.e., the exercises as noted above: 1]
26 simple storygame, 2] storygame bible, 3] draft storygame, 4] beta-testing results and
27 feedback, 5] revised draft). I design my contact time so that I review their exercises
28 while they are doing in-class activities such as group work or creative exploration,
29 eliminating the need for extra time spent marking outside of contact hours—a
30 consideration sorely needed in these times of increasing faculty workloads and
31 student numbers.

32 One amendment I have made to Nilson’s model is to the pass/fail binary.
33 Instead, I use a system of marks 0-3, as shown in Table 1, ranging from “not
34 submitted” (0) to “satisfactory-plus” (3) for exemplary, A-level work. Students who

1 consistently receive 2s on their work will earn a B-band mark on their overall
 2 assessment; students who consistently receive 3s, including on the final artifact, will
 3 earn an A-band mark. I give all students Nilson’s recommended “tokens” (usually 2-3
 4 per module), which they can trade in to me in order to resubmit an exercise for a
 5 higher score, to submit an exercise late, or even for more creative uses such as
 6 negotiating a higher word count allowance on creative assessments.

7 **Table 1. Exercise Scoring Standards**

Score	Exercise Standards
0	Not submitted
1	Unsatisfactory: Exercise submitted, but lacks professional polish, and may be limited in terms of informed approaches. Lacking evidence of revision for purpose.
2	Satisfactory: Exercise submitted, shows evidence of informed thinking and revision for purpose.
3	Satisfactory-Plus: Exercise shows evidence of innovative thinking and revision for purpose, and its discussion synthesizes theory/practical references covered on the module.

8

9 As this paper is focused on the Playable Fiction module as a model of teaching
 10 digital fiction writing, and not a model of specifications grading⁶, it does not have the
 11 scope to analyse and evaluate this approach fully. Suffice it to note that the results of
 12 this implementation have been very positive: student engagement has increased, in
 13 terms of attendance and completion of weekly exercises. The final artefacts the
 14 students submit, for those who have engaged in the entire process, demonstrate more
 15 cohesion and polish on average than those I received under the previous marking
 16 model. Student evaluations are generally very positive: students like knowing *exactly*
 17 what they have to do to earn the mark they want, and they like the opportunities
 18 presented by the tokens to improve upon previous work. The few negative evaluations
 19 are typically from non-attenders who are otherwise good writers, and have previously
 20 coasted on their abilities, rather than their engagement with individual modules and
 21 learning outcomes. As creative writers, most students appreciate the incentive to
 22 engage with their writing practice on a more regular basis; they know it is a necessary
 23 part of improving their writing, but most have not yet developed sufficient self-
 24 discipline or time management skills to maintain a steady practice. For myself as an

⁶ I maintain a full breakdown of my specifications grading module model, including links to sample module documents, here: <http://lyleskains.blogspot.com/2018/09/my-take-on-specifications-grading-or.html>.

1 instructor, the benefits are that I see the students' work more frequently, and can
2 gauge much earlier if they (either as a group or as individuals) are struggling. I spend
3 less time outside of contact hours marking work; as the students are getting regular
4 measures of their work's standards and participating in far more peer feedback, their
5 final artefact is not so heavily weighted, and thus needs less of my feedback. Finally,
6 from an institutional standpoint, students' average performance on these modules has
7 increased: students who work hard through the *process* almost always achieve a B-
8 band mark, rather than the lower scores they might receive based on only one piece of
9 work. Thus scores improve without need for artificial grade inflation or marking on a
10 "curve".

11 A final note on marking for instructors unsure of where the lines between
12 "unsatisfactory", "satisfactory", and "satisfactory-plus" may fall in works of digital
13 fiction. An excellent starting place for marking rubrics is Troy Hicks' MMAPS
14 heuristic, which he presents thoroughly in *The Digital Writing Workshop* (2009, pp.
15 57–8). The text is aimed at primary and secondary school educators, but the concepts
16 are applicable to undergraduate classrooms, particularly the heuristic, which places
17 the marking evaluation on choices the student has made in terms of Media,
18 communication Mode, meeting the Audience's needs, demonstration and
19 accomplishment of the text's Purpose, and how the work addresses both the writer's
20 and the *writing's* Situation (MMAPS). This heuristic allows the instructor to evaluate
21 a work not by their own standards, but by the standards of the work itself: how
22 successful it is in defining and meeting its creator's and audience's needs. Mapping
23 these criteria against the learning outcomes defined on an individual module provides
24 a robust marking rubric that can be adaptable to any instructor's level of knowledge
25 and familiarity with their students' chosen genres, audiences, and purposes.

26 *Resources for Teaching Digital Fiction Writing*

27 As discussed above, I (currently) recommend Twine as a software platform for
28 creating digital fiction, particularly for the uninitiated. Twine has numerous qualities
29 recommending it: it is free and open source, qualities not only in keeping with
30 Internet culture and Creative Commons, but which make it cost-effective for any
31 classroom regardless of budget. Twine 2.0 is browser-based, which makes it
32 absolutely platform-independent, so no matter what machines are available to
33 instructors or students, as long as they have internet access, they will be able to run it

1 (it also has a desktop version for those without reliable internet connections). It has
2 extensive online tutorials and communities, enabling students to seek out instructions
3 for functionality they want, rather than relying on instructor know-how. It is
4 extremely simple to use in its most basic functions (passages and hyperlinks), but its
5 JavaScript foundation presents almost unlimited possibilities for media interactivity
6 for the more advanced (a factor in the indie games scene's approbation of it). Further,
7 both the working files and the output files are HTML, making them easily sharable
8 and readable on any machine (a relief for instructors like me, who prefer one platform
9 or OS, while having to teach on another).

10 Nonetheless, Twine might not be for everyone. At its core, it is a hypertext
11 machine, and not all digital fictions must be hypertexts. Because it is so user-friendly,
12 little to no programming is required, leaving out a very useful literacy for today's
13 students. Depending on instructor preferences, program and module learning
14 outcomes, and various other factors, other platforms may be more appropriate. Twine
15 is certainly not the only tool available or already in use in classrooms; Table 2
16 outlines those that are (currently) most prominent, with a few of their features and
17 considerations⁷.

⁷ Any list of digital technologies is obsolete almost as soon as it is composed; to produce one for a journal article is almost folly. Once this table is out of date (so...now), readers may turn to the online version I maintain for digital writers, where you may also make suggestions for additions or edits: http://wonderboxpublishing.com/news_reviews/df-resources/.

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Table 2. Currently available digital fiction softwares

Software	Location	Cost	Platform	Ease of use	Skill level required	Digital fiction type(s)	Output type	Available support
Twine	http://twinery.org/	Free	Any (browser-based)	+++	None to low	Hypertext Hyperfiction	HTML	Online tutorials; YouTube videos; community forums
Texture	https://texturewriter.com/	Free	Any (browser-based)	+++	None to low	Hypertext Hyperfiction	HTML	Online tutorial; Public Library of works
ChoiceScript	https://www.choiceofgames.com/make-your-own-games/choicescript-intro/	Free	Any (browser-based; Firefox recommended)	++	Low	Multiple choice storygame	HTML	Online tutorials; community forums
Inform7	http://inform7.com/	Free	Mac OS; Windows; Linux	+	Medium to high	Interactive fiction / text adventure game	Glulx; Z- machine (require interpreters)	Extensive manual; online tutorials; published guides; community forums
TADS	http://www.tads.org/tads3.htm	Free	Mac OS; Windows; Linux	+	Medium to high	Interactive fiction / text adventure game	TADS (requires interpreter)	Manuals; online tutorials; published guides; community forums
Adrift	http://www.adrift.co/	Free	Windows	+	Medium to high	Interactive fiction / text adventure game	ADRIFT (requires interpreter)	Manual; online tutorials; community forums
Quest	http://textadventures.co.uk/quest	Free	Windows; any (browser-based)	++	Low to medium	Interactive fiction / text adventure game	HTML	Online tutorials; community forums
Ren'Py	https://www.renpy.org/	Free	Mac OS; Windows; Linux	+	Medium	Visual novel	Program files for each platform	Manual; tutorials; community forums
Adobe Animate CC (formerly Flash)	https://www.adobe.com/uk/products/animate.html	£20/ mo	Mac OS; Windows	-	High	Hyperfiction Games	SWF (requires Flash player)	Manual; online tutorials; community forums

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Those most commonly used in undergraduate classrooms to create digital fiction (and games) include Inform7 (Reed, 2015), Quest (Ballentine, 2015), and Adobe Animate/Flash; the latter is frequently used for wider purposes, including animation, games development, and interactive websites, as it is an industry standard. Its costs, however, and high level of skill required, not to mention its deprecation on most mobile operating systems and many Internet browsers, put it at the bottom of the list for most digital fiction scenarios. Adobe Flash was the height of technology for digital fiction in the 2000s; once Apple announced it would not be supporting Flash on its platforms, however, digital writers turned to more open platforms based on HTML/CSS/JavaScript and HTML5. So while many students aiming for careers in media development may benefit from skills on this program, as a basic tool for digital fiction it is not worth the high cost, steep learning curve, and frequently buggy functionality in university IT infrastructures.

In terms of reading lists for students, there are many options, but as yet no definitive guides for selection. The AHRC-funded Reading Digital Fiction project has published a “Resources for Readers” page (<https://readingdigitalfiction.com/resources-for-readers/>) (2016) that offers a few suggestions for starter readings in various digital fiction forms and genres, and includes a link to a “Beginner’s Guide”. The Electronic Literature Organization maintains a three-volume collection of e-lit (also including digital poetry) accessible at <http://collection.eliterature.org/>. While this collection continues to grow, it is a “mirror of a specific moment in time occurring across continents, languages, and platforms” (Boluk *et al.*, 2016, p. np); as such, it lends itself to browsing rather than offering an easily searchable and filterable database for selection of works. The Interactive Fiction Database (<http://ifdb.tads.org/>), on the other hand, is just that: a database of mostly parser-based and hypertext interactive fictions (built with Inform7, TADS, and Twine), though it is open to all forms of digital fiction. It includes a tagging and review system that better enable searching and selecting items for reading lists. Its limitations are in its community: it is far more populated by those creating puzzle-based games, interactive fictions, and Twine games than other forms of digital fiction. Nonetheless it is a solid option for seeking out texts to read. Other options include lists of winners and nominees for digital fiction prizes such as the New Media Writing Prize (<http://newmediawritingprize.co.uk/>) and the Opening Up Digital

1 Fiction Competition (<http://openingup.wonderboxpublishing.com>). Branching further
2 out, itch.io is a publishing site for indie games, many of which are constructed with
3 Twine and cross boundaries between games and digital fiction, as do “walking
4 simulator” games that are frequently published through Steam.

5 **Conclusion**

6 There is a general attitude around digital media that they are “killing” the book, or
7 that they herald “a movement *away* from the traditional text-based methods of
8 teaching and executing creative writing. The shift is unsettling for many instructors”
9 (Clancy, 2015, p. 165, emphasis original). Yet Donna Alvermann urges us to let go of
10 this worry over the (perceived) loss of print culture, lest we risk short-changing the
11 education and lives of our students (Alvermann, 2009, p. 23). Engaging in
12 multimodal, digital creativity is just the sort of multiliteracies education we should be
13 striving for—not the least of which is because it inevitably leads our creative writing
14 students back to written text (Hicks, 2009; Clancy, 2015; Koehler, 2015) that enables
15 continued renewal of print fiction, while also inspiring them to explore new territory
16 and experiment with fresh techniques and perspectives.

17 Shifting our own pedagogical perspective to appreciate the meaning-making
18 opportunities that have expanded beyond the page, thanks to digital media, enables a
19 focus on design-centred narrative storytelling. It emphasizes attention to the reader
20 and their experience, to the modes and methods of conveying meaning, and generates
21 a naturally iterative and reflective practice. The Playable Fiction model described in
22 this paper offers a holistic, multiliteracies approach to the creative writing workshop.
23 It strengthens students’ communication, writing, and storytelling skills as well as
24 giving them a framework to deepen their creative practice. A marking scheme that
25 centres on process rather than final artefact engenders a reflective, creative,
26 developmental atmosphere that improves student work while relieving pressure on
27 them to have a single high-earning performance.

28 These adaptations offer positive approaches to teaching creative writing,
29 particularly given current pressures higher education instructors face. We are asked
30 not only to engage our students in a basic learning process, to help them meet the
31 learning outcomes of individual modules and programs, but also to earn positive
32 feedback on module evaluations, to consistently return excellent NSS and TEF
33 results, to maintain high levels of retention, to graduate students with competitive

1 degree results, and to imbue our students with qualities that ensure job and career
2 success. All the while facing higher workloads, more job insecurity, and greater
3 pressures in other aspects of our roles. The model offered here is not a total solution
4 to these pressures, of course, but it can alleviate some issues, such as the pressure to
5 (sometimes artificially) inflate student marks, to offer the same level of instruction to
6 more and more students (thus increasing time spent marking), and to better engage
7 students in their modules—and, indeed, their own learning process.

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25 **Conflicts of interest**

26 The author declares that they have no conflicts.

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30 **Data Availability**

31 All data generated or analysed during this study are included in this published article.