

STRUCTURE AND SHAPE: A PRACTICE-AS-
RESEARCH PROJECT ON WRITING A
MULTI-PATH NARRATIVE, INTERACTIVE
PLAYTEXT

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ABSTRACT

This thesis describes a practice as research project which sought to create a multi path narrative output which contained multiple story shapes. It engages with the concept of narrative structure and story shape as discussed in literature on playwrighting and interactive storytelling while citing examples of multi narrative plays. The project resulted in two outputs which were created using Twine, a piece of interactive narrative software. In the thesis, I describe the process of creating the work, citing examples from the outputs, and present how the use of diagrams played an important role in visualising the multi path structure. I reflect on how working with Twine altered my process and describe how my engagement with the concepts of interactivity, interruption and story as functions modified my approach to writing and affected my practice.

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LIST OF ACCOMPANYING MATERIAL

1. An interactive play text called 'Optimisation for Lyfe' created using Twine in the form of an HTML file.
2. An interactive play text called 'Remembering Rebellion' created using Twine in the form of an HTML file.

DECLARATION

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

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CHAPTER 1: INTRODUCTION

When people have asked me, “What kind of plays do you write?”, I have never been able to satisfactorily respond to the question. My work comprises multiple genres including tragicomedy, farce, satire, pantomime, and musicals. Often the first draft of a play might be in one style or genre and the final draft in another entirely. Different versions of a work may treat the same subject and involve the same characters but recount the story from different perspectives and with different emotional journeys for the characters. I was frustrated by having to choose a definitive version for a play which potentially ignored the other forms the piece could take and thus reflected on how to create a single text which might contain multiple different versions which might represent different types of stories using the same basic setting, characters and situation. These reflections formed the background for this practice as research playwriting project which aimed to combine theatrical and interactive storytelling approaches to narrative structure to create an output in the form of an interactive play text.

There is no settled definition of multiperspectivity when describing narrative but it can be defined as ‘an aspect of narration or as a mode of storytelling in which multiple and often discrepant viewpoints are employed for the presentation and evaluation of a story and its storyworld’.¹ Within the works defined as employing multiperspectivity, a subset of media exists in which the narrative presents diverging storylines with a selection process occurring in which a version of the narrative is designated. The term I’m using to describe this type of narrative structure is multi-path narrative as there is more than one pathway through the material with the narrative structure splitting and branching out in different directions. A multipath narrative is thus a structure which allows for multiple stories to co-exist within the same work, forming part of the one text. The flexibility and possibilities provided by the multipath narrative allow for different story *types* to be a part of the same text with each story existing along a different branch in the narrative structure. ‘The central structural movement of these texts is thus branching out rather than closing in; the emphasis is centred on the potential of a situation to generate diverse outcomes.’² It is a practical form which allows the writer to investigate multiple versions of one story with different endings but also multiple forms of story within the same work.

Stories can be categorised in multiple ways including by their plot,³ dramatic shape,⁴ characters,⁵ and genre. Whichever approach is taken, a categorising system specifies the number of potential story categories and how a story might be classified by using a set of criteria. The number of categories varies according to how broadly the categories are drawn and the number of exceptions permitted. For a writing project investigating story type, a system is required so that the story types might be clearly recognisable within the text. The structuralist approaches of narratologists such as Vladimir Propp and Etienne Souriau provide examples of the type of systems that may be devised to not only categorise but also generate stories, with Souriau’s system constructed to generate an almost endless number of story possibilities. In

¹ Marcus Hartner, ‘Multiperspectivity’ in *Handbook of Narratology* ed. By Hühn, Peter, Jan Christoph Meister, John Pier, and Wolf Schmid (2nd edition, Berlin, München, Boston: De Gruyter, 2014), 353–363, p353.

² Felicitas Meifert-Menhard, *Playing The Text, Performing The Future: Future Narratives* (Berlin/Boston: De Gruyter, 2013), p2.

³ Christopher Booker, *The Seven Basic Plots: Why We Tell Stories*, (London: Continuum, 2004).

⁴ Northrop Frye, *The Great Code: The Bible and Literature*, (London: Routledge & Kegan Paul, 1982), p169.

⁵ Vladimir Propp in Genevieve Liveley, *Narratology* (Oxford: Oxford University Press, 2019), p127.

this project, the selection of a cohesive story categorisation process informed both the writing of the output and provided a basis for judging the success of the output. The story categorisation system thus provides a dual purpose, as a framework in which the piece can be written with specific objectives concerning the type of story, as well as a frame to enable an assessment of the final output to establish whether the final output contains recognisable forms of the intended story types.

It is important to distinguish the commonly used terms in this paper of story, narrative, plot and story shape. Paul Cobly defines story as 'all the events to be depicted' and the plot as a 'chain of causation which dictates that these events are somehow linked'.⁶ Karin Kukkonen notes that 'the term has been used in so many contexts that narratologists struggle to define its purview', offering three definitions of plot: as a fixed structure, as progressive structuration and as part of authorial design.⁷ Narrative may be used interchangeably with story or describe the mode of presenting a set of events.⁸ Within the literature discussed in this paper therefore, the terms story, plot and narrative carry a variety of meanings, some of which are analogous. For the purposes of this paper, I will use narrative to describe how the work is presented, principally in relation to the overall structure of the output. Story will describe all of the events presented along a particular pathway with 'story shape' referring to the arc formed by the emotional or dramatic impact of these events.⁹ The definition of plot is the connections between the different events in a story.

Throughout this practice as research project, the driving question was: *how can a multi path narrative structure be used to combine multiple recognisable story shapes into one text?* In answering the question, I interrogate how the process of creating such a text affected my writing process, reflecting on how my understanding of narrative structure evolved throughout the project and on the practical challenges of writing a piece with so many possibilities, outcomes and story shapes.

Methodology

My working process throughout this project has been qualitative which can be defined as '...multimethod in focus, involving an interpretive, naturalistic approach to its subject matter.'¹⁰ The multimethod aspect of this approach allows me to draw from literature on playwrighting, narratology, interactive narrative design and from a variety of media including plays, computer games, interactive documentaries, and interactive theatrical experiences. I recognise the positionality of the work accepting 'that texts, any texts, are always partial and incomplete...and can therefore never represent any truth except those truths that exhibit the same characteristics.'¹¹ The assessment of whether a version of the output conforms to the story shapes or

⁶ Paul Cobley, *Narrative* (London, Routledge, 2001), p5.

⁷ Karin Kukkonen, 'Plot' in *Handbook of Narratology*, ed. By Hühn, Peter, Jan Christoph Meister, John Pier, and Wolf Schmid (2nd edition, Berlin, München, Boston: De Gruyter, 2014), p706.

⁸ "narrative, n.", *OED Online*, (Oxford University Press, 2022), <www.oed.com/view/Entry/125146> [Accessed 5 May 2022].

Cobley, p6.

⁹ See Chapter 4.

¹⁰ Norman K. Denzin, and Yvonna S. Lincoln, *The Sage Handbook of Qualitative Research*. (3rd ed. Thousand Oaks: Sage Publications, 2005), p3.

¹¹ T. Berry et al 'Emerging Criteria for Quality in Qualitative and Interpretive Research' in *The Qualitative Inquiry Reader* ed. By Norman K. Denzin & Yvonna S. Lincoln, (Thousand Oaks, SAGE, 2011), p333.

if the narrative structure is sufficiently complex is ultimately a subjective one, based on my own value judgement which draws on my experience as a playwright. My approach is narrative as I 'produce a contextualized and contiguous interpretation and storied account of the particular situation'.¹² This approach enabled me to work in a manner similar to how I write all of my plays, that is by relying on my instinct and understanding as a dramatist to make choices continuously throughout the process as to how the project should develop without relying on a set plan drawn up in advance.

Writing Tools

In order to fully explore multipath narrative, I used two pieces of software to aid the design of the narrative and the creation of the output. Yed graph editor was used to design the narrative structure and create the diagrams in figures 1 and 4-9 while Twine was used to create the output itself. Twine is presented as a tool for writing non-linear stories on the Twine website,¹³ but it can be used to make any number of different products including games, websites, quizzes, essays and plays.¹⁴ Anastasia Salter and Stuart Moulthrop state that 'Twine is at its heart a system for making passages and links that the user navigates to different ends'.¹⁵¹⁶ The software thus allows the writer to create an almost infinite number of narrative possibilities within the same project that the user can experience with the user's choices influencing the narrative that is presented to them. As the user is involved in choosing the narrative, this implies a level of interactivity in the narrative design of the creative work. I therefore engage with literature from the field of interactive story telling where the multi-path narrative is relatively commonplace being found in computer games, interactive documentaries, and interactive TV shows such as *Bandersnatch*.¹⁷ The use of Twine in the project thus necessitated the addressing of two secondary questions: *how does the level of choice influence interactivity in relation to the different story shapes? Also, how does using Twine as a tool for creating the output affect my writing process?*

There are multiple terms to describe someone interacting with Twine but I shall always refer to anyone interacting with my outputs as a 'user' while acknowledging that when interacting with Twine the 'the dominant mode of reception is that of fused reading and playing'.¹⁸ The term 'audience' will be used to describe anyone interacting with a play or a play text. The questions concerning interactivity are primarily approached from the perspective of the writer as I investigate the creative process. The experience for the user is briefly considered but does not form a significant part of this research project.

¹² Lynn Butler-Kisber, *Qualitative Inquiry: Thematic, Narrative and Arts-Informed Perspectives* (London, Sage, 2017), p8.

¹³ Chris Kilmas et al, 'Twine', *Twinery* <www.twinery.org> [Accessed on 10th December 2021].

¹⁴ Anastasia Salter and Stuart Moulthrop, *Twining: Critical and Creative Approaches to Hypertext Narratives*, (Amherst College Press, 2021), p3.

¹⁵ Salter and Moulthrop, p3.

¹⁶ Passages is the term used to describe the blocks of text and media in Twine. They are analogous to scenes within a play.

¹⁷ Rebecca C. Nee, 'Wild, Stressful, or Stupid: Que Es Bandersnatch? Exploring User Outcomes of Netflix's Interactive Black Mirror Episode.' *Convergence* (London, England, 2021) 27.5, 1488–1506, p1489.

¹⁸ Meifert-Menhard, p8.

As it was only created in 2009, there is not much academic literature on the software, but it has been used to simulate improvisation and in a variety of educational contexts.¹⁹ This thesis will therefore add to this field as a demonstration of how a playwright can integrate Twine into their practice.

Structure of the thesis

I have divided the thesis into sections concerning my approach to narrative structure, playwrighting techniques and story. In my practice, these elements were intertwined with their application occurring simultaneous but in this paper I have presented them separately. In chapter 2, I will describe the structure of the multi-path narrative and the forms the structures can take, especially drawing on the work of Maire Laure Ryan and Carolyn Handler, as well as engaging with the concept of interactivity and the implications that incorporating interactivity into a work has for the writer's control over the narrative of the work. In chapter 3, I will engage with the concepts of interruption and disconnected time to aid understanding of narrative structure. In chapter 4, I will examine literature on playwrighting and narrative to show how story type is used to describe and classify plays and how story can be depicted as shapes. In Chapter 5, I will reflect on how using Twine has affected my practice. Throughout I will demonstrate how these concepts have been incorporated into my work with concrete examples from the two outputs.

Outputs

Although the outputs are specific to this project, the research intends to be of wider use through the application of epistemic methods which intend to uncover insight through my practice. This project means to show playwrights how multi-path narrative can be incorporated into their practice, the potential consequences for their work and a method for using this narrative form as a tool for inquiry into various dramatic forms. This research project illustrates an approach to investigating narrative elements through multipath narrative which writer-researchers can generalise to their own practice. The output of the project consists of two interactive play texts created with Twine. The first output is 'Optimisation for Lyfe', and the second is 'Remembering Rebellion'. Throughout the thesis, I will draw on both outputs to illustrate my practice and evidence my process. Therefore, to understand the approach and following discussion, I would ask the reader to engage with the work before reading the following chapters as this will give a practical understanding of what Twine is and what my outputs are.

To open the work, click on the links below and enter the password 'masters'. Then click on 'Run Book' and follow the instructions contained within.

The first output is 'Optimisation for Lyfe' and can be found here:

<https://chamglas.itch.io/optimisedforlyfe>

¹⁹ Angelica Zadak, 'Spontaneity and the Supernatural: Simulating Improv on Twine', Master's thesis. Nova Southeastern University. <https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1030&context=hcas_etd_all> [Accessed on 18th December 2021]
Veit Maier and Alexandra Budke, 'Developing Geographical Narratives: Pupils Create Digital Text Adventures with Twine', *European Journal Investigating Health Psychology Education*. (2020), 10, p1106–1131.

The second output is 'Remembering Rebellion':

<https://chamglas.itch.io/remembering-rebellion>

In this thesis, I have not intended to provide a comprehensive analysis of the approaches to narrative structure and story presented in the different academic fields but have selected the texts that are of specific relevance to this paper and have influenced my creative process. Throughout, I approach the project as a playwright trying to find practical solutions to the question posed and seek to demonstrate my practice with images and extracts from the outputs. The process relies on visualising the narrative structures and story shapes therefore the diagrams and tables are a key element of the research. The diagrams informed my understanding of narrative and story and were an important step in creating the final outputs. Therefore, I ask the reader to engage with the diagrams to the same degree as the text in assessing this thesis.

CHAPTER 2: THE STRUCTURE OF MULTI PATH NARRATIVES

This chapter examines the importance of structure in creating multi path narrative work, beginning with a discussion of the different levels of structural complexity possible and the importance of using a narrative structure that is suitable for the content. Some of the literature on interactivity in narrative is then considered with a focus on how IDN (Interactive Digital Narrative) scholarship altered my thinking as a playwright and thus influenced my practice. Specifically, the issue of how the level of interactivity impacts the level of control the user has over the narrative is considered.

Although narrative structure may be important to any play, I argue that structure is fundamental when writing multipath narrative work due to the increased level of complexity involved, the number of pathways a user might follow and the negative consequences of poorly structured work. The discussion of my practice contrasts two approaches, one in which I allowed the narrative structure to form organically as I wrote and the other where I explicitly planned the structure as the first step in the creative process. The advantages of setting out the structure early in the writing process are analysed along with the negative consequences of following an inflexible plan.

Multi Path Narrative Structure

A multi-path narrative has a narrative structure in which the narrative splits and there is more than one pathway for a user to follow through the material. The consequence for the user is that they may not experience all the content along their chosen path, while the writer must ensure that every pathway created is understandable to the user. Carolyn Miller sees the structure of a story comprising of small units of material which when assembled create an interconnected whole that functions much like the bones within our bodies.²⁹ 'Structure is the framework of the story. It connects the basic pieces of the narrative and ensures that the work flows in a satisfying way'.³⁰ The structure therefore relates to an ordering of the content rather than the completion of any particular plot or story shape. Structure deals with how the different pathways are connected and how a user may experience them. Marie-Laure Ryan compares story design to construction. 'Textual architecture, in both traditional and interactive narrative, is a building'.³¹ The structure of a multi path narrative is therefore an element which can be planned and designed with the use of diagrams to visualise the design process a useful step in the construction of a narrative structure.

FORMS OF MULTI-PATH NARRATIVE

A common structure is the branching path narrative whereby each time the narrative splits a new pathway is created with the branches often occurring at regular intervals. (See Figure 1). A branching path narrative is 'built around a very rigid structure of decision points and branching paths leading off those points'.³² Carolyn Miller likens this structure to choose your own adventure books and highlights the key problem with this structure, principally 'in a very short time it escalates out of control. After just two forks in the path, with

²⁹ Carolyn Handler Miller, *Digital Storytelling: a Creator's Guide to Interactive Entertainment*, Third edition, (Burlington, MA: Focal Press, 2014), p113.

³⁰ Miller, p113.

³¹ Marie-Laure Ryan, *Avatars of Story* (Minneapolis: Minnesota UP, 2006) p100.

³² Chris Klug and Josiah Lebowitz, *Interactive Storytelling for Video Games: a Player-Centered Approach to Creating Memorable Characters and Stories*, (Focal Press, 2012), p181.

three choices at each, you'd have racked up 13 possible choices, and by the third opportunity for choice, you'd have a total of 39 possible outcomes.³³ Miller emphasises the practical difficulty of writing content for all the different pathways as with each split, the amount of written text needed increases. Equally challenging is maintaining consistency along the pathways to ensure that the stories along each pathway are individually coherent.³⁴

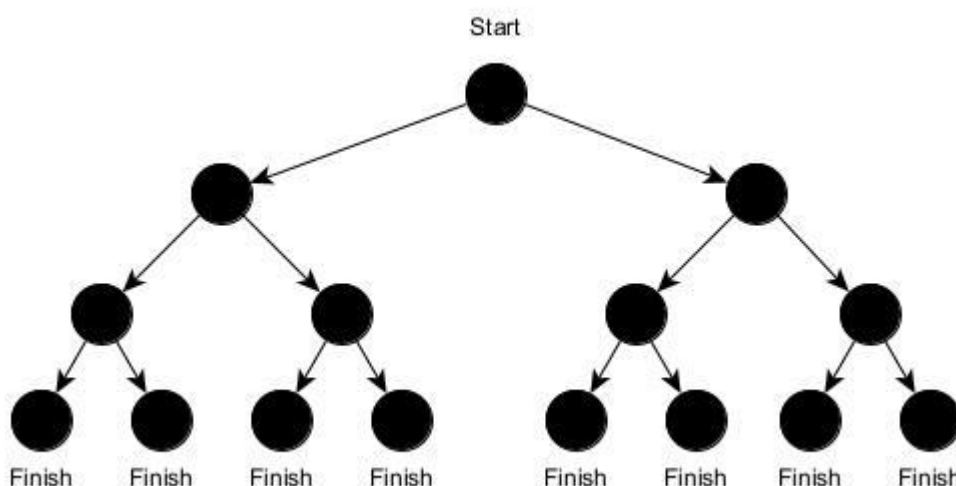


Figure 1: A typical branching path structure.

There are a variety of solutions to this problem, one of which is to limit both the number of pathways at each split in the narrative and the number of splits in total. Alan Ayckbourn's *Intimate Exchanges* employs a branching path structure with 16 separate final scenes (see Figure 2).^{36 37} This branching structure allows Ayckbourn to explore multiple variations of the same story and explore different possible outcomes for his characters. By limiting the number of pathways to 2 at each split in the narrative with only 4 consecutive scenes, this structure creates 16 separate final scenes but to have extended the play to a fifth scene would have created 32 final scenes. If the intention is to create a separate ending for each pathway, the sheer amount of text to write proposes a challenge.

Another solution to the branching path narrative is a concept Miller terms *brushiness* 'which offers a maximum amount of choice but which prevents unlimited branching by having many of the links share communal outcomes'.³⁸ Along with the practical benefit of reducing the amount of content to create, this allows a user to encounter the same scene but from two different narrative directions and thus view the

³³ Miller, p118.

³⁴ Klug and Lebowitz, p184.

³⁶ Alan Ayckbourn, *Intimate Exchanges: a Play* (London; New York: S. French, 1985).

³⁷ *Intimate Exchanges*, Wikipedia,

<https://en.wikipedia.org/wiki/Intimate_Exchanges#/media/File:Intimate_Exchanges_structure3.png> [Accessed on 11th December 2021].

³⁸ Miller, p119.

same material with differing perspectives. This encourages a user to revisit the work and reconsider their initial opinion on the meaning of a particular scene given the knowledge of what may happen afterwards.

Chris Klug and Joshiah Lebowitz define three types of branches in the branching path structure as minor, medium, and major.³⁹ Only the major branches affect the narrative with the other two types of branches adding subplots or contextual information to the main narrative. These definitions are useful in assessing the impact of any branch as they provide a means for the writer to reflect on whether a branch within their work substantially alters the main narrative or whether the new pathway is merely a potentially interesting diversion.

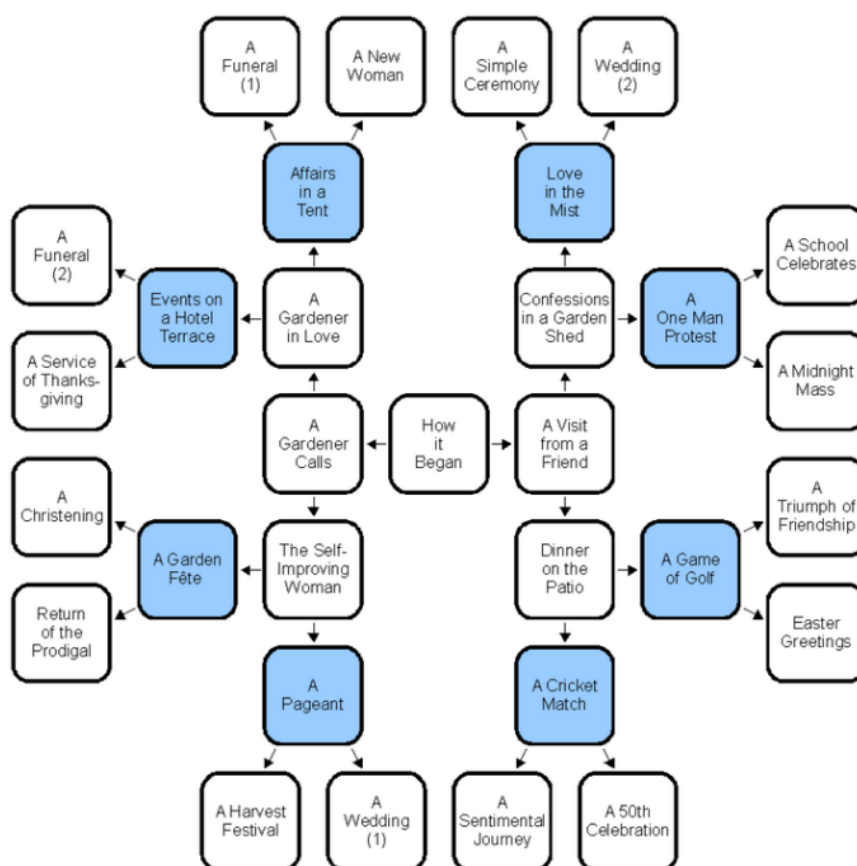


Figure 2: A diagram of the narrative structure of Alan Ayckbourn's *Intimate Exchanges*.

As more branches are added to a multi path narrative structure, the form that the structure takes naturally alters. Whereas the forms in Figures 1 and 2 are regular with a consistent number of branches at each split in the narrative, the number of branches and splits need not follow a pattern. Marie Laure Ryan presents a variety of narrative forms including complex narrative structures such as flowcharts, networks, mazes, and sea anemones (see Figure 3).⁴⁰ For a writer, the essential decision is not over what type of structure to use as models can be combined if it is appropriate to the media and the objective of the work. The fundamental

³⁹ Klug and Lebowitz, p186.

⁴⁰ Marie-Laure Ryan, *Avatars of Story*, p103-104.

aspect to consider is the relationship between the structure and the content as each informs the other. A networked narrative structure may work well with a piece concerning multiple, interacting human relationships but it would not necessarily be the best structure for the biography of a historical figure which presents the information chronologically. A particular structure does not proscribe certain content or vice-versa, but a symbiotic relationship exists between the two which requires consideration in the design of multi path narrative.

REFLECTING NARRATIVE FORM AND CONTENT

A useful approach in ensuring coherence between narrative form and the content is to reflect the narrative form in the content itself,⁴¹ with several plays using quantum mechanics as a metaphor for theatrical elements including narrative structure.⁴² Michael Frayn's *Copenhagen* is 'structured around the interchange between metaphor used to explain science and science itself used as a metaphor to explain action.'⁴³ The play concerns theoretical physicists who analyse the uncertainty principle and complementarity, using it as a metaphor for the unreliability of memory and the impossibility of repetition.⁴⁴ Structurally the play has been represented as three versions of the same unreliable memory,⁴⁵ as an exploration of multiverse theory⁴⁶ and as a post-dramatic text.⁴⁷ David Barnett draws a comparison between the difficulty in defining the position and momentum of particles with 'the instability in the text'⁴⁸ and the fact that the play 'concludes in the same state of indeterminacy from which it started'.⁴⁹ The reflection of the quantum mechanical theories in the narrative structure of the text is thus a vital tool in interpreting the text both by scholars and the audience.

Nick Payne's *Constellations* explicitly integrates multi-verse theory into the structure of the text using an indented line, without further stage direction, to signify a change in the universe.⁵⁰ Liliane Campos highlights the utility of applying such a theory to narrative structure in enabling the playwright to 'replace causal structures by a multiplicity of outcomes.'⁵¹ Payne presents multiple versions of the same eight scenes, making alterations to the characters responses, their actions and the situation. There are five versions of the opening scene in which Marianne tries to convince Roland to lick his elbows, sometimes convincing him to

⁴¹ Hartmut Koenitz, Ferri Gabriele, Diğdem Sezen Mads Haahr and İbrahim Sezen Tonguç, "Introduction" in *Interactive Digital Narrative ed. by Hartmut Koenitz, Ferri Gabriele, Diğdem Sezen Mads Haahr and İbrahim Sezen Tonguç*, (London: Routledge, 2015), p16.

⁴² Victoria Stewart, 'A Theatre of Uncertainties: Science and History in Michael Frayn's 'Copenhagen'', *New Theatre Quarterly*, vol. 15, no. 4, (1999), pp. 301–307, p302.

Solange Ayache, 'Révolution Quantique sur La Scène Britannique : Quelle Place Pour Le Réalisme Dans Le Théâtre Des Possibles ?', *Études Britanniques Contemporaines*, vol. 56, (2019), doi:10.4000/ebc.6625, p2.

⁴³ Stewart, p302.

⁴⁴ David Barnett, 'Reading and Performing Uncertainty: Michael Frayn's Copenhagen and the Postdramatic Theatre', *Theatre Research International*, vol. 30, no. 2 (2005), pp. 139–149, p143.

Stewart, p306

⁴⁵ Eduardo Velasquez, 'Quantum Physics Meets Quantum Ethics: Knowledge, Ignorance, and Socratic Wisdom in Michael Frayn's Copenhagen'. *Perspectives on Political Science*, vol. 35, no. 3, (2006) pp. 149–155, p150.

⁴⁶ Omid Amani and Hossein Pirajmuddin, 'Narrative Quantum Cosmology in Michael Frayn's Copenhagen', *American, British, and Canadian Studies*, vol. 36, no. 1, (2021), pp. 67–86,

⁴⁷ Barnett, p1.

⁴⁸ Barnett, p143.

⁴⁹ Barnett, p144.

⁵⁰ Nick Payne, *Constellations*. (London: Bloomsbury, 2017), p13.

⁵¹ Liliane Campos, 'Quantum Configurations in Nick Payne's Constellations'. *Études Britanniques Contemporaines*, vol. 45, no. 45, (2013), p3.

do so, sometimes being rejected due to Roland having a girlfriend and sometimes succeeding although Roland's wife is nearby.⁵² There is no definitive version of the play, the variations are all equally possible as at no point does the narrative split to prioritise one version over another. 'Rather than a branching plot, Payne presents us with a plotting of infinite possibility.'⁵³ Similarly, Terry Johnson's *Prism* and Florian Zeller's *The Father* mirror narrative structure and content by examining the effects of dementia on the mind of the characters and disrupting the chronology of the events. In *The Father*, as the disease progresses and the central character's grasp on reality decreases, the 'narrative is repeated but fractured' with the audience seeing the same events and conversations played out in multiple ways.⁵⁴ The unreliability of Andre's memory and his ability to link events together as the effects of the dementia increases are represented by the repetition of moments whose connection is unclear. The line 'I'm curious to know how much longer you intend to hang around getting on everybody's tits?' appears in separate scenes in slightly different circumstances but delivered by the same character as if the line is returning to André out of context, at moments unconnected to the original delivery of the line which created the memory.⁵⁵ There are several discussions concerning a chicken dinner which treat its preparation, its eating and its aftermath but it is unclear if the various discussions refer to the same meal with the order of events jumbled or several different meals on different days. Using the narrative structure as a metaphor for dementia provides an impression to the audience of how someone experiencing dementia perceives the world while communicating their disorientation regarding time by presenting scenes which resist any kind of chronologically linear organisation. These plays all employ multiperspectivity in presenting competing and contrasting versions of the narrative but none of them employ multipath narrative as there are no branches, with only one path through the material.

Caroline Horton uses multi path narrative to explore mental illness in *All Of Me (The possibility of future splendour)*, by reflecting 'the years spent on a relentless, incremental journey, the repetitive struggles, the giving up, then the trying again'⁵⁶ in the looping structure of sections of the narrative and the repetitions of the text. In the Twine version of the play, the user regularly comes upon a passage which concerns the abuse of alcohol in which the user repeatedly clicks to reveal more text which equally concerns more alcohol abuse.⁵⁷⁵⁸ The user thus understands the repetitive, circular nature of the alcohol use by repeatedly being forced to interact with the same passage and text, thus inducing a sense of boredom, frustration and hopelessness as another return to this passage in the future seems inevitable. As a user, we sense the mindlessness of the behaviour and the inability of the character to make any progress through are inability to progress through the material. Horton also uses narrative cul-de-sacs to demonstrate the circularity of a struggle with mental illness by presenting choices to the audience which appear to be branches in the

⁵² Payne, *Constellations*, p1.

⁵³ Campos, p9.

⁵⁴ Pamela Das, 'A Relentless Journey: Life with Dementia' . *The Lancet (British Edition)*, vol. 386, no. 10006 (2015), p1813 – 14, p1813.

⁵⁵ Florian Zeller and Christopher Hampton, *The Father*, translated by Christopher Hampton. (London, Bloomsbury, 2017) p136 & p118.

⁵⁶ 'Caroline Horton Tours with All of Me (the possibility of future splendour)', *theatreweekly*, <<https://theatreweekly.com/caroline-horton-tours-with-all-of-me-the-possibility-of-future-splendour/>> [Accessed on 6th May 2022].

⁵⁷ Caroline Horton, 'All of Me', *Itch*, <<https://allofme.itch.io/all-of-me-the-twine>> [Accessed on 6th May 2022].

⁵⁸ In Twine, a passage refers to a section of text and/or media. See Chapter 5.

narrative but ultimately lead back to the same passage and the same choices. In the passage, the user is given a variety of options including going out, looking at a quiz and examining a moon shaped lamp shade. All of these choices move the user on to a new passage but only one directs the user on to another new passage and pathway with the other choices returning the user to the same original passage. It is unlikely a user will immediately select the one action which leads to advancement through the work, therefore the user will probably repeatedly return to the same passage, and the same set of choices, multiple times. The circularity of the character's behaviour and the search for an action which allows an escape from their predicament is thus reflected within the work's narrative structure.

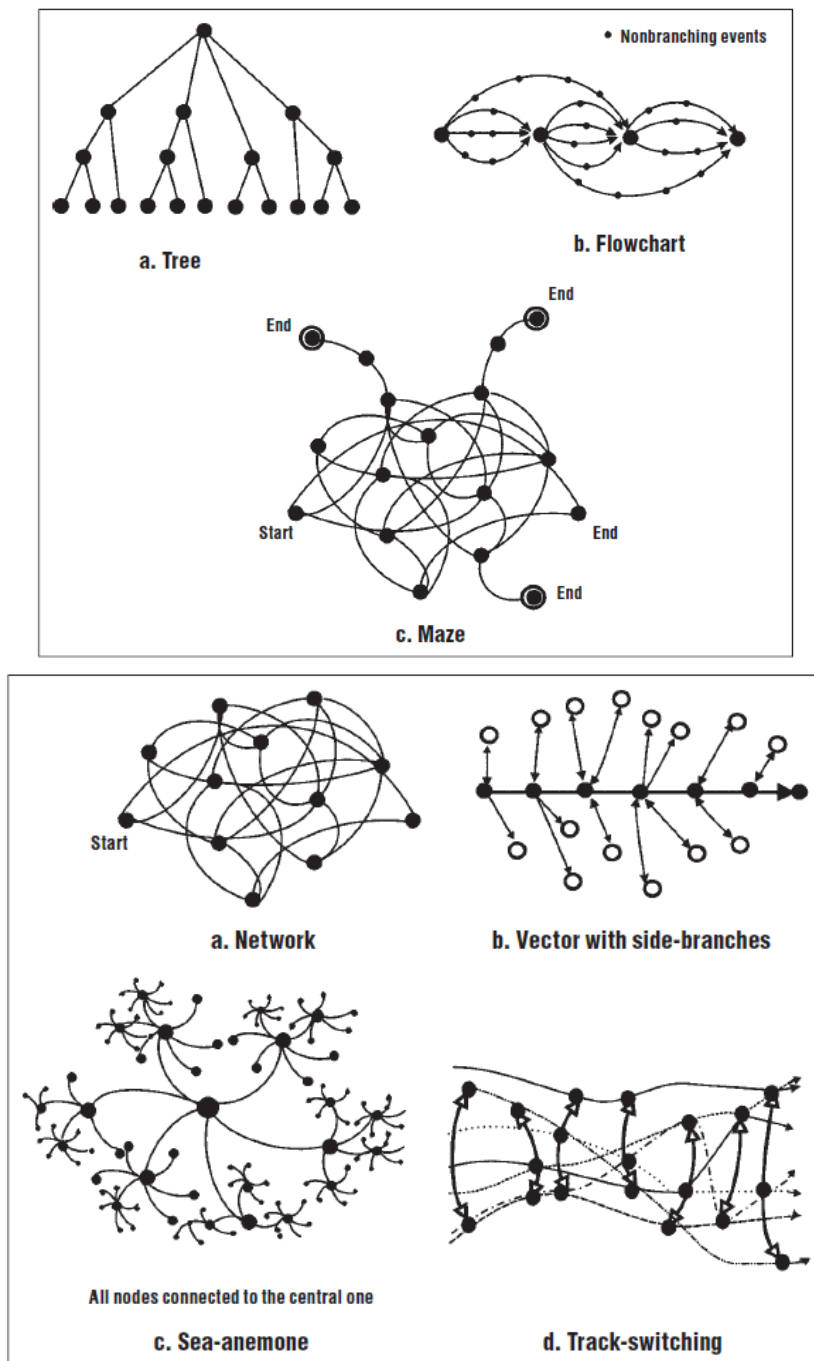


Figure 3: Diagrams of narrative structures proposed by Marie Laure Ryan.

Interactive Narrative

In a multi-path narrative, as the number of branches increase, so do the number of pathways available to the user. The decision for which pathway is followed may be taken randomly, as in Alan Ayckbourn's *Roundelay*⁵⁹, or it may be decided by the user. If the user is influencing the narrative, it may be described as an interactive narrative which is 'broadly understood to mean narrative experiences that change through the player's interaction'.⁶¹ As the user interacts with the work, they become integrated into the narrative system. The level to which the user can influence the narrative through their choices dictates the work's overall level of interactivity.⁶²

THE USER AS PART OF A NARRATIVE SYSTEM

Brenda Laurel described the 'Action' of a creative work in human-computer activity as being 'collaboratively shaped by system and user'.⁶³ It is not simply the action of a story as described in the text but the action of the user that combines with the story to create the overall action of the work. The narrative is thus formed through the 'convergence of bottom-up input and top-down design to produce well-formed narrative patterns'.⁶⁴ The process of forming an interactive narrative may be split into three parts. Jannidis Fotis describes interactive narrative as the organisation of event-sequences with three types of events: user activity, mechanics, and plot.⁶⁵ The plot as written on the page is transformed by the mechanics of the system by which it is delivered before being further altered by the user activity. When the three events operate together the final narrative meaning of the work is formed. In this construction, the plot is created by the writer who should be aware of the mechanics of the delivery method, be that through Twine or another video game interface. To write the plot in isolation, without considering its transmission to the user, risks any intended meaning becoming distorted by the mechanic sequence. The user activity, through interaction with the interface, will also contribute to final narrative meaning as experienced by the user. Therefore, the writer can only influence, rather than control, the ultimate narrative perceived by the user. The writer designs a plot which accounts for the other two event-sequences but is not an omnipotent actor in the process. Hamuts Koenitz prefers to depict interactive narrative formation as *system, process, product*. The system describes 'the combination of software and hardware on which the software is executed', the process 'is defined by the opportunities the system provides and shaped by the user's actions and the product is the result of the interaction of these two'.⁶⁶ The writer dictates the choice of the system and can shape the process according to the options provided by the system, but the final product is only created in

⁵⁹ Simon Murgatroyd, 'Roundelay: Synopsis', *Alanayckbourn*, <<http://roundelay.alanayckbourn.net/>>, [Accessed 27 December 2021].

⁶¹ Nic Velissaris and Jessica Rivera-Villicana, "Towards Intelligent Interactive Theatre: Drama Management as a Way of Handling Performance" in *Interactive Storytelling*, (Cham: Springer International, 2019) p233-38, pp234.

⁶² Ryan, *Avatars of Story*, p100.

⁶³ Brenda Laurel, *Computers as Theatre*, (Reading, Mass.: Addison-Wesley Pub, 1993) p49.

⁶⁴ Marie-Laure Ryan, *Avatars of Story* (Minneapolis: Minnesota UP, 2006), p100.

⁶⁵ Fotis Jannidis, "Event-Sequences, Plots and Narration in Computer Games." *The Aesthetics of Net Literature. Vol. 16.* (Bielefeld: Transcript Verlag, 2015), p281-306, p291.

⁶⁶ Hartmut Koenitz, "Towards a Specific Theory of Interactive Digital Narrative", in *Interactive Digital Narrative ed. by Hartmut Koenitz, Ferri Gabriele, Diğdem Sezen Mads Haahr and İbrahim Sezen Tonguç*, (London: Routledge, 2015.), p98.

concert with the user. The product can therefore be managed by the writer through the system and process but cannot be defined as it requires input from the user to be created. Koentiz's conception highlights the relevance of the tools used to create the output as the options presented to the user are formed through the combination of the writer input and the possibilities of the system. Although the writer may conceive of themselves as the sole author of the narrative, in practice the writer is working within a system. The choices for the writer are thus bounded by what is possible and practicable with the system moulding the decisions of the writer throughout the creative process.

As a playwright I had never explicitly considered the idea that the writer is forming the narrative with the user and that the user's interaction may take different forms. Interactive documentaries and interactive storytelling websites integrate visuals, music, and text into the narrative choices for the user.⁶⁷ In *A short history of the Highrise*, much of the information is contained within links which don't form part of the main narrative, the user is free to choose how much detail is presented on the different topics covered.⁶⁹ At other times the user is forced to intervene to reveal a section or decide on a pathway through the material. This mixing of media provides various forms through which different types of branches in the narrative can be integrated into the output.

THE LEVEL OF CHOICE

The level of narrative choice poses a particular problem as this effects the level of interactivity. A work without a reasonable level of choice, may be considered as non-interactive but by introducing narrative choice to a work, a writer risks losing control of the overall narrative.⁷⁰ If the writer seeks to deliver a message or tell a particular story with a particular order of events, then they may need to control the narrative in order to deliver their message.⁷¹ As agency over the narrative granted to the user increases, the writer progressively relinquishes control of the potential narrative meaning of the work as the user may make choices that reduce the impact of the writer's message or the level of narrative satisfaction the work is capable of producing. The more choice and interactivity that is present in a work, the greater the risk the user alters the narrative in ways which are detrimental to the functioning of the narrative, or at least to how the writer thinks the narrative should function. This issue has been termed the 'interactive paradox'.⁷² Marie-Laure Ryan highlights, 'There is no solution to the paradox but only acceptable compromises: either restrict the freedom of the user in order to create a coherent narrative; or expand the freedom of the user and sacrifice narrative form'.⁷³ When writing a multiple path work, the writer is obliged to consider the level of

⁶⁷ Katerina Cizek, 'Universe Within', *nfb*, <<http://universewithin.nfb.ca/desktop.html#index>> [Accessed on 5th December 2021].

Khaled Hosseini, Adeel Akhtar, Liz Edwards, Francesca Panetta, Nicole Jackson, Shehani Fernando, Mona Mahmood, Anrick Bregman, Andrew Mason, Anetta Jones, Lisa Golden, Peregrine Andrews, So When, Kronos Quartet and UNHCR, 'Sea Prayer', *The Guardian*, <<https://www.theguardian.com/world/2017/sep/01/sea-prayer-a-360-story-inspired-by-refugee-alan-kurdi-khaled-hosseini>> [Accessed on 7th December 2021].

Nam Le & Matt Huynh, 'The Boat', *sbs*, <<https://www.sbs.com.au/theboat/>> [Accessed on 7th December 2021].

⁶⁹ Katerina Cizek, 'High Rise', *Nytimes*, <<https://www.nytimes.com/projects/2013/high-rise/index.html>> [Accessed on 12th December 2021].

⁷⁰ Chris Crawford in Marie-Laure Ryan, *Avatars of Story*, p199.

⁷¹ Adegboyega Ojo & Bahareh Heravi, "Patterns in Award Winning Data Storytelling", *Digital Journalism*, 6:6, (2018) p693-718, p697.

⁷² Ruth Aylett and Sandy Louchard in Marie Laure Ryan, "Narrative in Virtual Reality? Anatomy of a Dream Reborn", *Facta Ficta Journal of Narrative, Theory & Media*, vol 2, (2018), 91-111, p94.

⁷³ Ryan, "Narrative in Virtual Reality? Anatomy of a Dream Reborn", p94.

choice and thus interactivity that is introduced by the branches in the narrative while balancing the consequences this has for the level of narrative cohesion of the work overall.

Applying Multi-path Narrative Structure and Interactivity

OPTIMISATION FOR LYFE

When creating the first output, the multi-path structure of the narrative was not the primary focus of the work. Instead, I prioritised writing and combing different story shapes into one narrative, a topic I discuss in more detail in chapter 4. Therefore, I didn't plan and design the multi-path structure in advance but allowed it to form organically as I progressed. If I considered that the story required an extra scene or if I wished to include a particular concept, I added a scene to the work without fully considering the effect on the overall narrative structure of the work. The resulting structure of the scenes can be seen in Figure 4.

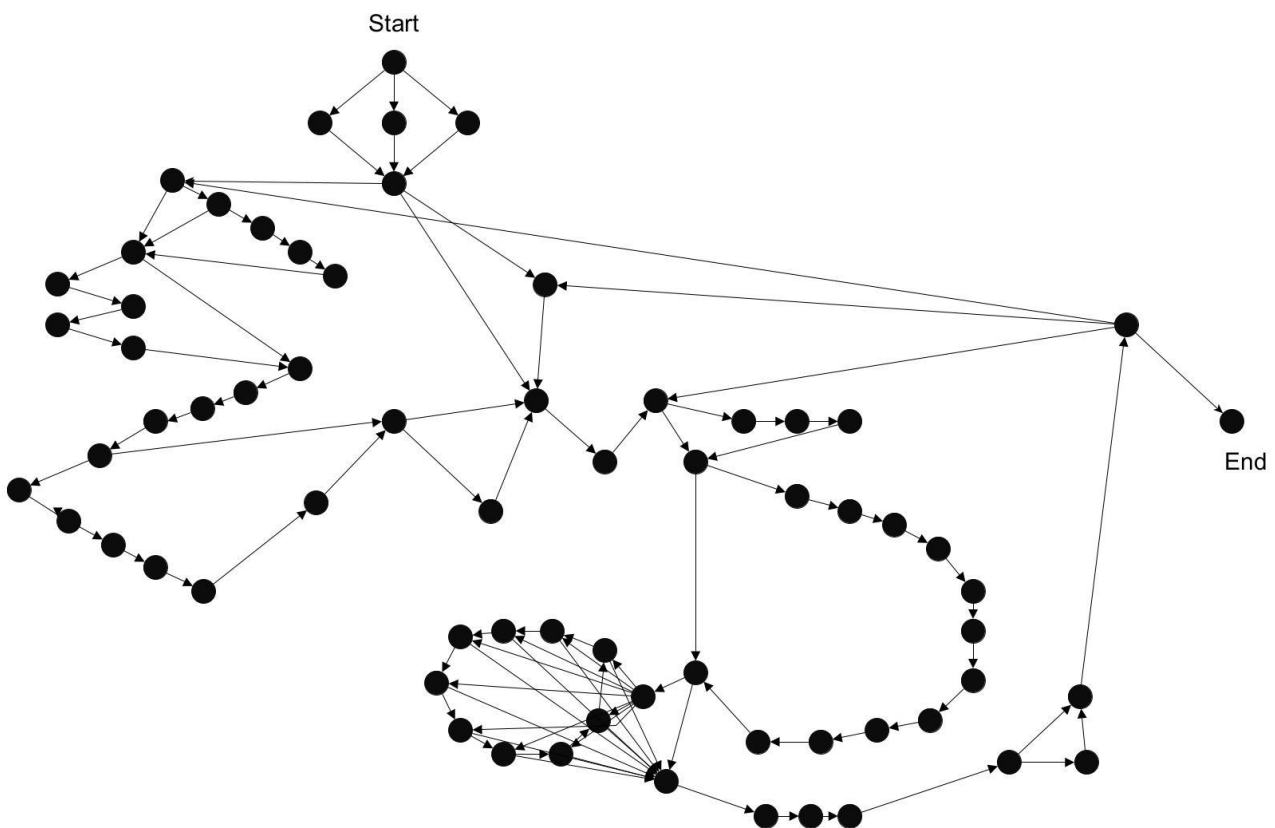


Figure 4: A diagram showing the narrative structure of the first output, *Optimisation for Lyfe*.

Although the narrative structure of the work may appear complex, there are only a small number of major branches that influence the main narrative. At the start of the output, the narrative splits briefly into three branches.

The choice made by the user at this point is the only decision that influences the main narrative as experienced by the user as it decides the type of story that the user will engage with. All the other branches within the work would be classed as moderate or minor by Klug and Lebowitz as these branches do not affect the main narrative for the user but lead to alternatives or repetitions of certain passages. Although these branches add detail and explain events which might be referenced elsewhere in the work, it is not essential for the user to experience these branches to follow and understand the main narrative. The resulting level of interactivity of the work is therefore low as there is very little choice for the user which has a substantive impact on the main narrative (see Figure 5.).

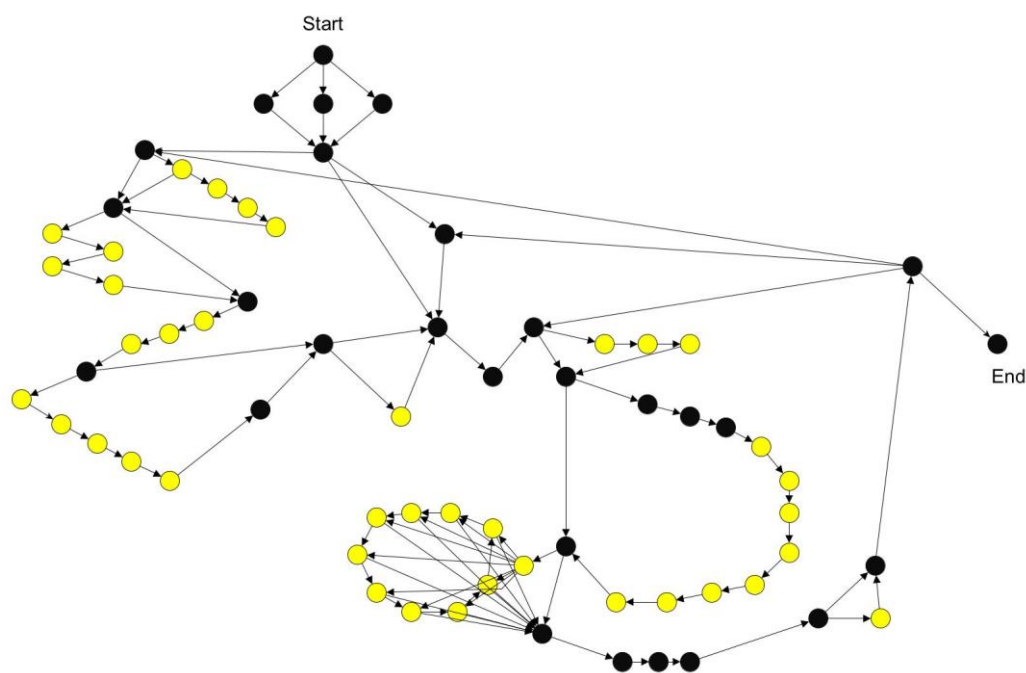


Figure 5: A diagram showing the narrative structure of *Optimisation for Lyfe* with the major branches in black and moderate and minor branches in yellow.

Having reflected on the low number of major branches in this output, I realised that the lack of a planned structure for a work was a major cause of the limited level of interactivity. Marie Laure Ryan highlights that writing for non-linear media requires foresight and planning due to the disruptive nature that the hypertext form has on how stories can be communicated.⁷⁴ Therefore the approach of the writer should be top-down, imposing a structure on the content as a primary objective before other elements can be considered. I accepted it might be more effective to design the structure of the work with the choices set out before writing any of the content for the passages themselves, perhaps even before any reflection on the type of

⁷⁴ Marie-Laure Ryan, *Narrative as Virtual Reality* (Baltimore: Johns Hopkins UP, 2003), p245.

story being represented. The content could then be written specifically to fit the multi-path narrative structure designed thus guaranteeing a higher level of choice and thus interactivity.

REMEMBERING REBELLION

In my second output, *Remembering Rebellion*, I began by designing a branching path structure with each branching passage containing a split with 3 branches for a user to choose from.⁷⁵ The structure was inspired by combination of a flowchart and a tree diagram (see Figure 3). As previously discussed, multiple branches can quickly lead to a challengingly large number of scenes, therefore I applied 'brushiness' by intersecting the pathways with each other. In Figure 6, the passages in the right column can be arrived at from any of the scenes in the column on the left. The result being that in this first section of the output, there are only 10 scenes but there are 27 individual pathways through the material providing a reasonable amount of choice and thus narrative interactivity from relatively few passages.

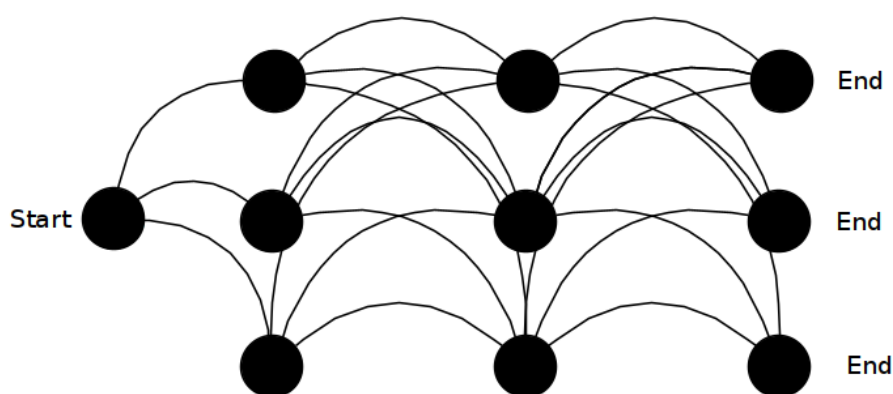


Figure 6: A diagram of the narrative structure of the first section of *Remembering Rebellion*.

All the branches in this output can be considered as major as they all have the potential to affect the main narrative. Although the pathways intersect, meaning that each scene appears in at least 9 pathways overall, for the user there is a clear impact on their narrative experience caused by their choices. There is a significant increase in agency granted to the user compared to *Optimisation for Lyfe* and equally an increase in interactivity through narrative choice, but ultimately, I maintained a substantial degree of control over the narrative. For Klug and Lebowitz, the branching path structure lies in the middle of their scale of interactive narratives as the writer is creating the pathways for the user to follow rather than granting the user total freedom to explore the material exactly as the user desires.⁷⁶ As I designed each pathway through the material, dictating the order of when certain passages appear and did not provide the option for the user to go back through the output and try a different scene, the level of interaction was limited to my set pathways. The user was unable to deviate to a narrative I had not explicitly constructed and planned. As a writer, I was able to ensure that each user would experience a pathway which resembled a defined story type, one which I had designed. Granting more control to the user risked them interacting with the output and potentially creating a story with no recognisable shape. Such a result, although potentially interesting,

⁷⁵ The reasoning for using 3 branches is discussed in chapter 4.

⁷⁶ Klug and Lebowitz, p181

would lie outside of the scope of this project. Only by maintaining narrative authority over the pathways taken could I ensure that a user experience would resemble a specific story type as planned.

The 10-scene structure in Figure 6 was only the first section of the entire output. Two more sections were added which built on and repeated the initial structure, with 9 possible first passages in the second section and 27 in the third section. For the user, the experience in each section is relatively similar as there are always 3 passages where the narrative splits along 3 branches, the intention being that the user experiences a similar story 3 times with slight variations on the original pathway with each repetition. Although the experience for the user remains consistent from section to section, the overall narrative structure of the output is more complex (see Figure 7), with the number of choices also increasing resulting in a total of 19,683 pathways for a user to potentially follow.

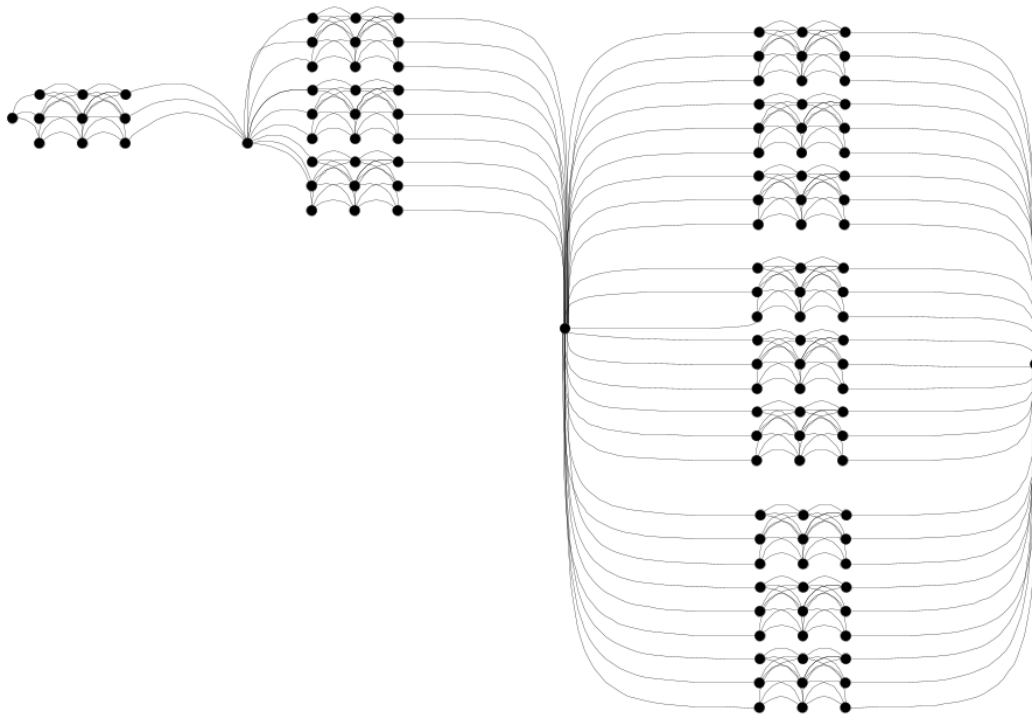


Figure 7: A diagram of the narrative structure of all 3 sections of *Remembering Rebellion*.

REFLECTING ON THE STRUCTURE OF THE OUTPUTS

In my previous non-multipath narrative work as a writer, structure referred to the ordering of events in a single story with the decisions restricted to, for example, where in the action of the piece should a character perform a specific act. When working on these multipath narrative outputs, although the word structure could still refer to the ordering of action along a particular pathway, it also referred to the number of pathways available and how a user might navigate the material. As the number of options available to the user expanded, my understanding of the term *narrative structure* also needed to expand to encompass multiple pathways contained within one work and the narrative possibilities this offers.

The process of designing these narrative structures showed that planning the structure in advance of writing the content is conducive to producing outputs with higher levels of choice and interactivity. However, by prioritising the structure of the work and creating the work through diagrams, my role as a writer altered as I focussed on designing rather than writing text. The process of writing the text also changed as the written content of the second and third sections was dependent on the decisions taken in the design stage of the work. In *Remembering Rebellion*, the method for creating the content in the second and third sections was to cut and shape the text from the first section to create shorter variants of the originals. Therefore, once the original text for the first section had been written, creating the content for the other two sections became repetitive with much of the creativity associated with my usual writing absent. I methodically analysed the text of a scene, removed less important words and phrases, before attaching it to the text of another scene. As I followed the set narrative structure, my writing process became systematic, almost robotic as I applied this simple method to create the content. As I repeated the process, reducing a text before placing it correctly in a new position, my writing began to serve the narrative system rather than the other way around. There were no real decisions to be made as all the decisions had been taken in the design phase. My task was to execute the function of the writer within the narrative system I had created. This was an unexpected consequence and highlights the importance of correctly planning and designing the narrative structure to allow for the lack of creative freedom that may be experienced by the writer in the latter stages of the process.

CONCLUSION

A multipath narrative structure can be as simple or complex as is desired ranging from a branching path with one split to a large network with multiple trees, mazes or sea-anemones contained within. The importance of the branches can be assessed by the impact each branch has over the main narrative, but it is important to consider the level of choice and the type of interactivity expected from the user before writing the material. In gauging the level of interactivity to include, it is useful to understand how the narrative is formed between the author and user with the technology and its specific operating mechanics acting as a conduit between these two agents. The issue of the amount of control to grant the user over the narrative was somewhat resolved in my output by the necessity to include specific, recognisable story shapes. By failing to plan a structure in advance, the writer risks creating structurally simplistic work with a low level of choice as occurred with *Optimisation for Lyfe*. Structurally complex piece allows the exploration of different story types, providing more possibilities and options, as shown by *Remembering Rebellion*. Although a high level of interactivity was not necessarily an initial aim of the project, by increasing the level of choice, I equally increased the capacity of the work to investigate the primary question of how to integrate multiple story shapes into the one text. There are consequences in planning a structure in advance as there is necessarily less freedom to adapt the work during the writing process, with no obvious solution to this problem existing other than to continually move back and forth between content and structure, allowing each to mutually inform the other in a constant process of writing, assessment, and adaptation.

CHAPTER 3: PLAYWRIGHTING TECHNIQUES IN MULTI-PATH NARRATIVE

In this chapter I will engage with how two playwriting concepts, *Disturbed Time* and *Interruption*, were employed in my two outputs and affected my writing process. In *Optimisation for Lyfe*, I employed both techniques in what I term a 'reset' scene which intended to formally close the narrative path being followed so that the user may begin another pathway. In *Remembering Rebellion*, a 'reset' scene was employed to interrupt the narrative but without *disturbed time* in order to maintain a higher level of narrative coherence throughout the work. The intention was to allow the user to make connections more easily between the three different versions of the story although the successful use of either of the techniques in either of the outputs is questionable.

Time and Disrupted Time

In a multi-path narrative, the dramatic unities of time and place are not tied together as they are in the real world. A branch in the narrative creates a new pathway with a new version of time along that pathway. Although a user may only experience one pathway along which the action may unfold chronologically as it does in real life,, the play as a whole is using a multiple-path version of time with multiple versions or realities existing simultaneously. The knowledge that these other versions of the work exist is already disruptive to everyday notions of space and time being bound together. For David Edgar, a multi-path narrative would be described as *disconnected time* whose 'plays have developed a vocabulary of seemingly mundane, often arbitrary connectivity, as a kind of taunting of more conventional, cause-and-effect storytelling.'⁷⁸ Edgar's dismissal of plays that employ disconnected time is due to his seeing them as subversions of more conventional, linear narrative forms, where events are presented in the order in which they have occurred, that have come to dominate theatre, television and cinema.⁷⁹ For Edgar, disconnected time plays are defined in opposition to more common linear structures are mainly noteworthy for resisting the preference for unambiguous plots.⁸⁰ Robert McKee takes a similar position in defining multi-narrative work as 'anti-structure' or 'anti-plot', again creating an unnecessary dichotomy between linear narrative and everything else.⁸¹ The idea that a multi-path narrative is somehow opposed to structure is questionable as work of this type often requires a high level of structural complexity to operate as is demonstrated in chapter 2. Instead, a broader definition of narrative structure may be useful, one which encompasses multi-path narrative and acknowledges the possibility that the existence of multiple pathways does not preclude the presence of a plot or plots.

Steven Jeffreys highlights that even in real life, although time is linearly advancing, 'we don't necessarily experience time like that. In any given day, you will have flashbacks to various parts of your life;

⁷⁸ David Edgar, *How Plays Work*, (London: Nick Hern Books, 2009), p157.

⁷⁹ Edgar, p158.

⁸⁰ Note that linear narrative refers to the order of events in the story mirroring the order in which they are presented whereas non-linear disrupts this relationship by altering the sequence in which events are presented. A non-linear narrative may still possess a strong plot if the events are sufficiently clearly connected but these connections might be less obvious than if the events are presented linearly.

⁸¹ Robert McKee, *Story: Substance, Structure, Style, and the Principles of Screenwriting* (New York: Regan, 1997), p30-46.

your experience of time is disrupted.⁸² *Disrupted time* is the term Jeffreys uses to describe plays which are not set in a specific temporal moment allowing for the exploration of universal themes without focussing the discussion in a specific time or place. Jeffreys uses Carol Churchill's *Top Girls* as an example of a play employing disrupted time owing to the first scene involving a conversation between famous historical female figures, who could never have met in real life owing to them being alive in different centuries.⁸³ This scene takes place at an unspecified time and place, it is outside the realm of the real world. In *Top Girls*, this allows the comparison of the place of women in society across multiple moments in history including the present.⁸⁴ Debbie Tucker Green often separates the Aristotelean unities of place and time employing disrupted time in *generations* where the same scene is repeated five times but the conversations occurring within are taking place in different time zones.⁸⁵ Conversations linked by subject or theme are played simultaneously onstage, enabling for comparison and contrast, although the conversations took place at different moments within the world of the play.

Disrupted time can also be used to distinguish different parts of a play and thus enable comparison between the sections. Using disrupted time may create a section of play which exists outside of the time frame of the main narrative enabling the audience to reflect on the action from a more objective position. In Michael Frayn's *Copenhagen*,⁸⁶ the play opens in an indeterminate space and time as the characters are all dead, are in an unspecified location and 'move freely back and forward in time, commenting retrospectively on past actions'.⁸⁷ David Barnett describes the play as a 'collapsing of time levels', highlighting how the characters repeatedly jump in and out of memories from different periods, undermining 'any sense of uniformity in the time level'.⁸⁸ The play constantly moves between one place in which the characters reflect and interpret the past, and another in which they replay past event to aid their understanding of what occurred between them. The use of disrupted time allows for the past to be reinterpreted in a dynamic form without needing to establish a definitive version or a singular explanation of its meaning.

Interruption of the Narrative

When engaging with multi-narrative work, an audience or reader will often be made explicitly aware of the narrative and how it is being manipulated by the writer. Stephen Jeffreys uses the term *interruption* to describe the technique of stopping and restarting the narrative mid-play. 'Interruption depends on a self-conscious awareness of the narrative: an awareness of the storyteller telling the story and deliberately spoiling it at some point'.⁸⁹ Spoiling is perhaps too pejorative a term as the intention may be to contrast one version of the events with another similar version of the events. Jeffreys highlights the awareness of

⁸² Stephen Jeffreys, *Playwriting: Structure, Character, How and What to Write*, ed. by Maeve McKeown (London: Nick Hern, 2019), p57.

⁸³ Jeffreys, p59.

⁸⁴ Alicia Tyler, *Caryl Churchill's Top Girls*, (London: Continuum, 2008), p25.

⁸⁵ Lucy Tyler, 'Almost, but Not Quite': Reading Debbie Tucker Green's Dramaturgy inside British Playwriting Studies in *Debbie Tucker Green: Critical Perspectives*, ed. by Siân Adiseshiah, and Jacqueline Bolton, (Springer International Publishing AG, 2020), p133.

⁸⁶ Michael Frayn. *Copenhagen*, (London: Bloomsbury, 2014).

⁸⁷ Stewart, p303.

⁸⁸ Barnett, p141 & 142.

⁸⁹ Jeffreys, p50.

narrative that is produced in an audience by restarting the story and replaying the same events as Steven Sondheim does in *Into the Woods* and Samuel Beckett in *Waiting for Godot*.⁹⁰ By repeating the action, the dialogue and the setting, Beckett is highlighting the play's narrative structure, marking it out as different to work with one continuous narrative.⁹³ By employing interruption, Beckett draws attention to the repetitive nature of the narrative structure, hinting at the stasis in the characters' lives and the futility of attempting to alter their behaviour.

In Nick Payne's *Constellations*, the narrative is repeatedly interrupted and restarted to show alternative variation of the same event.⁹⁴ The interruptions are persistent, occurring multiple times in each scene, destabilising any sense of veracity in the events taking place to create a 'foggy' or 'muddled' impression with multiple meanings.⁹⁵⁹⁶ By repeatedly interrupting the narrative, Payne draws attention to the structure encouraging the audience to consider why the writer is presenting the narrative in this staccato form. Similarly in *Copenhagen*, the meeting between Bohr and Heisenberg is replayed several times over with repeated references to the same activities of walking, talking and skiing, to highlight the artifice of the narrative content and draw attention to the narrative form.

Applying Disrupted Time and Interruption

OPTIMISATION FOR LYFE

In the first output, I employed both interruption and disrupted time by creating, what I term, a 'reset' scene (see Figure 8). This scene employed disrupted time, as the events take place in a non-specific time frame which juxtaposes with the time frame in the other scenes in the output. The user arrives at the reset scene after finishing a pathway with a relatively clear plot. From this reset scene, the user then returns to the beginning of the same pathway they have already experienced and follow a shortened version of that pathway. The intention was for the user to become conscious of the story being interrupted each time they came upon the 'reset' scene, with the disrupted time used in this reset scene providing a clear contrast with the time frame and the causality of the events which occur along their pathway. With repetition of this looping narrative form, the user might become less engaged with the story from their pathway as the events no longer surprise them. The intention was to distance the user from the characters and story, and become more aware of the narrative structure of the work as a whole, allowing them to objectively consider the story shape and how it is constructed.

⁹⁰ Samuel Beckett, *Waiting for Godot: A Tragicomedy in Two Acts*, (London: Faber and Faber, 1959).

⁹³ James L Roberts, *Samuel Beckett's: Waiting for Godot & Other Plays* (New York, New York: Hungry Minds, Inc., 1980), p45.

⁹⁴ Nick Payne, *Constellations* (London : Bloomsbury, 2017).

⁹⁵ Ayauche, p28.

⁹⁶ Campos, p4.

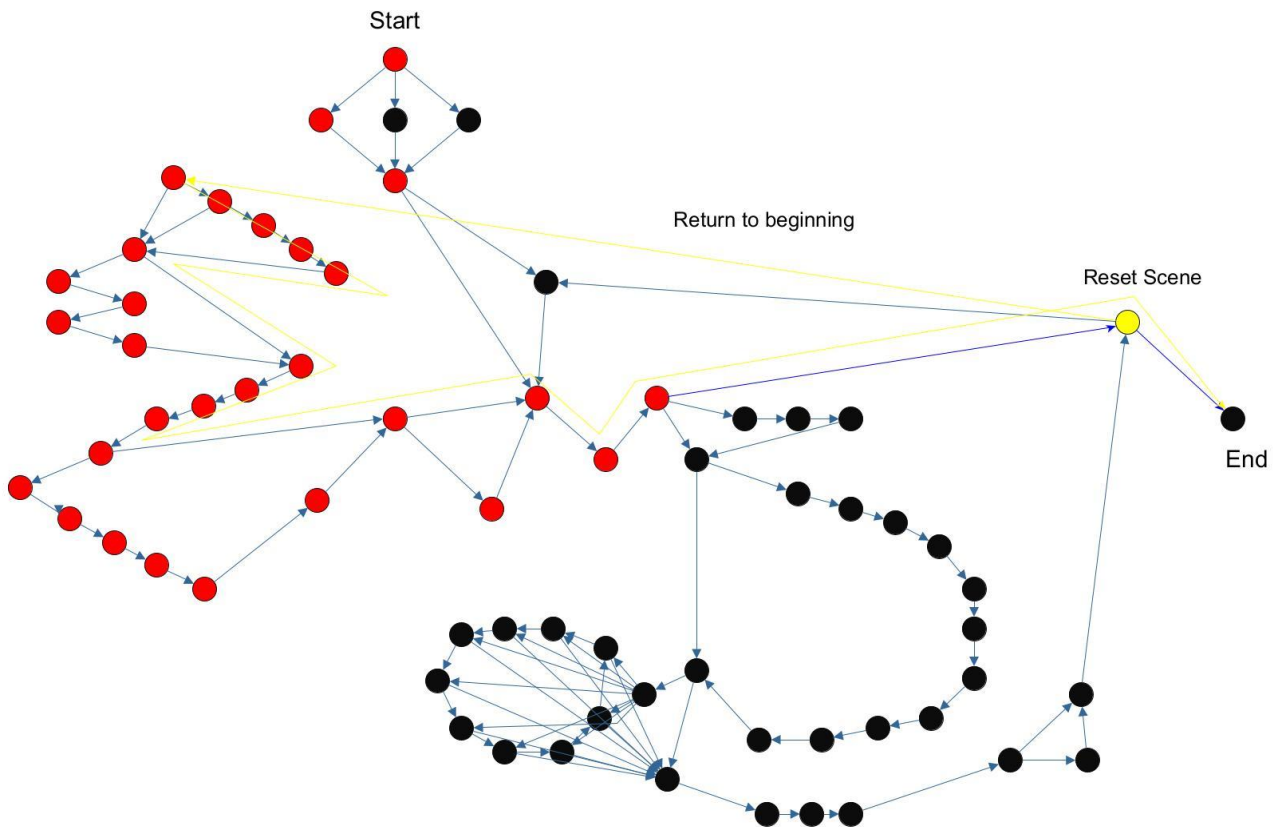


Figure 8: Diagram of the narrative structure of *Optimisation for Lyfe* showing the Rags to Riches narrative in red and the 'reset' scene in yellow. The yellow line represents the route the user follows when experiencing the narrative for the second time.

However, I found that the reset scene did not function as intended. The interruption effect was difficult to perceive as the stories recounted along the three pathways had neither clear plots nor story shapes. The aim was for the reset scene to perhaps surprise the user by clearly contrasting with the story of their chosen pathway. However, none of the three pathways contained a sufficiently well-defined story with recognisable characters and actions for this interruption effect to be perceivable. The use of disrupted time in the 'reset' scene did not contrast clearly enough with the timeframe used along any of the three pathways. Although the passages occurred chronologically, the characters regularly refer to and re-enact past events, before moving back into conversing in the present. By employing non-linear stories along the pathways, the contrast of passing to disrupted time in the reset scene was significantly lessened.

REMEMBERING REBELLION

In *'Remembering Rebellion'*, I again attempted to employ interruption by using a 'reset' scene. As a key problem with the first output was the lack of clear narrative along the pathways, I presented a story that was easier to follow which recounted the events of a protest which took place over the course of one day. The story is told chronologically, with a clear beginning in which the characters meet in the morning and a defined end in which the characters return home at night. In the 'reset' scene, the characters explicitly reference the fact the events along the story pathways are being remembered from a different time and place than the stories along the pathways. This might enable the user to clearly distinguish between the stories on the pathways and the reset scene which takes place at a different time and place.

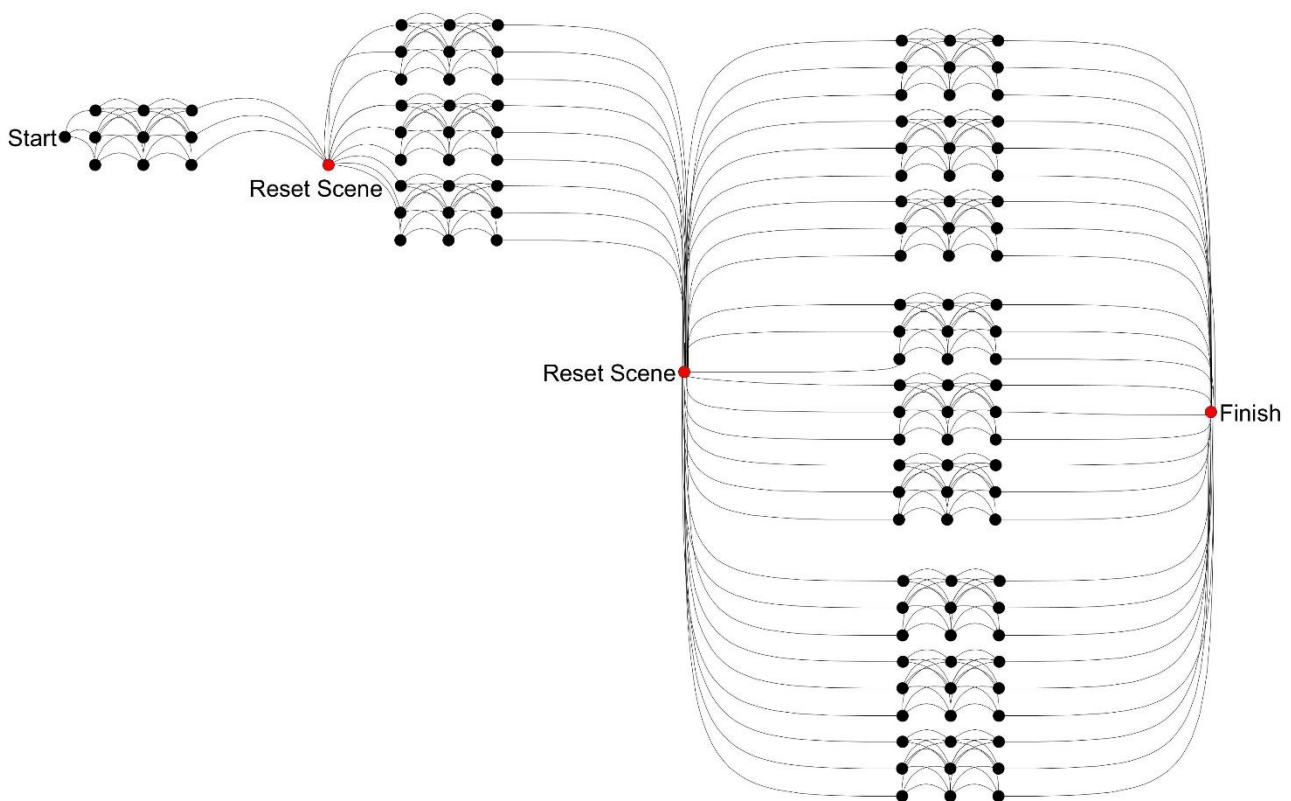


Figure 9: Diagram of the narrative structure of *Remembering Rebellion* showing the 'reset' scenes.

Once the story from the first section is interrupted by the reset scene, the user is then directed to the second section. As described in chapter 2, this second section is very similar to the first section, the characters and situation are both identical, the difference between the two sections being a slight change in the events that occur and a reduction in the length of the text overall. For the third section, this process is repeated with the text again reducing in length and further modification to the events take place according to the decisions of the user. The user therefore experiences a similar story about a protest three times, each one interrupted by the reset scene with the intention being to draw the user's attention to the structure of each story and to the narrative structure of the output as a whole

By repeating the same story in the subsequent sections, the user might be able to alter the story, sending it in a different direction with each repetition. The user may be able to observe the evolution of this story as it is repeated several times, with details being added by the characters. This format is supposed to mimic how a story can change and evolve over time especially when told by a group as each person remembers the story differently. The form intends to highlight the idea that a story can be retold in many ways and may be remembered differently by different people depending on their perspective.

Despite the intention to interrupt a story with this reset scene, in *Remembering Rebellion* the story is never effectively interrupted in the sense that a developing story is surprisingly and suddenly brought to a premature end. The stories from the different sections of the work are all reasonably complete, with each containing a clear beginning, middle and an end, therefore, the user is unlikely to experience a sense of a story being interrupted and restarted. More likely, is that a user may experience a story retold in its entirety but in several different forms. Through the repetition of the story across the three sections, the attention of the user is perhaps drawn to the narrative structure of the work, but the impression that a story has been suddenly stopped is lacking.

Conclusion

This chapter first described the concepts of disrupted time and interruption and then demonstrated how I attempted to apply them in the two outputs. The success of their application was mixed with the use of disrupted time in *Optimisation* not providing a clear contrast with the time-frame used in the other scenes in the work. The use of interruption had a degree of success in *Opimisation for Lyfe* but failed to operate effectively in *Remembering Rebellion* as the story along each pathway was not interrupted but rather rounded off by the interrupting scene. An interruption should clearly break from the plot, jolting a user out of their chosen story pathway but the interruptions were placed between the story sections rather than within them. The concept of a 'reset scene' still served a purpose in both outputs as a tool for organising the material but its use in applying the two techniques was relatively ineffectual.

CHAPTER 4: STORY SHAPES AND STORY AS FUNCTIONS

This chapter compares several approaches to classifying stories by type, examining the number of categories and how these categories are identified and defined. To compare types of stories and improve understanding of story structure, diagrams are often used to represent the shape of a story. This visualisation process enables stories to be efficiently compared and provides a practical tool for a writer to understand the dramatic and emotional progress of their work. I describe how I used the concept of story shapes to integrate the different story types into *Optimisation for Lyfe* and examine how the approach taken hampered my ability to write and to create engaging dialogue and passages. I then examine the work of the narrative structuralists Vladimir Propp and Etienne Souriau and describe how by taking a structuralist approach to story, I created a model in the second output which includes six common story shapes and could be adapted to replicate many more.

Categorising Types of Stories

The theory that there are a finite number of stories has been proposed by many people although there is disagreement over the exact number of stories available. The theory derives from the idea that all stories bear similarities in form to each other and thus can be grouped according to certain common traits. Christopher Booker argues there are 7 “plots which are so fundamental to the way we tell stories that it is virtually impossible for any storyteller to break away from them”.⁹⁷ Alternatively, Stephen Jeffreys prefers 9 categories based around their beginnings, middle sections, and endings.⁹⁸ The actual number of stories identified is mainly dependent on how broadly the categories are defined and the willingness to find similarities between different narratives. Booker recognises the fallacy in trying to classify stories by admitting that not “every story fits neatly with mechanical regularity into one or another category of plot...There are areas of overlap between one type of plot and another”.⁹⁹ The process of categorising stories is inexact as stories which are superficially similar will still contain substantial differences. David Hare’s *Plenty* and Simon Stephens’ *Motortown* both examine how an individual adapts to civilian society after experiences in a war although the settings, the actions of the individuals and the approaches to time are completely different.¹⁰⁰ Both Booker and Jeffreys describe sub-categories to provide detail which illustrates how imprecise and unhelpful the broad initial category definitions are. Where the process of listing stories is useful to the writer is in providing a store of ideas and a shorthand for describing or comparing dramatic work. Jeffreys admits to not being “especially interested in the theory as a limiting critical concept” but “can report from practical experience that knowledge of the theory has helped me both to generate ideas for plays and to assist me in writing them”.¹⁰¹ For the playwright, thinking of stories in terms of their type is useful in comparing and critiquing plays and providing basic guidelines which may help in the writing process.

⁹⁷ Christopher Booker, *The Seven Basic Plots: Why We Tell Stories*, (London: Continuum, 2004), p9.

⁹⁸ Jeffreys, p168.

⁹⁹ Booker, p13.

¹⁰⁰ David Hare, *Plenty*, (London: Faber. 1999).

Simon Stephens, *Motortown* (London: Bloomsbury, 2013).

¹⁰¹ Jeffreys, p170.

The story categories themselves have descriptive titles which indicate the story structure in very broad terms. John Yorke uses the term 'Into the Woods' to describe all stories where the protagonist moves from an initial physical or mental state to another state where they are challenged, before returning to the original state.¹⁰² Booker describes this structure as 'Voyage and Return' which can be seen in plays as diverse as Lorraine Hansberry's *A Raisin in the Sun*, Martin McDonagh's *The Cripple of Inishmaan* and William Shakespeare's *A Midsummer Night's Dream*.¹⁰³ These terms act as a kind of shorthand for summing up the narratives which might relate to the action of the creative work, the journey of the character, or alternatively how the audience feels when engaging with it. 'The Hero's Quest' narrative might literally describe a fantastical quest or alternatively the overcoming of an everyday problem. This narrative has dominated the computer game industry, a fact that has been highlighted as evidence of a lack of imagination among digital storytellers.¹⁰⁴ However, the pervasiveness of 'The Quest' narrative can equally be seen as proof of the malleability of the story category. Rather than seeking precise definitions and strict differences between the categories, it is more useful to regard the categories as labels that allow a writer to easily relate to a piece of work.

Visualising Stories as Shapes

A method for describing and comparing different types of stories is to represent them visually as shapes or arcs. This visualisation process can help the writer in ordering the events of a creative work to ensure that the action conforms to a predefined story. It can aid understanding of the how the story unfolds and at what point during the work certain events occur. Among the different approaches to drawing arcs, a distinction can be made between arcs which track dramatic action and arcs which show fortune or general well-being of the characters. Gustav Freytag's triangle presents dramatic action as building across the first half of a play to a climax around the midpoint before the tension falls away to a resolution at the end (see Figure 10).¹⁰⁶ This triangle does not represent a certain type of story with certain types of characters but indicates a method for analysing how the events of a creative work are ordered. Alternatively, Northrop Frye sets misfortune against time in a graph and draws arcs to describe dramatic shapes which indicate the misfortune of the character(s) of the play. Comedies create a U-shape as the fortune of the characters diminishes towards the middle before ending on a high, while tragedy creates an inverted U (or n-shape) as the fortune of the characters tends to decrease towards the end of the work (see Figure 10).¹⁰⁷ Jeffreys presents a series of story shapes but does not clearly distinguish between dramatic tension and fortune, seemingly confusing the two to present an unclear hybrid system.¹⁰⁸ Of the two approaches, the shapes which show misfortune

¹⁰² John Yorke, *Into the Woods: A Five Act Journey into Story*, (London: Penguin, 2013), p14.

¹⁰³ Lorraine Hansberry, *A Raisin in the Sun; with commentary and notes by Deirdre Osborne*. (London: Methuen Drama, 2011).

Martin McDonagh, *The Cripple of Inishmaan*, (London: Methuen Drama, 1997).

William Shakespeare & Peter Holland, *A Midsummer Night's Dream' edited by Peter Holland*. (Oxford: Oxford University Press, 2008).

¹⁰⁴ Hartmut Koenitz, Andrea Di Pastena, Dennis Jansen, Brian De Lint, and Amanda Moss. "The Myth of 'Universal' Narrative Models." *Interactive Storytelling* (2018): 107-20, p110-111.

Barry Ip, "Narrative Structures in Computer and Video Games: Part 2: Emotions, Structures, and Archetypes." *Games and Culture* 6.3 (2011): 203-44, p111-114.

Marie-Laure Ryan, *Avatars of Story*, p185-190.

¹⁰⁶ Yorke, p52.

¹⁰⁷ Frye, p169.

¹⁰⁸ Jeffreys, p27-28.

against time provide a more comprehensive depiction of different types of stories as they can be developed to show a wider variety of story shape as Kurt Vonnegut demonstrates.¹⁰⁹ These shapes are clearly simplistic and impressionistic. Not every story or narrative will create an obvious shape, but they are helpful in visualising the emotional plight of character(s) especially for the writer who is attempting to create a certain type of story. Vonnegut and Booker both highlight William Shakespeare's *Hamlet* as having no obvious shape with each successive event neither indicating a mixture of fortune or ill-fortune that when combined create no clear form.¹¹⁰ However, a shape that appears formless due to the fortune of the character constantly vacillating with ups and downs is nevertheless a story shape. The fact that it is difficult to describe or compare to the shapes of other creative works does not imply that there is no shape at all.

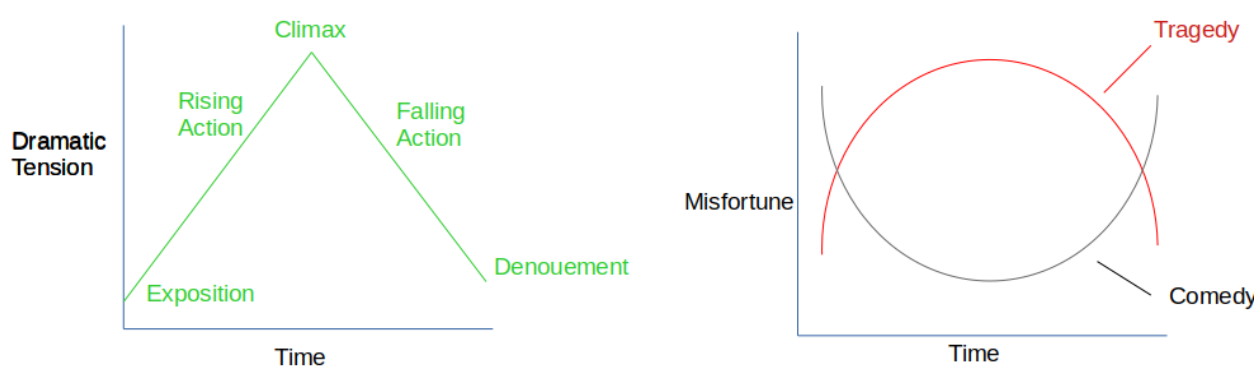


Figure 10 On the left, Gustav Freytag's triangle. On the right, a representation of Northrop Frye's arc of fortune.

A problem is presented by creative work which does not contain a clear story or involve characters. For work of this nature the shape can instead represent the emotional tone of the play. In Martin Crimp's *The Republic of Happiness*, it is not possible to track the plight of the characters throughout and there is no clear, continuous story but the emotional tone can be visualised to gain an understanding of the shape of the work (see Figure 11).¹¹¹

¹⁰⁹ Kurt Vonnegut, *Shape of Stories*, YouTube, 14 July 2018, <https://www.youtube.com/watch?v=GOGru_4z1Vc> [accessed 5 November 2021].

¹¹⁰ Booker, p10.

Kurt Vonnegut, *Shape of Stories*.

¹¹¹ Martin Crimp, *In the Republic of Happiness: An Entertainment in Three Parts*. (Faber and Faber, 2012).

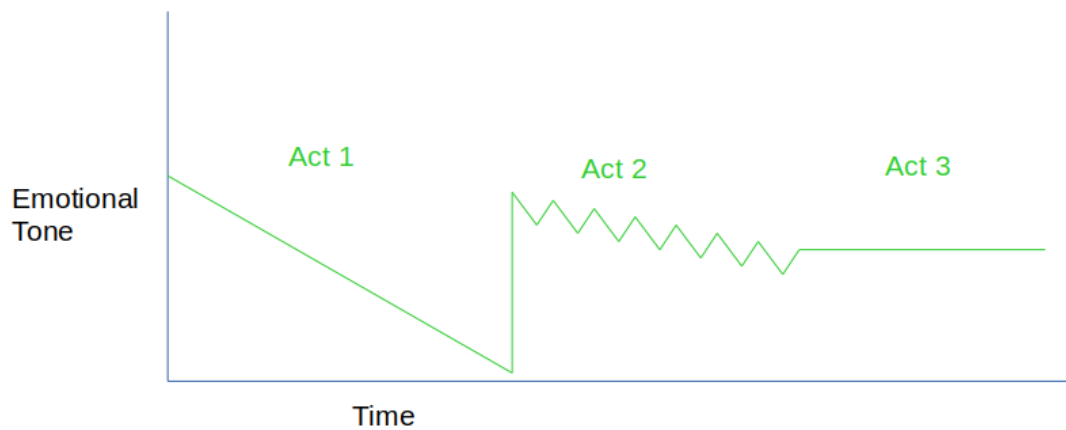


Figure 11 A representation of the shape of the emotional tone of 'In the Republic of Happiness'.

Act 1 presents a naturalistic family Christmas gathering which becomes increasingly tense and spiteful upon the arrival of a family member. Act 2 involves no characters but voices making a series of statements about technology, freedom and individuality which are at turns humorous and unnerving. The final act has two characters from Act 1 discussing in a nondescript place and time, ascertaining their personal happiness without expressing it. The accuracy or not of Figure 11 as a representation of Crimp's play is not of primary importance as this graphing of emotional tone is merely a tool to aid understanding. Viewing plays in this visual form is imprecise, even reductive, but for the purpose of the project I found this process to be an important step in understanding how plays are shaped. By first creating a visual representation, a clear shape is formed. By repeating this process with several plays, multiple shapes can be created, and through comparison, patterns can be distinguished. These patterns then become the shapes that can be imitated by the creative output.

Combining Different Story Shapes in *Optimisation for Lyfe*

Optimisation for Lyfe was principally an attempt to imitate multiple predefined story shapes within the same creative work. The intention was for each of the pathways in the work to correlate to a story shape with the user selecting the story shape they wished to experience and then following that pathway. As all the story shapes used the same characters and situation, the intention was to use the same content in several different story shapes. Where a scene would appear on the pathway, at the beginning or towards the end for example, would depend on the story shape and how the scene formed part of the shape.

The initial problem encountered was in defining which story shapes to imitate. I drew from the work of Andrew J Reagan et al who ranked the most commonly appearing emotional arcs by analysing the text of the English language novels in the Gutenberg Project.¹¹² The 6 most common shapes were given titles to describe their shape, drawing on those used by Vonnegut (see Figure 13). I selected 3 of the shapes to

¹¹² Andrew J Reagan, Lewis Mitchell, Dilan Kiley, Christopher M Danforth, and Peter Sheridan Dodds, "The Emotional Arcs of Stories Are Dominated by Six Basic Shapes." *EPJ Data Science* 5.1 (2016): 1-12. 'Project Gutenberg', [Gutenberg](https://www.gutenberg.org/), <<https://www.gutenberg.org/>> [accessed 25 November 2021].

imitate, Rags to Riches, Icarus, and Riches to Rags, as these 3 could be combined into one longer shape (see Figure 14). This meant that the content that formed part of the Rags to Riches shape formed the first part of the Icarus shape as the shapes were synonymous with each other. Similarly, content from the Riches to Rags shape formed the second part of the Icarus shape. The intention was for these story shapes to combine easily without large amounts of adaptation of the text to allow them to fit together. By reusing content in multiple story shapes, this reduced the amount of material to be written but also allowed me to explore how the combination of the same content in different permutations could result in different story shapes. Rather than changing lines of dialogue or manipulating the setting of a scene, my role as writer was to correctly place the content at different places in the stories so that its meaning might change according to how the user came upon it.

By approaching the text as content to be produced, it altered the type of impact I intended to have on the user. My primary goal became the creation of specific material to fulfil a space within the output rather than to communicate a particular theme or idea. The focus of my writing became the writing of small amounts of text to fill limited spaces within the output which formed part of the wider structure to which I paid little attention. The content needed to carry the user to the next step in the story but whether it represented a particular theatrical or linguistic aesthetic was of little importance. Thus, I became less concerned with the style, even the quality, of the writing deployed and diminished the importance of certain common dramatic qualities such as characterisation, intrigue, or drama.

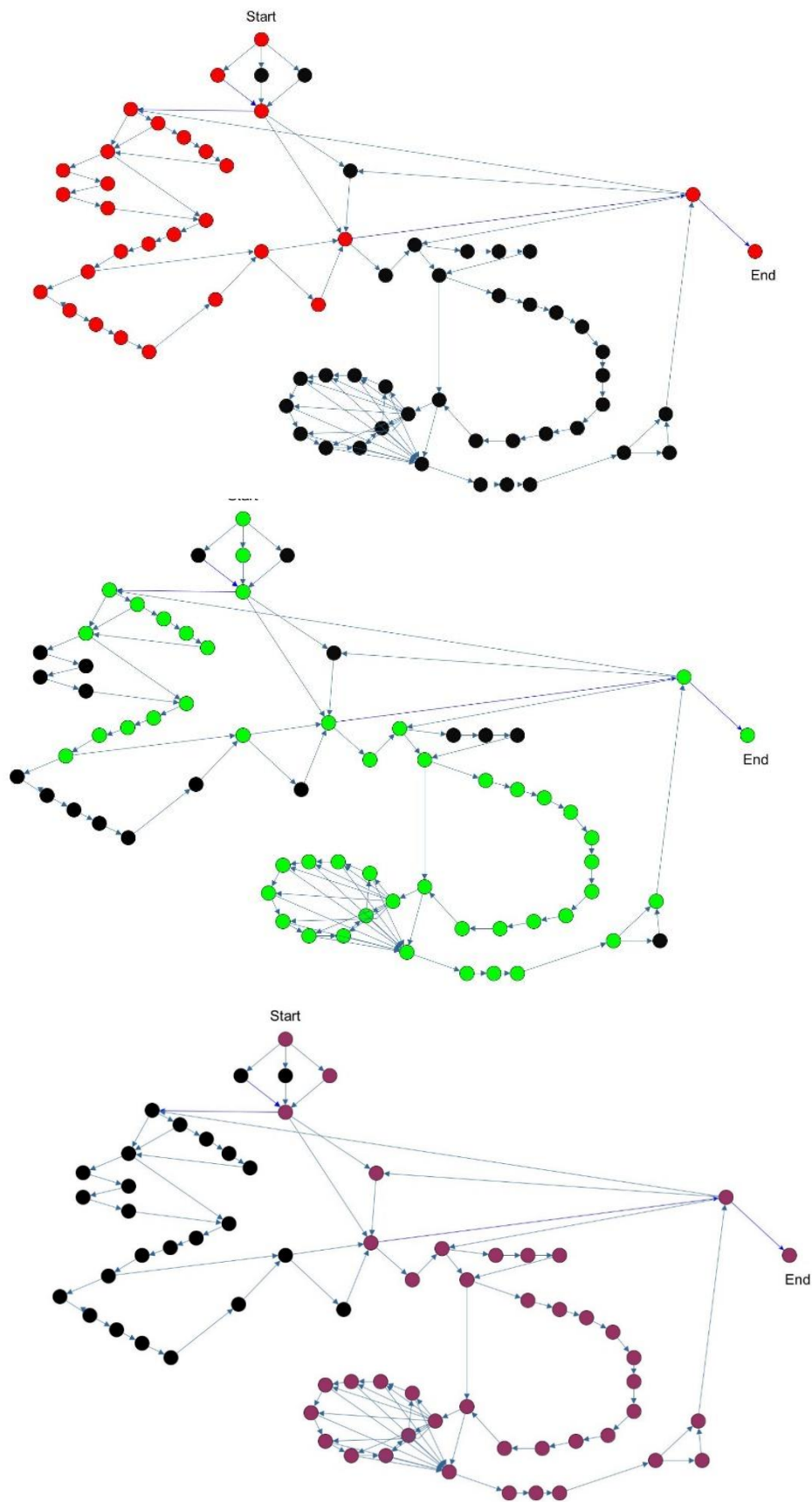


Figure 12: Three diagrams showing the pathways of the three story shapes in *Optimisation For Lyfe*. From the top: Rags to Riches in red, Icarus in green, Riches to Rags in purple.

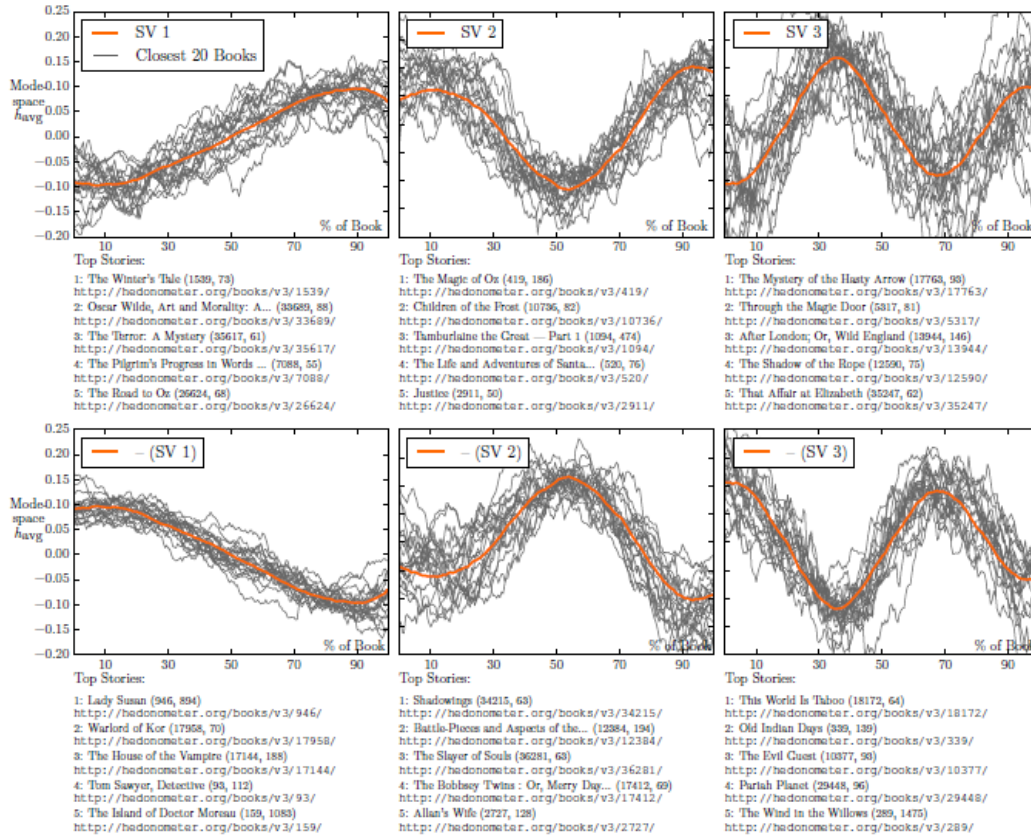


Figure 13 The six most common emotional arcs appearing in the Gutenberg Project according to Reagan et al. They are named (Clockwise from top left): Rags to Riches, Man in a Hole, Cinderella, Oedipus, Icarus, Riches to Rags.

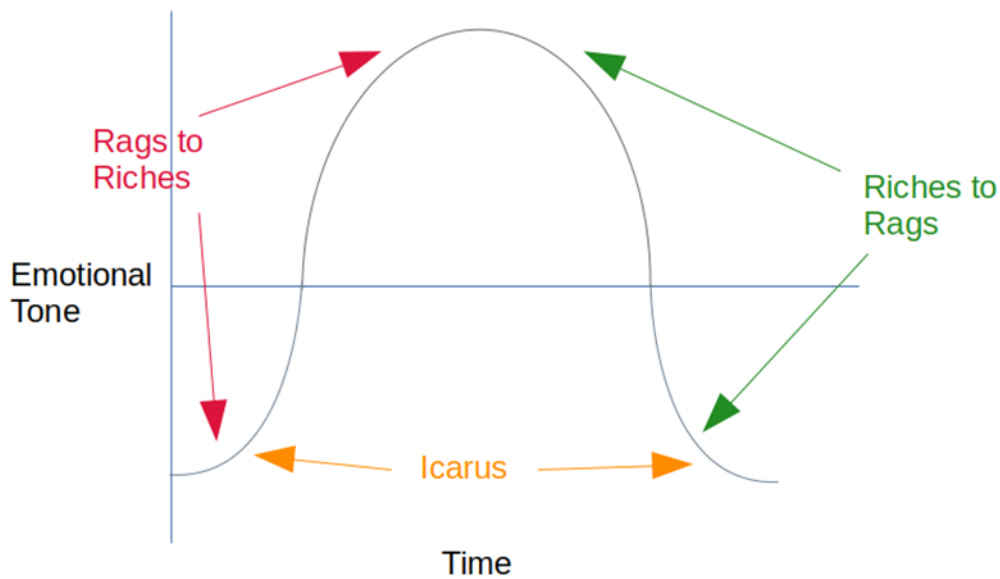


Figure 14: By combining the Rage to Riches shape with the Riches to Rags shape, the Icarus shape is formed

However, despite reducing the scope of the writing practice so that it resembled a process of content creation, my experience of writing this output revealed unforeseen difficulties which were a consequence of this approach. I struggled to create scenes which satisfied the two positions that each scene had to take in the different story shapes. A scene that formed part of the Riches to Rags shape could make no reference to an event that occurred as part of the Rags to Riches shape, as a user would not have experienced that part of the output. However, a user following the Icarus shape would have experienced the Rags to Riches shape and therefore a reference to the first part of the output might be needed or at least desirable in the context of the story. I attempted to resolve this issue by using dialogue to provide a brief synopsis of events occurring in the past, not experienced by the user. The extract below is taken from the first scene of the Riches to Rags shape and therefore halfway through the Icarus shape. Character '1' lists the events that have taken place in the Rags to Riches shape.

'1' And after all the work. All the fund raising and the vision building and the hiring and the firing and the coding and the trials and the failures you finally had a product. Were you happy?

'0' No! It wasn't what I wanted. It wasn't what I hoped it would be.

An extract from Optimisation for Lyfe.

A user engaging with this dialogue as the first scene of the Riches to Rags shape would thus be aware of the events that have taken place in the past of the characters, but the scene clearly lacks detail. There is no context provided to the events listed or how they substantially form part of the journey of the characters to that point. It would have been possible to provide a more complete description of the past events in this scene to remedy this issue, but a scene of exposition would be disruptive to the Icarus shape which did not require any exposition as a user following this shape would have seen all the events being described.

Although I have highlighted one scene from the output, the same problem applied to every scene. Each scene had to be examined and adapted so it functioned correctly in its different positions within the different shapes. The knowledge that each scene had to form a part of two story shapes restricted my ability to write as I was constantly evaluating the consequences of every line of dialogue from different perspectives. I was unable to build a coherent plot for even one story shape knowing it also formed part of other story shapes. Although practically challenging, equally problematic was the reduction in my personal investment in the characters and story shapes. My capacity to write convincing or believable characters was severely hampered and thus my writing took on a distant, slightly ironic tone in the output. As I was not able to emotionally connect to the characters or story shapes, it was challenging to write the content which might equally connect with the user. The consequence being that the section marked as the Riches to Rags shape within the output did not adequately represent that story shape.

In trying to imitate specific story shapes, I was preoccupied with how a scene or section of dialogue formed a part of the whole output. My primary concern was how a scene operated as part of multiple story shapes rather than focussing on the scene or section of dialogue itself. The process of creating this output taught me that I should adopt an approach which specified what each scene was for and detailed how to achieve it.

Viewing Story as Functions

Within the field of narratology, Vladimir Propp advanced the idea that narrative can be perceived as a series of interacting functions which operate together to create the narrative.¹¹³ In this context 'Function is understood as an act of a character, defined from the point of view of its significance for the course of the action'.¹¹⁴ After an analysis of Russian folk tales, Vladimir Propp proposed 31 separate narrative functions that a character can inhabit with the character who inhabits the narrative function varying according to the story.¹¹⁵ For example, the function 'Departure' involves a hero leaving the home environment whereas the function 'Struggle' involves a hero meeting the villain and engaging in conflict. It is obvious how a character can fulfil one function and then the other, but this could in theory occur in either order or involve multiple heroes depending on the story.

As a playwright, this approach to narrative as an interaction of functions was more useful than a simple list of different types of stories. A list of stories are the possible outputs and provide the final potential destinations for the creative work but do not provide much indication of how to arrive there. Viewing story as interconnected function allowed different parts of the narrative to be isolated and then used by the writer while they are in the process of creating a story. Propp's functions can be seen as building blocks to create the desired shape, adding, or removing functions to lengthen or alter the story shape as required.

Building on the concept of seeing story as interacting functions, Etienne Souriau demonstrated how by combining a set of dramatic functions together a practically limitless number of stories can be generated. Rather than seeking to categorise existing stories or represent stories visually, the approach of Souriau shows how many possibilities there are and how a system can be developed to create them by using symbols. Souriau uses the term 'dramatic situations' rather than stories and defines a situation as the structural figure designated by a system of forces in a moment of action'¹¹⁶ where the 'forces are dramatic functions, that is to say each one of them exists on the one hand as part of the system together thus constituted, and on the other hand operate functionally according to their nature such as defined by the system'¹¹⁷. Souriau is describing how each of the dramatic functions have a specific individual role as part of the system and that this role is partly defined by the system. He defines 6 dramatic functions in total and assigns each one a symbol which he combines to create thousands of potential dramatic situations.¹¹⁸ When placed together the line of symbols resemble mathematical expressions but are governed by a logic which is challenging to comprehend. An example of an expression is given in Figure 15: An example of the type of expressions that Souriau uses to describe a dramatic situation. The meaning of the expression is challenging to understand and not adequately explained by the author.

¹¹³ Genevieve Liveley, *Narratology* (Oxford: Oxford University Press, 2019), p115.

¹¹⁴ Propp (1968: 21) in Liveley, p127.

¹¹⁵ Liveley, p127.

¹¹⁶ Etienne Souriau, *Les deux cent mille situations dramatiques*, (Paris : Flammarion, 1950), trans. By Dominic Chamayou Douglas, p55.

¹¹⁷ Souriau, p55

¹¹⁸ Souriau, p94

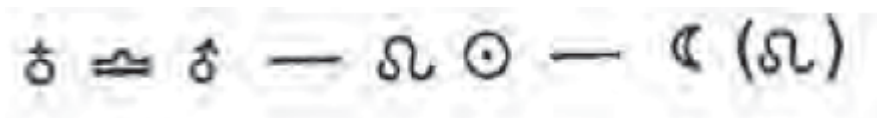


Figure 15: An example of the type of expressions that Souriau uses to describe a dramatic situation. The meaning of the expression is challenging to understand and not adequately explained by the author.

These expressions are challenging to understand and Souriau does not adequately explain what any of these expressions mean concretely. His intention is not to describe dramatic situations or stories but to demonstrate the many thousands of ways that a situation might be formed by the process of combining different functional elements of story. It is this algorithmic-inspired approach to generating dramatic possibilities which is relevant rather than what the approach ultimately produces. Souriau is uninterested in the overall quality of the situations that result from this process, stating 'It is obvious that of these situation-devices, there are some that are of only mild interest...it's the huge size of the result that is striking.'¹¹⁹ As there is no limit to how many functions may be used in a situation, there is no technical limit to how many potential situations there are as more functions can simply be added to any given expression to create a new one. Souriau does not expect a dramatist to be able to produce outputs for all these situations as his model is theoretical, but his method demonstrates how one might practically design a system which breaks down a play into functions before combining these functions to create stories.

This structuralist approach to narrative has been critiqued by the post-structuralist movement which challenged the notion that media, including story, should be interpreted through pre-established social systems.¹²⁰ In proposing a psychoanalytically inspired approach to narrative theory, Peter Brook criticises the structuralist interpretation of narrative as 'excessively static and limiting' and overly 'concerned with the identification of minimal narrative units and paradigmatic structures'.¹²¹ Despite these valid criticisms, adopting a structuralist approach is practically useful when designing a narrative system as it offers a framework through which to approach the writing. By separating the narrative into units, a series of specific tasks can be identified with each unit having a limited number of fixed objectives. This aids the writing process by reducing the scope of intended purposes for any particular unit meaning that the focus of a scene can be fixed on the satisfaction of a set number of specified goals.

Applying Story as Functions in *Remembering Rebellion*

The writing of *Optimisation for Lyfe* had revealed two specific problems which I hoped to avoid in creating the second output. First of all, the process was arduous and dysfunctional as I did not specify in advance the purpose of the scenes before writing them as the scenes had to serve multiple purposes in several story shapes. Secondly, the resulting story shapes did not conform to the type of shape that I was intending to replicate in that the emotional journey of each shape did not clearly imitate the shapes as identified by Reagan et al. I endeavoured to rectify these two issues when writing my second output, *Remembering*

¹¹⁹ Souriau, p14.

¹²⁰ Catherine Belsey, *Post-Structuralism: a Very Short Introduction*, (Oxford: Oxford University Press, 2002), p7.

¹²¹ Peter Brooks, *Reading for the Plot : Design and Intention in Narrative*, 1st ed, (New York: A.A. Knopf, 1984), p8.

Rebellion, by adopting a structuralist approach in that I viewed each scene as a function within a narrative system and placed the effective functioning of the system as the primary goal of the work.

To imitate the 6 most common story shapes as identified by Reagan et al three distinct movements are needed.¹²² The longest of the 6 shapes are the Cinderella and the Oedipus shapes which both have 3 distinct movements, either 2 movements up and 1 down or 2 down and 1 up (see Figure 16). I therefore divided my output into three sequential scenes with each scene given the function of representing a movement, either positive or negative. The function of a scene was to represent the emotional well-being of the characters and their general fortune in that scene so that it clearly demonstrated this movement when a user interacts with the work. By beginning with the system and allotting each scene a specific function within the system, my writing process was more fluid and clearer as I was able to focus on a clear objective for each scene.

Once the system of combining the different scenes together to create the story shapes was in place, I was then able to add another movement to the system, that of neutral meaning the well-being of the characters and their fortune remains stable, neither improving nor deteriorating. By introducing a third movement, the output could imitate many more story shapes and thus more accurately represent a greater variety of types of stories. To visualise this process, I devised a grid system to show the 9 different scenes.

		Scene 1	Scene 2	Scene 3
Emotional Tone	Positive		x	
	Neutral			
	Negative	x		X

Table 1: The grid which shows whether a scene is positive, neutral, or negative. The crosses are marked to show scene 1 as negative, scene 2 as positive and scene 3 as negative. This forms the Oedipus story shape.



Figure 1416: A depiction of the result in Table 1. The combination of negative, positive, negative scenes gives the Oedipus story shape as a result.

¹²² Andrew J Reagan, Lewis Mitchell, Dilan Kiley, Christopher M Danforth, and Peter Sheridan Dodds, "The Emotional Arcs of Stories Are Dominated by Six Basic Shapes." *EPJ Data Science* 5.1 (2016): 1-12.

Only once the narrative structure and system for creating story shapes had been devised, did I then write three versions of each passage which represented the emotional well-being of the characters: a positive, a neutral and a negative. The scenes were similarly structured, only varying in terms of the specific events which occur to the characters. This facilitated comparisons between two variations, for example between a neutral and a positive, as the events of each scene could be directly juxtaposed to assess whether an event from one variant was clearly more positive for the characters than the equivalent event from another variant.

By combining the 3 variants of the 3 passages in all the different possible combinations, a total of 27 different story shapes can be represented by this system (see Table 2), the output imitating the 6 most common story shapes along with many others. However the approach to emotion is simplistic with the passages presenting stereotypical concepts of positive and negative events. In a scene where the protesters are gathering, a positive variant of the scene contains sunny weather, many protesters, and supportive bystanders. A negative variant contrasts these events with rain, a small number of protestors and harassment from passers-by. The advantage is in the comparison between the two displaying obviously more positive events in one variant, but it is unclear whether this difference is genuinely representative of an entirely separate story shape. It can be argued that there is only one story in the output which is presented in positive, neutral, or negative tones with the user selecting between the different presentations rather than a panoply of multiple story shapes. The work then becomes less an output for representing multiple story shapes and more a means to represent one story in multiple forms based on emotion.

	Scene 1	Scene 2	Scene 3	
Shape 1	Pos	Pos	Pos	
Shape 2	Pos	Pos	Neu	
Shape 3	Pos	Pos	Neg	
Shape 4	Pos	Neu	Pos	
Shape 5	Pos	Neu	Neu	
Shape 6	Pos	Neu	Neg	
Shape 7	Pos	Neg	Pos	
Shape 8	Pos	Neg	Neu	
Shape 9	Pos	Neg	Neg	
Shape 10	Neu	Pos	Pos	











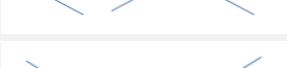






Shape 11	Neu	Pos	Neu	
Shape 12	Neu	Pos	Neg	
Shape 13	Neu	Neu	Pos	
Shape 14	Neu	Neu	Neu	
Shape 15	Neu	Neu	Neg	
Shape 16	Neu	Neg	Pos	
Shape 17	Neu	Neg	Neu	
Shape 18	Neu	Neg	Neg	
Shape 19	Neg	Pos	Pos	
Shape 20	Neg	Pos	Neu	
Shape 21	Neg	Pos	Neg	
Shape 22	Neg	Neu	Pos	
Shape 23	Neg	Neu	Neu	
Shape 24	Neg	Neu	Neg	
Shape 25	Neg	Neg	Pos	
Shape 26	Neg	Neg	Neu	
Shape 27	Neg	Neg	Neg	

Table 2: A table showing the 27 different story shapes which can be formed by the second output *Remembering Rebellion*.

Conclusion

The initial step in writing the story shapes involved understanding the systems for categorising stories by their plots and events while recognising that the categorisation process is an imprecise and occasionally subjective process. Different methods exist for representing these story categories as shapes, either based on the dramatic tension of the work or the emotional tone and fortune of the characters, with the shapes themselves enabling different works to be easily and quickly compared. Although this is a simplistic manner in which to depict stories, especially considering the infinite variety of possible stories, the method is effective in enabling the visualisation of the different categories and facilitated the creation of the two outputs. In *Optimisation for Lyfe*, the work did not satisfactorily recreate the shape of identifiable story types effectively, lacking in emotional depth and character definition. However, it allowed specific issues to be pinpointed and provoked an alternative approach in the second output which prioritised structure and the

creation of system for generating story shapes efficiently. By adopting a structuralist approach, the story shapes produced were easier to identify, distinctly different from each other and replicated the shapes identified by Reagan et al, albeit by employing a simplistic conception of positive and negative events and emotions.

CHAPTER 5: REFLECTIONS ON USING TWINE

The decision to use Twine was taken due to the software being specifically designed to enable the writing of non-linear stories, with the hope that the software would enhance and facilitate the creative process. However, over the course of the project I found that using Twine unexpectedly altered my writing process and influenced the final outcome. Specifically, the visual interface focussed my attention on the overall structure of the work rather than the content, intensifying the presence of narrative structure in the project as a whole. Simple coding elements must be integrated into the script in order for the output to function as intended on the software, therefore I consider how the coding language became a part of the script itself.

The Effect of the Interface

The Twine interface consists of a pale blue background and small grey boxes, known as passages, into which text can be written. Each passage can then be linked to any number of other passages around the screen with thin black arrows. The author can move these passages around the screen, simply and quickly, but it is the black lines which show how the boxes are linked together. '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.'¹²³ Using Twine therefore feels akin to writing on post-it notes which are then stuck onto a wall or board to map out a story.¹²⁴ The interface therefore encourages reflection on the work's narrative as visually this is the first element of the piece which is immediately visible. The lines of text are hidden within the boxes, but the narrative structure of the piece is permanently highlighted. Using Twine therefore emphasises the importance of narrative structure, with the text becoming secondary. This allayed with my overall approach in *Remembering Rebellion*, in which designing the narrative structure was the principal focus of the work, with Twine reinforcing the process and providing an accessible tool with which to create the output. Although the passages could be placed anywhere on the page it was important during the process for the visual layout of the work to reflect how I visualised its structure. The positions of the passages on the screen have no consequence for the experience of the user but as the designer it was useful to be able to see the layout of the narrative as it reinforced my understanding of how the narrative operated and whether it accurately represented my ambition for the work.

The passages themselves are relatively small on the screen and the software runs more slowly when they are filled with large amounts of content. There is therefore a visual and practical encouragement to write short sections of text which can then be linked together rather than placing all the text in a single passage. 'The size of a passage box, and the very term passage, encourages creators to think and work in nodes.'¹²⁵ However, this altered my capacity to develop complex ideas or follow lines of thought as instead of physically scrolling up through the same document to see the progression of an idea and how it flowed from one scene to another scene, as I might when using a word processor, it was necessary to exit the box I was working on and open a separate box. This physical action eroded the normal processes of my working method as it became more difficult to tie together complex notions across multiple lines of dialogue and

¹²³ Salter and Moulthrop, p8.

¹²⁴ Jane Friedhoff, "Untangling Twine: A Platform Study", *Proceedings of DiGRA 2013: DeFragging Game Studies*, p3-4.

¹²⁵ Salter and Moulthrop, p8.

over several passages. The passages were compartmentalised physically on the screen and this separation was reflected the writing process itself.

Integrating Code into the Outputs

For an output to function as expected, that is for the links to work, the images to appear as expected the text to be formatted correctly, certain rules on syntax must be followed¹²⁶. Each of the passages needs to contain some code for it to form a part of the whole as 'strict rules must be followed to ensure readability following the procedures of Twine's underlying machine'¹²⁷. Code therefore must be integrated with the text to ensure the passages link together and the media functions correctly. 'Twine is entangled with code, and the code is at some level inescapable'¹²⁸. The consequence is that the code is not an additional element attached onto the dialogue but an integral part of the text itself, becoming integrated. To separate the two becomes meaningless, as to extract the dialogue from the surrounding code would be to divorce the lines of their purpose and use within the text.

```
'Elliot'           Of course it was. How could I forget that {  
(link-repeat: 'terrifying voice')[  
  (track: 'glendajackson', 'play')]  
  } terrifying voice commanding us.  
'Amari'           A good speech. It was a good day.(text-colour:red)[  
[['Elliot'        Although it was beginning to drag a little.->B2]]  
[['Elliot'        Compared to what came next though.->B1]]  
[['Elliot'        But there was something unsettling about it all.->B3]]]
```

In the above extract from the *Remembering Rebellion*, the words "terrifying voice" appear as a link within the text. When the user clicks on the link, Twine plays an audio file of a terrifying voice that has previously been loaded into the scene (see Figure 17). The three lines spoken by Elliot also appear as links with each one taking the user to a different passage. The lines in themselves are only one part of their role in the text, the other part is how the user interacts with them. The code must be seen as part of the play text, just as stage directions or character descriptions are an integral part of the text in traditional play forms.

¹²⁶ Exactly which rules depends on which story format is used. All my outputs used the Harlowe story format.

¹²⁷ Salter and Moulthrop, p20.

¹²⁸ Salter and Moulthrop, p20.

Elliot Of course it was. How could I forget that [terrifying voice](#) terrifying voice commanding us.

Amari A good speech. It was a good day.

Elliot [Although it was beginning to drag a little.](#)

Elliot [Compared to what came next though.](#)

Elliot [But there was something unsettling about it all.](#)

Figure 15: The given output on Twine from text input above. 'Terrifying Voice' is in blue as it is an audio link. The text in red are links to other passages in the output.

Conclusion

The use of Twine served to emphasise the project's focus on narrative structure. As the writer's interface permanently displays the structure of the work while mainly hiding the content of each scene, the interface reinforces the impression that structure is the predominant requirement of the work while also reducing the importance of the lines of dialogue that lie within each passage. Although narrative structure was already the focus of the project, I underestimated the effect of using Twine had in enabling structure to be visualised and planned to an extent that I never would have attempted without using such a tool. The user interface alters the play text itself through the integration of coding instructions which govern the decisions for the user and the pathways through the material as well as aesthetic decisions over font styling, pictures and music. These instructions are a part of the inputted text but do not appear to the user who only sees the final output with the instructions translated into media, narrative pathways and visual styling. With reflection, although the project output is the Twine work hosted on itch.com, the final play text might be the html version which includes the coded instructions. The code's significance to the work is rooted in the fact the language contains the instructions for creating the narrative structure itself. Therefore, these words are as relevant to the final user experience as the visible dialogue, arguably more so in the context of this project where narrative structure is fundamental.

CHAPTER 6: CONCLUSION

This practice as research project sought to demonstrate how to create a multi-path narrative interactive play text that imitates different story shapes along its pathways by taking a multimodal approach. The writing process resembled my customary approach in that I proceeded step by step, reflecting and adjusting as I progressed. The principle difference resided in the emphasis on narrative structure as the element of primary importance. This was enhanced by the use of Twine as a writing tool due to its interface which provides a visual layout of the narrative structure of the work, focusing attention on the structure to the detriment of other narrative elements. The result was an emphasis on form over content with little interconnection between the two. By focusing on structure, my role as a writer expanded to include the concept of narrative design as a separate stage in the process. In the second output, I began by designing the narrative without thought to the content of the work itself with the approach being primarily visual, involving the drawing of narrative structures using Twine and Yed graph editor. This ensured a certain level of choice to the user which in turn guaranteed a minimum of narrative interactivity, a clear advancement on the interactivity of the first output. This approach established a method for including multiple different story shapes but this step in the process needed to be planned and designed as the experience of creating the first output demonstrated that a robust design would not occur organically. The planning and design of the narrative structure also allowed other techniques such as interruption and disconnected time to be integrated into the work at precise moments which could be selected and inserted in advance, although the effectiveness of the application of these techniques in the outputs is negligible. The multi path narrative structure created for *Remembering Rebellion* is then far more complex and intricate due to structure being considered in isolation of the content.

There are however consequences due to the isolation of narrative structure, principally the reduction in the link to the content itself. Consequently, the importance of the content to the output as a whole is minimised, along with the elements such as plot, characterization, dialogue and themes. Once the structure of the work is set out, there was little room for modification or improvement thus a level of flexibility should have been designed into the structure at the beginning of the process to avoid such rigidity. The narrative and multiple story paths which were eventually written were created in response to the structure rather than in a symbiotic relationship with form informing content and vice versa. The resulting story shapes are thus well adapted to the structure but the content itself lacks depth with the characters and dramatic situations appearing as artificial constructions, designed to fit a template. The writing process itself ultimately becomes mechanistic, functional and more akin to the creation of small blocks of content rather than the expression of my artistic sensibility. The inability for the content to inform the form also led to simplistic story shapes, with no room for nuance or subtlety in emotions due to the prescription of the emotional tone of each passage in advance. It may also be argued that rather than creating multiple distinct story shapes the output is more akin to multiple variations on the same basic events. Although valid as a criticism, I see *Remembering Rebellion* as a work which represents multiple distinct story shapes through the variation of set of simple, chronological events. The resulting piece may be a technical exercise, but the outputs combined have demonstrated a method for writing a multipath narrative combining multiple story shapes.

The choices in the narrative provide moments for interactivity with the increase in choice resulting in an increase in narrative interactivity. The different types of choices available to the user provide varying levels of influence over the narrative with some branches in a multi path structure having greater influence over the narrative than others. The degree to which a branch influences the narrative thrust of any story must equally be considered to ensure the choices available to the user are consequential rather than peripheral or banal. The two outputs took different approaches to the narrative choices available to the user with *Optimisation For Lyfe*, presenting an explicit choice to user of the story shape to follow. *Remembering Rebellion* contrasted this by allowing the user to build the story shape gradually as the work progressed, only suggesting the general emotional tone of the following section at the moment of decision. The progressive approach allows for greater flexibility and modularity in the work but perhaps undermines the sense of a link between the different passages and thus the shape of the story being followed. The impression may be one of a series of loosely collected passages rather than a definite, identifiable story shape.

Using Twine as a tool to create the narrative and write the output facilitated the writing process by rendering it far more efficient. The interface allowed the narrative structure to be visualised and encouraged the conception of complex narrative forms. The constant visualisation of the structure provoked the expansion of my understanding of the word 'narrative structure' to include the intersection of multiple stories and peripheral elements to the main story whereas before this process, structure referred primarily to plot, action and beats. However, the permanent visual focus on the structure enhanced the issues inerrant in prioritising structure as outlined above. The visual element of separate passages on the screen emphasised the malleability but equally the disconnectedness of the different texts from each other, all encouraging the idea that the piece was made up of individual blocks of content to be generated and hindering the establishment of any aesthetic links between them. The necessity of using coded instructions for the output to function correctly, led to these elements becoming a part of the text themselves. Although invisible to the user, these elements operated as stage directions and formed an integral part of the text.

For practice as research scholars, this project provides a multimodal example of integrating interactive narrative design tools and concepts into the praxis of a writing practitioner, highlighting the challenges of adapting both writing practice and outlook to incorporate concepts which are rarely considered in writing for the stage. Fellow playwrights can draw on the method presented as a means to experiment with multipath narratives and story shape to enable a broader understanding of how narrative structure can be employed in playwrighting and how interactivity may be incorporated into their writing. Using the narrative structure presented, a playwright may expand the number of emotional possibilities to incorporate more nuance and specificity and to create longer stories which incorporate other story shapes not explored in this project.

Any further research into this area would logically include an investigation into performative possibilities for the work which might take advantage of communicative tools, such as Zoom or Whatsapp, to create online performances. However the possibility of translating the work, or a version of the work, to the stage may equally be explored perhaps investigating how the audience might be able to influence the narrative as easily and effectively as a user is able to when interacting with Twine on a computer screen. This project has focussed primarily on the writing process of an interactive play text with some consideration of

the user interaction with the work. It therefore lacks a consideration of the theatricality of the output and of Twine as a platform for making theatre which should be the focus of any future inquiry if projects of this type are to be categorised as theatre.

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