

Introduction

Why Twine?

In March 2020, classrooms around the world were abruptly shuttered and life moved online. In an interactive storytelling class at the University of Central Florida (UCF) that semester, we were in the middle of a unit on interactive fiction, working with Twine and discussing strategies for crafting hypertextual narratives. Twine is a platform for personal storytelling and individual disruption on an increasingly corporate web. The software, and the work it enables, is deceptively simple: the visual interface emphasizes approaching creation through metaphors of passages and links. Thanks to its combination of educator-friendly development decisions—the software platform is free to use, easy to access through a browser without installation, and well documented with a beginner-friendly learning curve—Twine makes frequent appearances in courses of this kind around the world. However, this association might suggest a tool for beginners, to be used and moved beyond. Twine is more than that—as a platform, it can be the destination as well as a tool for making the journey to creating interactive works.

We started that class meeting with a round of exquisite corpses (if you'll forgive the term): writing story beginnings on paper and folding away all but the last words and passing them around the room to take unexpected twists. The stories took dark turns almost immediately—the

news was already grim, and Twine didn't present much of an escape. Each class meeting opened with an apology for the examples featured. So many of the most powerful works made in Twine draw us into moments of despair: Zoë Quinn's *Depression Quest*, with its simulation of the struggles of moving forward with clinical depression; Anna Anthropy's *Queers in Love at the End of the World*, which places the player in fleeting last moments with a lover; Michael Lutz's vision of horror and abuse in *My Father's Long, Long Legs*—the list goes on and does not include many of the escapist narratives still inextricably linked to our expectations of games. In the moment, some of these works became even more loaded, resonating differently as we played through our fears.

This is not to say Twine is only a tool for making depressing things or that Twine and hypertext must go hand in hand with crisis, struggle, and turmoil. However, Twine is a tool that particularly resonates for those with something personal to say, and Twine's importance and visibility on the web have often risen correspondingly with conflict (there is more to say about this in chapters T-4 and T-5). At a time when our technology is increasingly complex, sealed in tiny boxes and inscrutable to most of its users, Twine is transparent and open. At a time when our software is produced by large teams, with most of the production members hyperfocused on a project part, Twine allows a single person to develop an interactive experience holistically, without relying on any external specialist's knowledge. Twine is a tool for resisting the dominant interactive storytelling of our times and, as such, tends to be a tool for chronicling resistance and struggle.

But to return to the classroom the teaching of the theory and practice of interactive storytelling is an interwoven challenge of competing histories and terms. To gamers, the history has been written by mainstream game design companies and with increasingly cinematic visuals accompanying lavish environments. To electronic literature authors and scholars, it is a history told in competing platforms and continually deprecated tools, pushed to their limits for narrative experiments. To interactive fiction players and authors, it is a history of textual play and riddles, told in parsers and, sometimes, in hypertexts. Crafting a course in this area requires navigating these competing histories as well

as students' own very different visions of what interactive storytelling should become.

Twine doesn't fit into any one of these histories—it moves freely among all three. Created by independent software developer Chris Klimas and released in 2009, Twine has gone through several iterations and includes a range of story formats that extend the underlying editor's capabilities to allow creators to build a wide variety of stories and other textual constructions. The second iteration of Twine, Twine 2, extended the accessibility of the platform by bringing a browser-based version of the development tool to users (Klimas). The things both Twine and Twine 2 allow users to make are united by their emphasis on choice, as Twine is at its heart a system for making passages and links that the user navigates to different ends. These choice-based systems can in turn become, in the hands of different makers, a platform for making games, crafting electronic literature, building simulations, documenting experiences, or telling interactive fictions. The resulting range of works confounds inclusion in the categories of “game” or “story,” a false binary we will question throughout this work.

To return to our classroom, we were approaching Twine first through this lens as a user-friendly tool: at its base, Twine offers a graphical framework for making hyperlinked content, most often compacted into a single hypertext markup language (HTML) file (barring external resource files, such as images and sounds) for easy web distribution and longevity of access. Twine's tagline in the GitHub repository, where the history of the code is embodied in versions and iterations spanning years, describes it succinctly as “a tool for telling interactive, nonlinear stories” (Klimas). It is open-source and user-friendly, often recommended to newcomers to interactive making for whom code and procedural, rules-driven thinking is unfamiliar. In a classroom of students from different backgrounds, with varying knowledge of programming, Twine can be an equalizer—the quality of the story created has little to do with expertise in code but instead is driven by the honesty of the narrative and the crafting of the experience.

These are the Twine concepts we were working through together, offering players choices but then restricting them to produce

manageable—and meaningful—narrative play. In that final, in-person meeting, we didn't know that we wouldn't be seeing one another for a long time, that our daily choices would be changing, as the restrictions and rules under which we operate were abruptly rewritten for public safety. We didn't know when we'd see the new fears of public spaces change—indeed, we still don't know. The broader landscape of the communities making interactive narratives is still shifting to adapt as I write this. The Game Developers Conference was canceled, with online talks replacing the largest annual gathering of the games industry. LudoNarraCon 2020 and NarraScope 2020, two celebrations of narrative video games and interactive fiction, respectively, moved online to streaming video rather than physical gatherings. We will address these types of gatherings, and their role in shaping Twine and the surrounding community, throughout the work—while Twine exists online, such physical convenings have been a part of building Twine's influence.

It is thus no surprise that when the students' Twine stories were finally submitted online, weeks later, many of them dealt with COVID-19. The original final project for the class was simplified in favor of Twine's spiritual compatriot Bitsy, a graphical, web-based platform for small games with constrained, pixelated graphics and an emphasis on exploration and dialogue. The interactive stories of the rest of the semester frequently reacted to the moment—students built games about being confined in a room or dodging viruses in the one-way aisles of a grocery store; stories captured the claustrophobia of the home or invited players into social-isolation baking. Stress and fear and boredom fueled these interactive works, made for the browser, playable quickly, resonating with one another in exchanges through the class discussion forums.

One genre that persists in interactive fiction—particularly of the parser variety, where players input combinations of nouns and verbs to interact with a system, solve puzzles, and progress in a narrative—is the locked room. (One of our practical examples, *Twine Box* in chapter P-5, puts a twist on this theme.) A digital kindred of the physical escape room, the locked room in adventure games always presents the player with a variant on the same challenge: to get out. By contrast, the games

that COVID-19 has inspired focus on the internal struggles of staying in. Within the locked room, players struggle with internalized anxiety, domestic tasks, and monotony. The threat of the external is ever-present, but the resistance of temptation and need to leave dominates. This theme recurs in the Twine games posted to events like the “Quarantine Game Jam.” G. Deyke and Damon L. Wakes’s *Quarantine Quest* entry in the jam (figure 1) opens with the real and moves quickly into the surreal, imagining nightmare scenarios and inviting the player to reflect through them (Deyke and Wakes). Games like these emerge in the moment, without the need for large investments in time or capital, and with no delay between the moment of completion and release.

This is where Twine excels—in the internal, the personal, and the immediate. We could take any large event and find similar traces—Twine games responding to the 2016 election in the US and to Brexit; Twine jams at the height of the cultural war of Gamergate; Twine games responding to incidents of police brutality—Twine games as protest, as documentation, as an emotional response to a moment. Twine is part of a growing category of tools that focus on allowing rapid procedural



Figure 1: Killing time in the interior space of *Quarantine Quest* (Deyke and Wakes)

creativity, removing barriers of both hardware and knowledge. It also removes barriers in distribution, allowing for the rapid sharing of whatever is made, removing gatekeepers and creating an ease of “free” distribution (in the sense that any online trafficking is free). Twine’s accessibility for making is key to its impact. Using Twine and Bitsy for remote coursework allowed us not to worry about the power of any student’s computer: even students with Chromebooks or long-outdated machines could still load a web browser on even a limited internet connection and easily make, and play, the works these tools create. Twine is an ideal tool for this moment in teaching but also for this moment in living and making.

Defining Twine

When you first open Twine’s interface to make something, you are presented first with a request to name your story, followed by the opening of the screen to a grid with a single, untitled passage waiting for editing. The interface immediately communicates the basic instructions: placeholder text reading “Double-click this passage to edit it” waits for a rewrite. This opening explicitly recommends a story, but works produced in Twine go under many names: games, interactive fiction, stories, websites, quizzes, resources, essays, and so forth. Klimas notes this “confounding” variety as a strength of the platform he hopes only increases: “I also want it to be even more confounding, that not only can the world be unable to decide whether things made with Twine are stories or games, but also whether they’re sprawling commercial masterpieces or intensely personal stories. I want people—not gamers, not readers, just people—to experience something they love unabashedly and never realize it was made with Twine” (sub-Q).

Twine doesn’t offer a blueprint for what these confounding works might become, but its interface does encourage certain approaches: the size of a passage box, and the very term *passage*, encourages creators to think and work in nodes. The omission of any fixed structure for the organization of links allows for any thought to become a connection, with works emerging as the creator moves from thought to thought.

Passages are easily reorganized and moved, but their position has no impact on the story structure, offering authors a flexible design board for rethinking as they work.

Because it defies such easy categorization, Twine as a platform sits among many fields of study that we will draw on throughout this volume. Twine works evoke commentary on literary and aesthetic choices as well as design elements that center interaction and play. In this book, we will draw on the disciplines of literature (electronic and otherwise), film and media studies, games and software studies, and perhaps others as needed to make sense of Twine's influence. We hope the variety of our discussion is less "confounding" than thought-provoking or revealing, but in the words of an old hypertext fiction, "there is no simple way to say" what Twine means to us and the worlds in which we work—which brings us to another complexity (Joyce). This book contains more than commentary. Meant for active exploration as well as critical understanding, the book pairs each chapter of reflection with a chapter of practical exercises. Whatever else Twine may be, it is first for us a means for making.

However, as we reflect on Twine in 2020 in a time of international social distancing, we are also reminded that Twine's making is situated. Twine is continually reimagined in dialogue with cultural forces—and as a result of its continual usage in resisting the corporate hegemony of the games industry and the social-media-dominated, commercially platformized web. Twine encountered a surge of critical attention and visibility in 2014, at the height of Gamergate, a cultural war driven by misogyny and a reductive, purist view of gaming that left no room for the type of game-making that Twine enables. This attention took what is still a community-driven tool within games and interactive fiction spaces and moved it dramatically into the spotlight in a way that similar platforms, such as Inform 7, have rarely been centered, forever associating Twine with the culture wars even as its influence extends beyond that moment. Laura Hudson drew the popular gaze to Twine with her article on the phenomenon in the *New York Times*, which highlighted Twine (and Zoë Quinn's game *Depression Quest*) as the spark that fueled the raging conflict. Hudson calls Twine "the video-game technology for

all” and, in doing so, cements Twine’s centrality to alternative, personal game-making (Hudson). This emphasis on Twine’s influence in games communities can be viewed as a reaction to the lack of inclusivity in mainstream gaming spaces, as Carolyn Petit pointed out in her 2013 essay on Twine’s importance: “When games are by the people—by women and gay people and poor people and the culturally marginalized and kids growing up in Iran and not just primarily by the people who are paid to make them by companies selling products designed to appeal to as many customers as possible—they will inevitably be for the people, too. Twine is a small but important step in this direction” (Petit).

To its developers, Twine is a platform for making hypertextual things—a platform whose capabilities are continually being extended and reimagined in light of users’ creative interventions. To its critics and advocates, Twine is a tool for resistance and even revolution—for defiance and reimagining the future of genres of media production that were otherwise closed and stagnant.

In the introduction to the pivotal Twine-centered collection *Videogames for Humans*, merritt k calls Twine the force behind a “quiet revolution”: “Taken up by nontraditional game authors to describe distinctly nontraditional subjects—from struggles with depression, explorations of queer identity, and analyses of the world of modern sex and dating to visions of breeding crustacean horses in a dystopian future—the Twine movement to date has created space for those who have previously been voiceless within games culture to tell their own stories, as well as to invent new visions outside of traditional channels of commerce” (merritt k).

That collection documents Twine’s revolutionary potential through the words of many of Twine’s most influential creators, including Anna Anthropy, Christine Love, Zoë Quinn, and many others whose work we encounter here. To call such creative forces “users” of software is reductive—these creators have contributed to the platform, directly and indirectly, and provided the blueprints of how Twine works can explore the poetics of choice and its absence.

As scholars, we are admittedly adjacent to this revolution, looking in at least partly from the outside—and, some might argue, looking down

from the relative privilege and financial comfort of the so-called ivory tower (although in the wake of COVID-19, that same tower's foundations are shaking, if not collapsing). This positionality also impacted our approach to interviews, and we frequently relied upon existing material rather than ask for further time and resources from the creators whose work we engage here. We understand and acknowledge the limitations (and risks) of the academic gaze. Yet our relationship with Twine is still personal, and it is this thinking that guides our approach to Twine throughout the book: the histories we tell acknowledge our relationships with the platform, its creators, and the works herein. Our work with Twine is entangled with our own histories—this book was written alongside several years of reading, making, and teaching with Twine. The final manuscript was submitted during the first uncertain months of COVID-19-enforced social distancing, which in turn reshaped our collective relationship with the web. Scholarship is always driven by one's own perspective and position but is not always forthright about this connection. We argue here that Twine works demand personal and emotional engagement as well as theoretical and intellectual engagement and that, at times, these lenses are inseparable.

About the Book

This book is unlike a lot of academic projects. Its concerns range from autoethnography to close reading to something like critical code studies, from the abstractions of Wallace Stevens to the polychrome delights of “trash spinning.” It is both a critical study and a guide to creative practice. The mixed nature of the work flows from our subject, which is both a tool for making and a made thing. Twine is an unlikely proposition—a software platform crafted entirely by volunteers, some of whom have never met in person, and a worldwide community of creators who explore and expand the platform. To understand this phenomenon, we do a kind of history, or tell stories, primarily about the decade from 2009 to 2019 but with inevitable references to earlier moments—and also the present, as current events are very much with us.

About that “us”—the book is written in two voices, both of whom will say “I” on some occasions and may speak of themselves in the third person, though generally, you will find a broadly inclusive “we.” Though we wrote this book together in equal measure, we are different people, one a scholar in midcareer, the other an old hand closer to the end. To compare great with small, it is worth remembering the way Deleuze and Guattari open *A Thousand Plateaus*, observing that “since each of us was several, there was already quite a crowd” (Deleuze and Guattari 3). Like most people loosely aligned with the digital humanities—and there may be no other way to toe that line—we are by turns creative and reflective. We make things with various tools and platforms and think about the implications of what we and others have made. In some cases, the making and the thinking may be hard to tell apart, which is fine.

Above all, this book is a fusion of theory and practice. That is why we called it what we did: *Twining*, a noun derived from a verb, a name for an action or activity. The organization of this book encourages you to take up Twine’s invitation. Each section alternates between reflection and making. The treatments of theory (broadly construed) are labeled as T-X and position Twine as a platform and examine its trajectory of influence across cultural forms and domains. The practical segments, labeled as P-X, start with the fundamentals of Twine making, then explore different techniques and trajectories drawing upon ideas from the Twine creators whose work is examined throughout. Each example of practice includes its source code and thus can be modified, prodded, and remixed for your own purposes. Access this source code directly through the project’s GitHub repository, *Twining*, at <https://github.com/AMSUCF/Twining>.

Note that throughout this work, references and URLs are given to projects that are, like the web itself, unstable. The reference locations provided are the last available versions of those resources: in some cases, they can be accessed via the Wayback Machine, but in other cases, they are lost to the web. We hope through this work to play a small part in preserving this important history of contributions through our discussions, citations, and screenshots but acknowledge that even as Twine will continue to change, even the source code for these examples (and, indeed, GitHub itself) might eventually disappear.

The narratives and play-centered examples focus on the personal, literary, expressive potential of Twine, and we hope they provide seeds for your own making. Throughout, we also point to the resources already created and shared within the Twine community, such as the open-source Twine Cookbook (Cox). We cover a few of Twine's major technical variations or *story formats*, generally sticking with the Chapbook format and others currently popular among makers and writers, although those trends are subject to change as new voices enter the authorial sphere. Community resources like the Cookbook and similar online documents offer tools for taking your next steps in Twine making.

In the first theoretical chapter, T-1, we position Twine as a platform, looking at the influence of open-source ethos on development and positioning it in relationship to other tools both hypertextual and games-leaning. What makes Twine appeal to marginalized communities in the forgotten corners of the web, and how is this positioning distinct from the tools that have preceded it (and will, perhaps inevitably, follow)? How does Twine's relationship to code and not-code play an integral role in its reception and cultural rise? The practical section similarly introduces Twine but with a lens toward making, introducing the fundamental practices of passages and links and exploring the underlying assumptions of the code.

The first practical chapter, P-1, introduces the interface and operating framework of Twine, laying out basic concepts and nomenclature. Each practical chapter works through a series of exercises or projects. The series in chapter P-1 explores basic hypertext linking, moving from linear to multiline examples, exploring some of the creative and cognitive challenges of linked writing along the way. The mechanisms introduced are sufficient to create an expressive work in Twine: indeed, some of the most powerful works created make no use of the more elaborate mechanisms of code and audiovisual enhancement covered in the later chapters.

The second theoretical chapter, T-2, takes an autoethnographical lens to Twine, unraveling the complexities of thinking of Twine as a tool for simultaneously making things and challenging culture. Twine

is intensely personal as a platform—the most lasting and powerful stories that have emerged from it are often raw, vulnerable, and passionate. Our connection to it is similarly personal and grounded in both our own histories with the web and hypertext and our communities of practice. We begin by positioning Twine and this relationship, thinking through Twine as a tool and using our own lens to get at the “why” of Twine: Why is Twine significant now, in a media landscape where hypertext has become mundane? In the practical section of chapter two, we dive into variation, examining Twine’s take on the variable and looking across the range of Twine’s capabilities.

The second practical chapter, P-2, addresses the theme of variation on several levels: the potential for variable text within Twine works, the multiplicity of styles available to Twine writers, and the variations of the software itself, ranging across story formats and scripting resources. The examples move beyond simple node-link replacement to explore techniques in which Twine texts can change either between readings or as we read them, in response to random selection or reader choices. This chapter includes two projects using Harlowe, a story format with more robust scripting support.

The third theory chapter, T-3, takes up the (for some) uncomfortable question of how Twine works fit into literary traditions—if at all. It works through commentaries on two Twine works, John McDaid’s *We Knew the Glass Man* (2019) and Porpentine’s *With Those We Love Alive* (2014). The first work looks back in irony toward high modernism, invoking the ghost of Wallace Stevens. The second work lives in a more contemporary world of dark fantasy and the milieu of independent game creation. These works are discussed both as narratives and as technical achievements, with a detailed examination of parts of their code. To understand *With Those We Love Alive* as a game, it is compared to Valve’s classic *Portal* series, another story of mothers, daughters, and dungeons.

Chapter P-3 builds on the concepts of textual variation introduced in the previous practical chapter to explore the idea of text generation: assembling readable content by selecting from a set of components according to some logical procedure. The chapter introduces a primary design pattern, the substitution grammar, which will be used in later

chapters. This chapter moves deeper into programming, considering a more ambitious use of variables in Chapbook as well as the inclusion of JavaScript code, an especially powerful affordance of this story format.

In chapter T-4, we turn our attention from the text to Twine's visual and dynamic aesthetics and the visual play at work in camp works built in Twine. Positioning this play with color, animation, and throw-back web elements in relationship to camp, we consider the rise of Twine as a platform for queer storytelling and resistant play. Through an examination of works that have come to define Twine's influence, we note how the association of Twine with marginalized creators and the poetics of queer storytelling have shaped the platform. Given the dominant heteronormativity and transphobia of the wider games discourse, we note the importance of queer Twine as a point of departure and resistance.

Chapter P-4 explores the "too much"-ness of Twine, with projects exploring ways to add excess through movement, audiovisuals, and external JavaScript libraries such as Kate Compton's powerful procedural grammar, Tracery. In these exercises, we explore the practical side of developing camp Twine and explore the techniques Twine creators have used to break their players' expectations of the medium while incorporating aesthetic playfulness, visual extremes, and novelty.

In the last of the theory chapters, T-5, we bring together the insurgent impulses of camp Twine and the claims of literary legacy by looking at Twine works in a critical moment—both a moment of crisis (inevitably) and an opportunity for critical intervention or decision. The ultimate focus of this chapter is Anna Anthropy's game of apocalypse, *Queers in Love at the End of the World* (2013), which we examine through lenses including queer gaming and game narrative generally, reading it against Davey Wreden's art game *The Beginner's Guide* (2015) as well as other references in various media.

The final practical chapter, P-5, is devoted to projects that move beyond technique to concept. Its series of examples explore various ways stories and games made with Twine can call attention to and investigate their own forms and the nature of stories, games, and language itself. Using Chapbook exclusively, the chapter covers almost no new

technical material but is intended instead to consolidate practical understanding and emphasize the connection between technical exploits and the development of meaning.

Following the last practical chapter is a conclusion that takes up skeptical questions about Twine concerning its aesthetics, its creative community, and its economic basis. Though acknowledging a mixed outlook, especially in the last area, the chapter offers three arguments for the continued development of Twine, based on the “cognitive mapping” of platform capitalism, the contribution of computational creativity to language, and, ultimately, on unabashedly personal investments in a multigenerational project.

Three supplementary sections round out the book: an interview conducted with Chris Klimas during our early research, an interview with Dan Cox, author of the *Twine Cookbook* and other key resources, and a bonus practical chapter that bridges Twine techniques to forms of web coding independent of that platform. While these techniques go beyond Twine, they demonstrate Twine’s role as part of an ecosystem and its educational potential as a path to other web development platforms and approaches.

On a technical note, wherever possible, examples will be updated in the online edition of this work to reflect changing Twine standards. However, obsolescence is inevitable, and in that spirit, we hope to provide both the context and the way of thinking for working with Twine as well as code in the hopes that one of these things will outlive the other. When preservation is no longer viable, this work will serve as a record of the Twine that was and hopefully provide some inspiration for what comes after. The future of Twine will likely be more fragmented than its current iteration—already, different story formats within Twine require different syntaxes and focus on more specialized use cases or ways of thinking about making. Given that, it is important to attend to the specifics of the practical chapters and note the formats each example is coded to use.

As an open-source platform, Twine reflects its creators’ dedication to making a tool that could be used widely and freely. This book is similarly open access, intended as a gift back to the Twine community.

We particularly hope that in the coming years, as Twine continues to serve as a platform for sharing and imagining the future, our words will in some way provide a starting point for new voices.

Finally, we want to express gratitude to a number of people who have helped us finish this project. We thank our editor at Amherst College Press, Beth Bouloukos, and the readers of our first draft, who have made the book substantially better, as well as the technical editorial team from Scribe Inc. for their detailed attention. Noah Wardrip-Fruin of the University of California, Santa Cruz, gave crucial feedback on parts of the manuscript. Colleagues and graduate students at UCF and the University of Wisconsin–Milwaukee have shaped our thinking and tested our code. Dan Cox’s Twine resources and work, as well as his generosity in engaging with drafts and technical errors in this volume, have been invaluable. Any remaining errors are our own. Thank you to all the creative voices reflected here—and particularly to Chris Klimas for Twine itself.

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