

The future of interactive literature

UNIVERSITY OF TURKU

Department of Computing

Master's Thesis

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Interactive literature is a fresh form of literature that has not yet existed even for a hundred years, yet it has a wide history, jumping between continents and including a number of evolutionary steps. Its evolution is still ongoing and this thesis aims to map out where it might be headed next.

The first part of the thesis focuses on unearthing the past of interactive literature in full, starting all the way from the first gamebook released in 1930 and making its way to the present. The second part builds on this by trying to see where it might be heading next. For this purpose a scenario-based questionnaire (focusing on technological advancements) was deployed on forums filled with both consumers and developers of interactive literature. Answers to the questionnaire ended up being quite few and biased towards developers so the results are analyzed with a grain of salt. Also past personal experience in writing interactive literature is discussed in order to provide a more writer-centric perspective into currently available tools and needs.

Keywords: interactive literature, visual novel, text-adventure, hyperfiction, gamebook, interactive fiction

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Vuorovaikutusmuotoilu

Toukokuu 2022

Interaktiivinen kirjallisuus on tuore kirjallisuuden muoto, joka ei ole edes sata vuotta vielä, mutta sen historia on kattava, hyppien mantereelta toiselle lukuisien evoluution muotojen myötä. Tämä evoluutio on vieläkin menossa ja tämä tutkielma pyrkii selvittämään minkä muodon se ottaa seuraavaksi.

Tutkielman ensimmäinen osa keskittyy interaktiivisen kirjallisuuden historian kokonaisvaltaiseen selvittämiseen. Tutkimus alkaa ensimmäisestä pelikirjasta, joka julkaistiin vuonna 1930 jatkaen siitä aina nykypäivään asti. Tutkielman toinen osa rakentaa edellisen päälle yrittäen selvittää mikä olisi seuraava askel historiassa. Tämän selvittämiseksi tutkielma käyttää skenaariopohjaista kyselyä, jota esitettiin erilaisilla foorumeilla, joiden käyttäjiin kuului niin interaktiivisen kirjallisuuden kuluttajia kuin kehittäjiäkin. Kyselyyn saatiin vain muutamia vastauksia jotka tulivat suurimmaksi osaksi kehittäjiltä, joten tulokset analysoidaan tämä huomioon ottaen. Kyselyn lisäksi myös kertynyttä henkilökohtaista kokemusta interaktiivisen kirjallisuuden kirjoittamisesta käydään läpi. Tämä tuo kirjoittaja läheisemmän näkökulman tarjolla oleviin työkaluihin ja tarpeisiin.

Avainsanat: interaktiivinen kirjallisuus, visual novel, tekstiseikkailu, hyperfiktio, pelikirja, interaktiivinen fiktio

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1 Introduction

Since the dawn of man, stories have played an important part in our culture. The first stories were told by word of mouth. Their purpose was mostly to teach children what to do and what not to do, to illuminate dangers and important lessons in life. Eventually stories evolved from pure teachings to more fictitious adventures, that were told to entertain, to impress and to motivate people. Some examples of these stories are the various mythologies, stories about gods and divine heroes, who braved the world and fought against impossible enemies. As human civilizations started to grow and unite, these stories were eventually written down to make sharing them easier, marking the beginning of the written history. The oldest piece of literature still intact today, is considered to be *The Epic of Gilgamesh*. It was written between 2100 and 1200 BC, and consists of twelve stone tablets. The epic poem tells the story of a demigod, King Gilgamesh, his meeting with Enkidu and his search for the secret of eternal life. (Brandão, J.L., 2017)

Literature kept evolving and the number of literary works kept growing, however, not many people were able to read at the time. The privilege of reading and writing was reserved for priests and aristocrats or other high ranking individuals within society. The average citizen could only listen to the stories read to them much like in the spoken era of history. Possibly the most famous piece of literature for a long time was *The Bible*, which was quickly spread across Europe after its writing and stayed topical for centuries. It was written in Hebrew or Greek, which kept most citizens from being able to read it as neither was their spoken language. Martin Luther was the one who translated *The Bible* to German, allowing the common man to read it. This act also boosted reading to become a common skill among the people, which also led to a need for more written copies of the novel. Eventually, this gave birth to the printed era of history thanks to Gutenberg's *Bible* in 1400s, which was printed with movable-type printing system, the first of its kind in Europe. (Wagner, B; Reed, M., 2010)

The new printing technology and interest in reading paved the way for future authors to leave their marks in history, such as Miquel de Cervantes, Janet Austen, Edgar Allan Poe, Charles Dickens, Jules Verne, Natsume Souseki, Agatha Christie,

J.R.R. Tolkien and George Orwell among others. All of their novels and novels similar to theirs will henceforth in this thesis be categorized as static literature.

As an opposition to the aforementioned novels, inspired by board games and role-playing games, interactive novels were born in the 1900s. These novels, such as Edward Packard's *Choose Your Own Adventure* books, allow their readers to actually interact with the story and direct the story in a direction of their choosing, allowing for several unique stories for their readers. The rise of digital technology has taken the possibilities of these kind of novels even further. These kind of stories will henceforth in this thesis be categorized as *interactive literature*.

Technology has always been a thriving force in human culture, originally meant to increase survivability, then to increase comfortability and finally to enhance entertainment. Literature has not been exempt from this advancement and is currently sitting at the crossroads of modern technology. On one hand literature is still being written the same as it has been for thousands of years (static literature), on the other, modern innovations are being used to allow reader interaction within written stories (interactive literature). This thesis seeks to find out where interactive literature has come from and hopefully map out a direction where interactive literature will go from here on out.

This thesis is divided into two parts, one to research the past of interactive literature and one to discuss its future.

Part I focuses on the history of interactive literature, and introduces the various iterations and formats of interactive literature in their respective context. The final chapter then recounts the history in retrospect, talking about where each iteration is in today's world. The point of Part I is to answer the first research question: What is the history of interactive literature?

Part II on the other hand tries to answer the second research question: What is the future of interactive literature? It discusses the future of interactive literature, based on a questionnaire about different scenarios that, perhaps, could be. It also includes a chapter about my own experiences as a writer and what could possibly be learned from that aims to unearth some aspects and issues that writers in the field are currently dealing with that could perhaps lead to new innovations in the future.

Part I – The history

This part is dedicated to the history of interactive literature, introducing each iteration in chronological order. The history is looked on from both Western and Japanese perspectives. The point is to look to the past, try to find some trends and things that have affected their evolution as well as answer the first research question: What is the history of interactive literature.

The 1st chapter is about physical interactive novels, more commonly referred to as gamebooks. The 2nd chapter is about adventure games, text and graphical, with further categorization done within the chapter. The 3rd chapter is about hypertext fiction. The 4th chapter is about visual novels, which are also defined more accurately within the chapter. The 5th chapter is a Where-are-they-now for the various forms of interactive literature, which explains what is their place in the current world and why.

2 Interacting with physical novels

During the 1920s, a couple of writers, essayists and activists, namely Doris Webster and Mary Alden Hopkins had been releasing a multitude of personality test and fortune telling books. Each book consisted of various questions and after answering each of the questions, the reader would be lead to a paragraph that told their their fortune or provided some personal analysis. In 1930, the two authors would write a different kind of book, one with more context for the questions and even a story around them. They wrote *Consider the Consequences* (Fig 1.), a romance novel aimed for

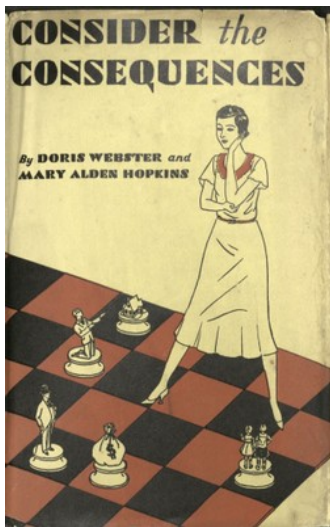


Figure 1. The cover page of *Consider the Consequences* (from [wikipedia.org](https://en.wikipedia.org/wiki/Consider_the_Consequences))

adults (Siderite, 2021). The novel is now a rarity, with only, supposedly, a thousand or so copies existing, most of which are the property of museums and collectors. The closest one is likely to get to reading the novel is listening to KZSC Santa Cruz 88.1FM's *Audience Adventure Show* (2018) recording where the novel was read alongside a (then) PhD candidate, James Ryan, who researches branching narratives. Ryan has also done a "playthrough" of *Consider the Consequences!* on Twitter in 2017, with the help his audience. What made it different from other novels of the time, as Ryan explains, is that it features three protagonists, each with their own story (See Fig. 2b). The novel gives the reader choices at certain key points, which have the reader jump to a certain page of the book to continue the story (See Fig. 2a). Each decision leads to a new branch of the story, with more than 40 different endings waiting for the reader. *Consider the Consequences* is the first example of an interactive novel and, while often forgotten by time, Webster and Alden are pioneers of the interactive novel format. What makes *Consider the Consequences* stand out even today, is the amount of meaningful choices and the way it handles some pretty serious topics, like alcoholism, suicide or life in a broken home.

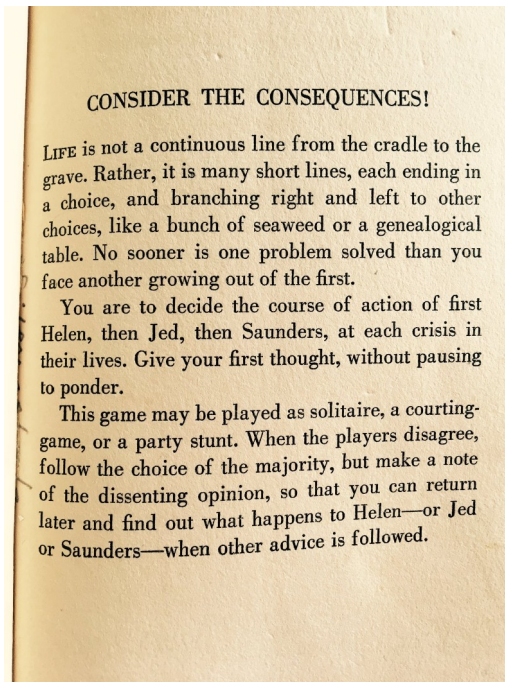


Figure 2a. the introduction page from *Consider the Consequences* (from Ryan's twitter)

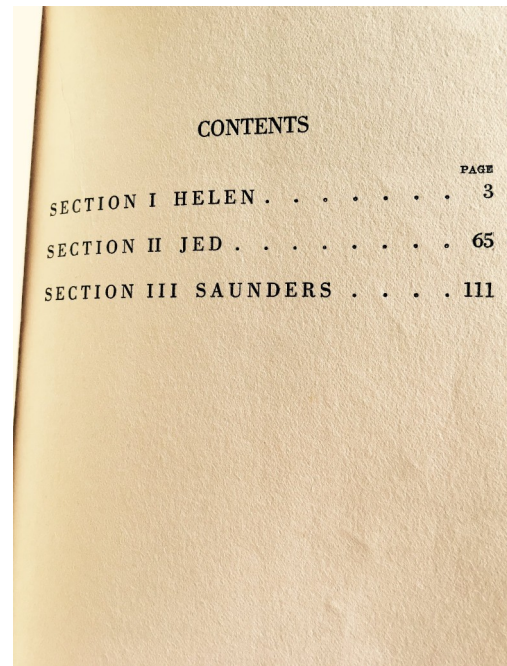


Figure 2b. The character select page from *Consider the Consequences* (from Ryan's twitter)

Unfortunately, *Consider the Consequences* remained a one of a kind novel for almost 30 years, during which it practically vanished from the history books. It was not until the late 1950s that a similar mechanic was implemented by a series of training books or programmed instructions, the *TutorText* series. Published by Doubleday, the series contains books that teach various subjects, such as computer sciences, chemistry or even playing chess. Each book would first explain some theory, give a problem and offer a few possible answers to the said problem. Each possible answer would direct the reader to a specific page. Should the reader get the answer wrong, there would additional explanation on the page and they would be directed to return to the original page again. If they got the answer correct, the page would offer a confirming explanation as to why it is the correct answer and direct the reader to the next part of the

The homemaker saves *more than a little bit* of food nourishment when she cooks in waterless utensils. She saves almost all of it!

Let us give you a couple of dry statistics.

The nutritional waterless method saves all but 2 per cent of the minerals in foods. It saves 38 per cent of the vitamin C and 22 per cent of the vitamin B, which ordinary cooking would lose. These are only examples, but we think they show impressive savings.

Nutritional cooking saves all of the natural flavor. Vegetables and fruits glisten with bright, natural color and moisture. And meats turn out tender and juicy. If you ate a nutritionally-cooked meal blindfolded, you wouldn't recognize the foods because of their delightfully different flavors.

Why do nutritionally-cooked foods taste so delectable? Let us tell you.

The main reason is that nutritional cooking holds on to natural food juices. All fresh foods are from 50 to 70 per cent water. And this water (or juice) contains most of each food's flavor, vitamins, and minerals.

When you use waterless cookware properly, moisture in the food forms a vapor which seals the utensil. Then, the waterless utensil becomes a miniature airtight oven in which a food cooks in its own healthful, delicious juices.

Choose the complete answer.

A food looks better and tastes better when it cooks:

Over even heat. page 12

Without water. page 15

In its own moisture. page 18

Figure 3. A page from *Tutortext on Nutritional Cooking* (from archive.org)

book. These features can be seen in the few *TutorText* books available online, such as the one on trigonometry or nutritional cooking (Fig. 3).

While the *TutorText* series is certainly qualified to be considered gamebooks, officially, at least today, they are categorized as programmed instructions, but their importance in popularizing gamebook mechanics is still worth noting. As Williams (2020) notes, however, TutorTexts enjoyed their share of success in the 1960s, but much like their predecessor they more or less disappeared from the history books afterwards.

Following the trend set by the *TutorText* series, British authors Kenneth James and John Allen started making their own series of interactive books in the beginning of 1970s. They released the *Tracker Books* series, which, according to Demian's Gamebook Web Page, is considered to be the first published series of gamebooks, kickstarting the trend for fiction authors. The series is aimed for children, with illustrations on each spread and only short sections of text. While the readers were given quite many choices to make throughout, each novel only offered a few different endings. They were designed to be more about solving the puzzle of the book than making your own path through it.

The Americans were not too far behind. On the latter half of the 1970s, author Edward Packard began writing his own series of interactive novels. He started with a short series of only two books, called the *Adventures of You*. After this, he would move into writing, arguably, the most well-known series of gamebooks, the *Choose Your Own Adventure* series. Between 1980 and 2000, the *Choose Your Own Adventure* series got close to 200 entries (an example in Fig. 4), and the name would become synonymous with the term gamebook. The books are largely aimed at children, but manage to combine everything the earlier gamebooks have done with plenty of choices and endings and some even contain some pretty serious subject matter (not necessarily on the level of *Consider the Consequences*, however).

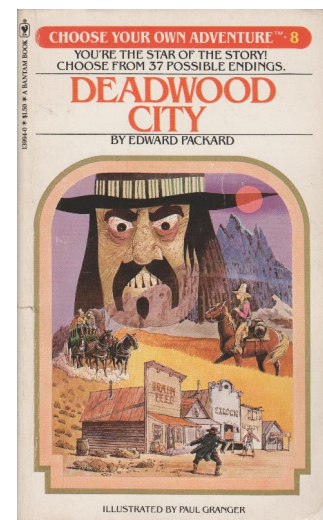


Figure 4. The cover page of *Deadwood City* (1978), the 8th book in the *Choose Your Own Adventure* series.

Another notable event of the 1970s is the birth of tabletop role-playing games (TTRPGs). These games usually featured a fantasy setting and allowed players to assume the role of mystical heroes venturing on an adventure. Players could choose whatever kind of hero, or antihero, they wanted to be. They were allowed to freely create their character, be it a rogue elf warrior, a thieving dwarf, or a noble human mage, everything was up to the players themselves. The adventures they could go on were just as endless, as one the players would act as the Game master in charge of creating the adventure for the others to follow. Most decisions and battles within the Game master's script were decided by a roll of the die, giving the players a fair and possibly dreadful trial.

The first, the most influential, and still the most popular TTRPG to date, and by a long shot according to Cook (2006), is *Dungeons & Dragons (D&D)*, first published in 1974. It was designed by Gary Gygax, based on his experiences playing Dave Arneson's *Blackmoor*. Arneson described *Blackmoor* to Gygax as a fantasy variant of Gygax's own *Chainmail* game. But in fact it was entirely different as Rob Kuntz explains in his interview with D'Anastasio (2019). Kuntz and Gygax's first experience with *Blackmoor* was in Arneson's basement on a ping-pong table (see Fig. 5). Kuntz recounts Arneson opening a binder as a screen between him and the players, from where he would then control everything, Arneson and his dice. Players would only need their imagination to play the game as Arneson led them on adventure with an enchanted inn, a castle, magical elves and a troll. They played long into the night, and the next day Gygax called



Figure 5. Dave Arneson's original TTRPG set up on top of his ping pong table. (D'Anastasio, 2019)

Kuntz over to his house and started planning what would become *Dungeons &*



Figure 6. Various dice typically used in D&D sessions (from wikipedia.org)

Dragons. Gygax derived its initial rule system by combining rules from his own miniature wargame, *Chainmail* and Arneson's *Blackmoor*. Ultimately, this meant that the gameplay was quite complex, with the need of various different dice ranging from 4-sided to 20-sided (examples seen in Fig. 6), and many rules that were more common in miniature wargames. Because of this,

there were many who felt the game was too unapproachable, with all the preparation it required, or too inaccessible with its complex rule set.

One such a person was Ken St. Andre, who liked the idea of fantasy role-playing games but found *D&D*'s rules to be overly complex as he jokingly told The Real John Wick (2010). Only a year after *D&D*'s release, he was ready to release his own, more accessible version, *Tunnels & Trolls (T&T)*. The rules for it are much simpler and it only uses 6-sided dice. The simpler rule set also made it easier to write solo adventures, or *solitaire adventures*, which were meant to be played alone without the need for a game master. The first one to be released for *T&T* was *Buffalo Castle*, written by Rick Loomis in 1976 (Fig. 7). It also worked as an introductory book to the game, offering a beginner dungeon to players and showing them how the game would be played.

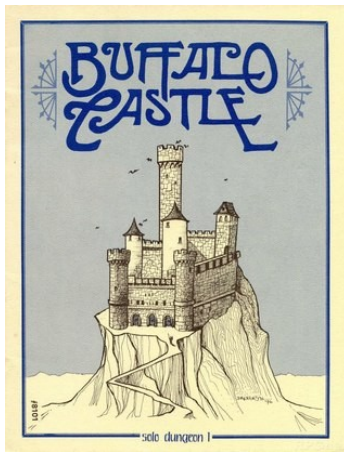


Figure 7. The original cover page of *Buffalo Castle*. (from Demian's Gamebook Web Page)

One could think of the solitaire adventures as an expansion to the existing game as they share the same rules and the books offer a story set in the same world for readers to play through. The actual gameplay is very similar to the branching path gamebooks. With added die rolls and character attributes, introducing luck and limitation to the simple decision making, along with various other rules also having an effect.

With the simpler *T&T* working as a basis for solitaire adventures, gamebooks kept evolving. In the early 1980s, British authors Steve Jackson and Ian Livingstone created a new gamebook series, *Fighting Fantasy* (Fig. 8) Unlike the solitaire adventures paired with *T&T*, the *Fighting Fantasy* novels did not require an outside game system. Instead the rules were included in the novels themselves, making them even more accessible than their *T&T* counterparts. For this reason, many consider the *Fighting Fantasy* series to be the first "true" gamebooks.

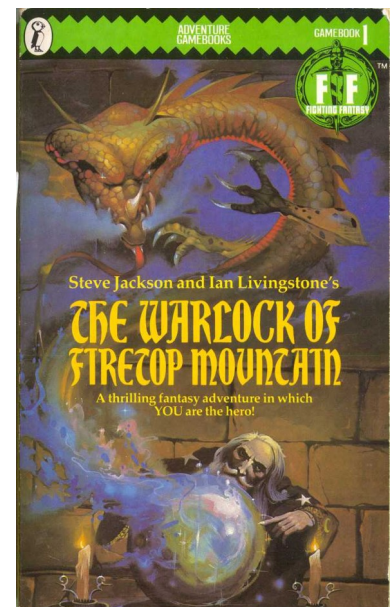


Figure 8. The cover page of *The Warlock of Firetop Mountain* (1982), the first book in the *Fighting Fantasy* series. (from Demian's Gamebook Web page)

3 The rise of digital adventurers

While the development and evolution of gamebooks and adventure novels went on, digital adventure games were also born roughly at the same time. In the 1960s and 1970s, as computers were starting to become more common, ‘Computer Sciences’ started to take off as an academic field as well. While the first study program dates back to 1953 in University of Cambridge (Sparck, 2001), in the United States and in more and more countries they started appearing at the end of the 1960s and early 1970s (Zink, 2002). Even before then, however, a big topic of research was natural language processing, which would enable computers and programs to understand and react to human language. The research was kickstarted by Alan Turing and his *Computer Machinery and Intelligence* (1950) article on artificial intelligence. Some of the first notable language processing programs were *ELIZA* (1964-66), which simulated a psychotherapist and aimed to provide human-like responses to user-input (Weizenbaum, 1966), and *SHRDLU* (1968-70), developed by Winograd (1971), which had users interacting with a being in another, far simpler, world. The main commands that *SHRDLU* acted on were basically just for moving objects in its own world.

While the natural language processing programs of the time seemed quite simple, it still gave rise to a vast amount of ideas and possibilities for fellow programmers, researchers and students and teachers of computer sciences. One such a person was Peter Langston who, in 1974, wrote, what is possibly the first, text-adventure game, *Wander*. (de Klerk, 2015; Tanbusch, 2015; Ant, 2015) While *Wander* was actually built to be more like an authoring software that anyone could use to write their own stories (see Fig. 9), it featured a prewritten story, titled *a3*. In the story, the player takes the role of a First Under-secretary to the Ambassador for Corps Diplomatique Terrestrienne, with a mission to stop an uprising in a country and/or planet called Aldebaran III (Ant, 2015). Gameplay functions

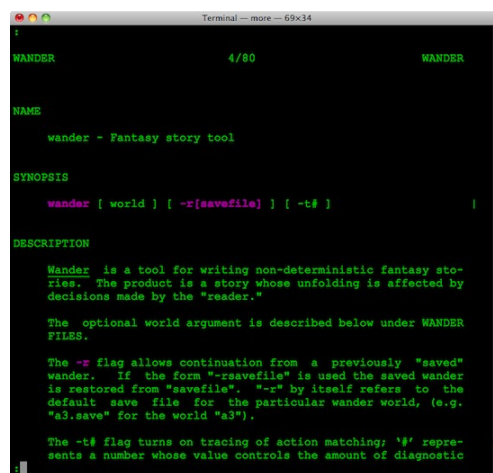
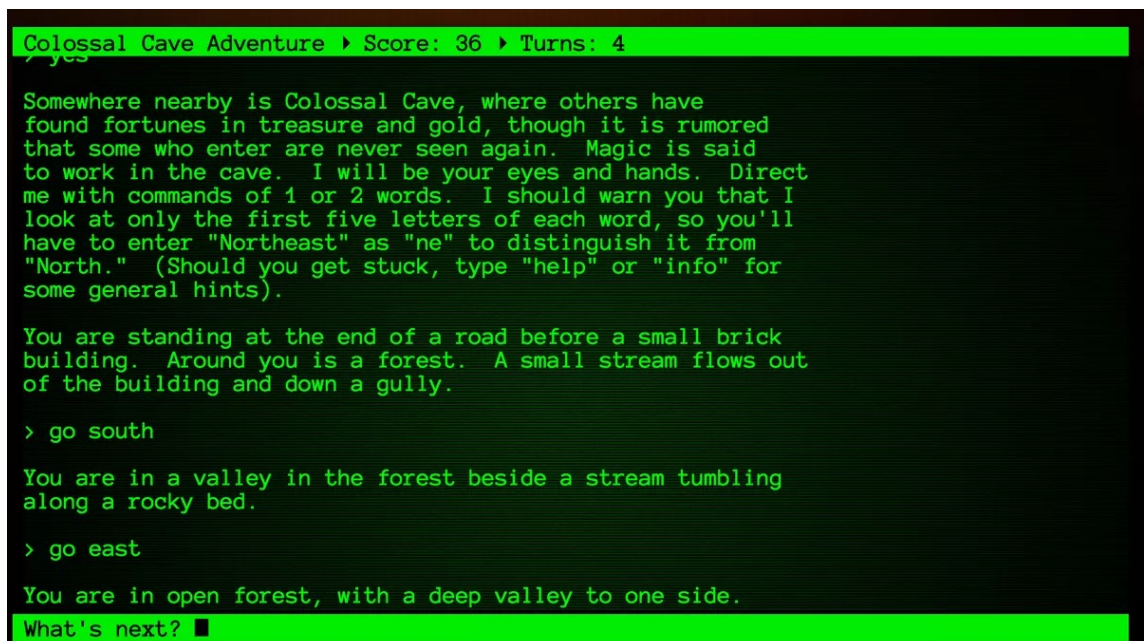


Figure 9. A screenshot of Peter Langston's *Wander* running on a modern computer (Jerz, 2015)

much like any language processor of the time, with the player writing what they want to do and the game doing just that, should it recognize the command.

Another like-minded soul was William Crowther, who, around 1975, programmed an interactive adventure for PDP-10 originally by the name of *Adventure*, later renamed *Colossal Cave Adventure* (Fig. 10). As one of his hobbies, Crowther liked to go cave adventuring and one of the caves he frequented was the Mammoth Cave in Kentucky. Crowther decided to use a part of the Mammoth Cave as the basis for his adventure and also added some fantasy elements from *D&D* to make it a bit more interesting as Dennis (2007) finds out for himself. In 1977, a Stanford University graduate Don Woods discovered the game and with permission from Crowther made some changes to it and expanded it by adding various high-fantasy elements inspired by writings of J.R.R. Tolkien, such as trolls and elves. *Adventure* was then spread within the ARPAnet where it became widely popular and inspired several up-and-coming game developers to make something similar themselves.



```
Colossal Cave Adventure ▶ Score: 36 ▶ Turns: 4

Somewhere nearby is Colossal Cave, where others have
found fortunes in treasure and gold, though it is rumored
that some who enter are never seen again. Magic is said
to work in the cave. I will be your eyes and hands. Direct
me with commands of 1 or 2 words. I should warn you that I
look at only the first five letters of each word, so you'll
have to enter "Northeast" as "ne" to distinguish it from
"North." (Should you get stuck, type "help" or "info" for
some general hints).

You are standing at the end of a road before a small brick
building. Around you is a forest. A small stream flows out
of the building and down a gully.

> go south

You are in a valley in the forest beside a stream tumbling
along a rocky bed.

> go east

You are in open forest, with a deep valley to one side.
What's next? █
```

Figure 10. A screenshot from *Colossal Cave Adventure*

While not the first, *Colossal Cave Adventure* is, arguably, the most famous of the early text-based interactive adventure games (Heron, 2016), possibly due to *Wander* being considered a lost game as the mainframe computers it ran on were discontinued and no backup copies were thought to exist. The object of *Colossal Cave Adventure*, is to collect a bunch of random treasures from the cave, without any real motive behind

doing so other than a vague notion of getting the max score. Which differs quite widely from the more story-based *Wander*.

During the late 1970s, Dave Lebling, much like every other student at MIT, was thoroughly enjoying *Colossal Cave Adventure* as it was spread around the campus through the ARPAnet. He mentioned to Granade and Jong (2001) that at the time he was very into *D&D* and was thinking about writing scenarios for it. That and the fact he had already written many games, meant he was “primed” for writing interactive fiction. According to Dyer (1984), Lebling also felt that *Colossal Cave Adventure* could be improved and expanded, which served as another reason for starting to write something similar, so he formed a group with a few other programmers and started writing their own adventure game. Their game was named *Zork* (Fig. 11), a word often used by MIT hackers used to mean unfinished programs, as Lebling tells Granade and Jong (2001) and was later released commercially under company name Infocom. In scale, *Zork* would be much larger than *Colossal Cave Adventure*, and would also contain a story all its own. The game would become so big, in fact, that it had to be cut into into two parts, where the second half would again be cut in two to make for a trilogy of games. While the

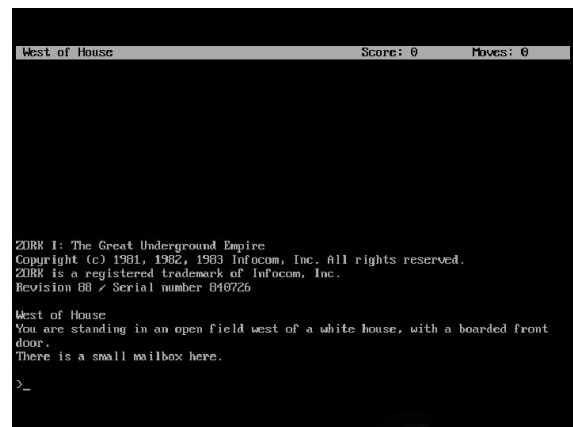


Figure 11. A screenshot from *Zork I*.

story still is largely based around hunting for treasure, there is an implicit reason for doing so, from aiming to become the Dungeon Master to stopping an evil wizard. While the story is crude, this could still be considered as the first digital interactive novel.

3.1 Graphical adventures

As technology kept rapidly evolving, it did not take long for text-adventure games to turn to graphical interfaces, providing pictures to go with the descriptions. Possibly the first of these graphical adventure games was *Mystery House*, written and illustrated by Roberta Williams and programmed by her husband, Ken Williams. Williams says, in his wife’s anthology, that they were both, but especially his wife,

hooked on *Colossal Cave Adventure*, at the time. And that they were both disappointed by the fact that there really were no other games like it until another couple, Scott and Alexis Adams started releasing their own adventure games. As they were playing and enjoying them, Williams remembers Roberta wondering if they would be better if they had visuals to go along with the text. Thus, the idea for *Mystery House* started, which they released as On-Line Systems (modernly Sierra Entertainment) in 1980. The plot of the novel is about a group of people getting locked in a vacation house followed by a series mysterious murders around the house. It is up to the player to find the murderer. The novel is largely considered to be the first graphical adventure novel and is also one of the first horror games. *Mystery House* was followed by many other adventure games released by On-Line Systems. All of their early games were branded as part of the *Hi-Res Adventure* series, which included *Mystery House*, *The Wizard and the Princess* and *Mission Asteroid* as its first entries in 1980.



Figure 12. A screenshot from *Mystery House*.

These graphical adventure games were, in essence, just like text-adventure games, but with illustrations added in (Fig. 12). This also started the evolution of interactive stories in video games, which started to become more and more fleshed out as opposed to the crude

bare bones plots most games had at the time. It was not long until developers started taking the graphics technology to new heights.

In 1983, Japanese game developer T&E Soft, released *Star Arthur Densetsu I: Wakusei Mephius* (translated: *Star Arthur Legend I: Planet Mephius*) for Fujitsu Micro 7 computer, the first game in the *Star Arthur Densetsu* series. The game was much like many other graphical adventure games of the time, with one big difference: the player would occasionally have to use the arrow keys to move a cursor on screen and aim it at objects on the displayed graphics (see Fig. 13) (Kitamura, 2003). This would be the first time such a mechanic was implemented in a game, essentially pioneering the point-and-

click adventure genre. The plot of the first game revolves around Star Arthur and his search for the legendary energy sword on Planet Mephius, while the war between the Galactic Federation and Jyamil empire rages on.



Figure 13. A screenshot from *Star Arthur Densetsu* showing the primitive point-and-click interface (the cursor is on the door).

Another influential game released in the same year by Enix, was *Portopia Renzoku Satsujin Jiken* (trans. *The Portopia Serial Murder Case*). The game was originally developed for the PC-6001 by the game company, Chunsoft and was designed by Yuji Horii. The game tells the story of a detective trying to solve the death of a bank company president, which initially seems like a suicide. Horii arrived at the idea after reading about American text adventure games in a magazine, a genre that did not exist in Japan at the time (Szczepaniak, 2011). His original idea was to make a game where the player could converse with the computer in real time (an AI), but found that to be impossible with the technology of the time, so instead he wrote some dialogue options for the computer to choose from based on player input. He then expanded this idea into a mystery game with multiple endings that were decided by the player's actions. The PC-6001 version of the game featured a text parser, similar to text adventure games, but that was stripped away in the Famicom port (1985) in favor of command system (see Fig. 13), which Horii thought was friendlier than the text parser (BEEP 1987). The command system, features a list of predetermined commands from which the player

chooses an action (usual options include “talk”, “examine”, “pick up”, and “move”). One of the commands in the port allowed players to use a point-and-click mechanic, similar to the one featured in *Star Arthur Densetsu*, which allowed players to examine the environment or hit and punch stuff or suspects during interrogations. *Portopia Renzoku Satsujin Jiken* is often cited as one of the most influential games in Japan, with its multiple endings and command system, and is credited as defining adventure games and visual novels (we will talk more about visual novels in-depth in Chapter 5).



Figure 15. A screenshot from *Portopia Renzoku Satsujin Jiken* on the PC-6001 (left), with the text-parser, and on the Famicom (right), where the commands are listed on the right side corner of the screen.

Unfortunately, neither of the two games were released outside of Japan, which meant the western audiences would need to wait a whole year or two before they would be introduced to the point-and-click adventure genre, not to mention adventure games featuring multiple endings.

3.2 Point-and-click Uis

1984 saw the release of the Apple Macintosh (modernly known as Macintosh 128K), which among other things popularized mouse-based graphical user interfaces and mice in general. Western developers immediately took advantage of this and adventure games started to head to a new direction. Among the first was *Enchanted Scepters* (Fig. 16) released sometime between 1984 and 1986 (the exact release date differs depending on source, but the copyright for the game is dated 1984) by Silicon

Beach Software. In the game, players play as Saber an apprentice wizard, who is sent on a quest recover his master's four elemental sceptres. Similarly to *Star Arthur Densetsu*, *Enchanted Scepters* also combined primitive point-and-click mechanics with a text parser to move the game, except instead of using arrow keys to move the cursor, the cursor was instead moved with Macintosh's mouse (Macintosh's keyboard lacked arrow keys).

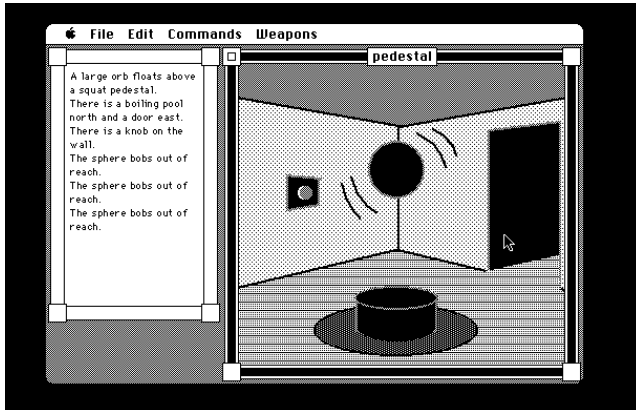


Figure 16. A screenshot from *Enchanted Scepters*.

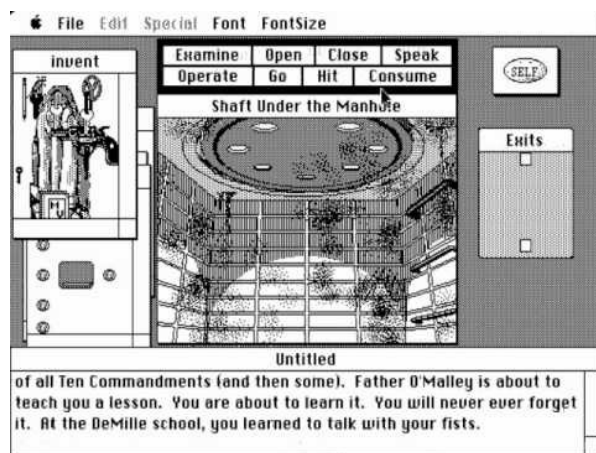


Figure 17. A screenshot from *Déjà Vu: A Nightmare Comes True!!*

ICOM Simulations' *MacVentures* series started in 1985, and is one of the earliest game series to deal away with the text parser in favor of a fully mouse-operated interface. The first game in the series was *Déjà Vu: A Nightmare Comes True!!* (Fig. 17), which is set in the 1940s and is played from the perspective of a private eye being framed for murder.

The adventure genre kept evolving, taking inspiration from their predecessor's and using the ever advancing technology to do what their predecessors could not. An example of this is Hideo Kojima's *Snatcher*, released in 1988. At its core, it is similar to *Portopia Renzoku Satsujin Jiken*, featuring its console exclusive command-based interface (Fig. 18a) with occasional point-and-click style shooting minigames where the player aims the cursor (in this case, the crosshair) on a 3x3 grid at hostile enemies in an

effort to shoot them before they get the player (Fig. 18b). On the story side, *Snatcher* is about Gillian Seeds, an detective who is put on a case to find some escaped snatchers, human-like androids who can mimic humans, take on their appearance and replace them after killing the original. The story is set in a cyberpunk world, inspired by movies such as 1982's *Blade Runner* and 1984's *Terminator*. Generally, *Snatcher* is complimented across the board and often called one of the best adventure games of all time. (Gus, Steve, 1995; Retro Gamer Team, 2008; Plunkett, 2011; Tieryas, 2017)



Figure 18a. A screenshot from *Snatcher*, showing its command interface.



Figure 18b. A screenshot from *Snatcher*, showing its shooting minigame.

Of similar fame, another example is Lucasfilms' 1990 adventure game, *The Secret of Monkey Island*.

Unlike its Japanese cousin, *The Secret of Monkey Island*, focused more on the point-and-click interface, forcing the player to use it almost exclusively from moving the character to picking choices (see Fig. 19). The story takes place on two islands, Mêleé Island



Figure 19. A screenshot from *The Secret of Money Island*.

and, the namesake, Monkey Island as the player guides a young wannabe pirate, Guybrush Threepwood on a quest to become a pirate and save his new beloved. The game much like *Snatcher* enjoys generally, overwhelmingly, positive reviews and

opinions, for its puzzles, its funny and witty dialogue as well as its visuals and is often cited as one the best games of all time. (Hatfield, 2012; BradNicholson, 2009; Fulton, 2015; Whitehead, 2009; Kleinberg, 2009)

It is also important to note, that the games mentioned in this chapter (excluding the text-adventure games), can be, have been and are categorized into various different genres depending on who is the one doing the categorization, with western audiences and Japanese audiences also adding a cultural difference to the classification of each title. Retrospective recategorization does not help the matter either. The main reason for this is most likely the fact that the 1980s was a decade of constant technological upgrades and game genres kept constantly evolving because of it. Text-adventures evolved to include graphics to create graphical adventure games, which evolved to remove text parsers in favor of either command based input and mouse-driven point-and-click input, which also gave birth to several hybrids that featured both. This makes accurate categorization, both during the decade as well as from there on, quite difficult. For this reason, the games mentioned in this chapter (excluding text-adventure games) and other similar games following to design path started by text-adventure games, are generally referred to by their umbrella term, *interactive adventure games*.

4 Experimental gardens and hypertext

Before the rise of the digital era, in 1941, a writer and poet, by the name Jorge Luis Borges, wrote a short story titled *The Garden of the Forking Paths* (Fig. 20). The story features a Chinese professor, Yu Tsun, working as a spy for Germany during the first world war. In order to reveal the location of a British artillery park, he visits a doctor of Chinese studies, Doctor Stephen Albert. They discuss Tsun's ancestor Ts'ui Pên, who, in his lifetime, sought to write a vast and intricate novel and build just as vast and intricate a labyrinth. However, he was killed before he could finish either, and supposedly only left behind a 'contradictory jumble of irresolute drafts' of a novel. Albert reveals to Tsun that he found that the labyrinth was actually the novel – a novel where all possible causal outcomes exist simultaneously – and as such the novel would trap all their readers in the infinite 'garden of forking paths'.



Figure 20. The cover of *The Garden of the Forking Paths*. (from [wikipedia.org](https://en.wikipedia.org/wiki/The_Garden_of_the_Forking_Paths))

According to Moran (2012), Borges' story perfectly describes the many worlds theory in quantum mechanics way before the actual theory was invented by mathematician Hugh Everett in 1957. The story was not only for physicists and mathematicians, but, as Wardrip-Fruin and Montfort (2003) explain, was a huge influence on literature, specifically for the birth of hypertext literature. The idea that there could be a story or a system similar to the maze by Ts'ui Pên, where one could have an infinite possible ways to read a story by exploring the various paths in the garden of possibilities. It was not until 1960s that such a system started to become a reality, as Ted Nelson enticed Andries van Dam to aid in the development of the Hypertext Editing System (HES), which allowed linking separate texts to together non-sequentially. Later, after witnessing Douglas Engelbart's "Mother of All Demos" on NLS, they collaborated with Engelbart to incorporate ideas from his NLS ("oN-Line System"), with Nelson's and van Dam's HES to develop the File Retrieval and Editing SyStem (FRESS) in 1968. (Barnet, 2010)

Following the invention and popularization of this new *hypertext*, Jay David Bolter, John B. Smith, and Michael Joyce went on to develop their own system for it in 1980s, focusing more on writing stories with it rather than just organizing information. They named the system, Storyspace, originally developed for the Apple Macintosh. (Bolter & Joyce, 1987). The first story written with the system, released in 1991, was Joyce's own *afternoon, a story* (Fig. 21), which is also, coincidentally, the top contender for the first accepted piece of 'hypertext fiction', or 'hyperfiction' (Snyder, 1997). The story revolves around a father trying to find out what happened to his son. Any clearer description of a plot is impossible, as it changes with every reading, not to mention the paragraphs of text are presented in a non-linear order almost unrelated to one another, making it quite impossible to form a coherent plot.

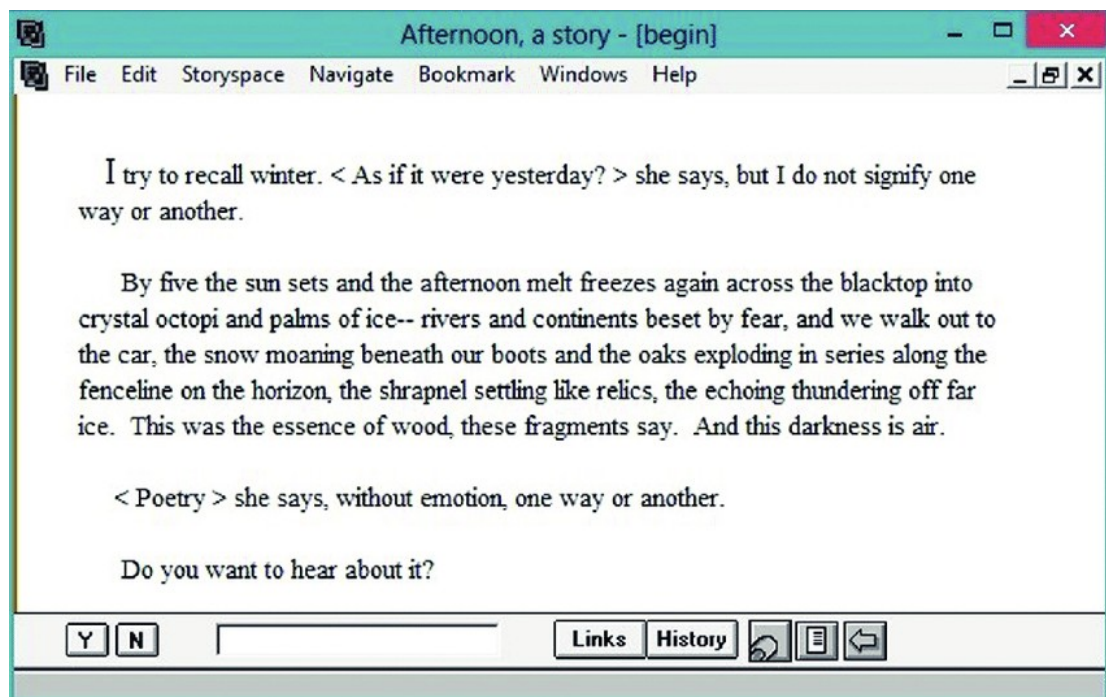


Figure 21. A screenshot from *afternoon, a story*.

The way *afternoon, a story* (or really any piece of hyperfiction) works is it gives the reader a paragraph of text with some hyperlinks to other paragraphs, and by following these paragraphs the story moves. However, unlike in a traditional story, the hyperfiction story does not really have an ending or real plot progression. "When the story no longer progresses, or when it cycles, or when you tire of the paths, the experience of reading it ends" is how Joyce describes the ending of a hyperfiction story, meaning there is no real end or 'closure' in the story, it simply ends when the reader ends it as Snyder (1997) explains.

5 Less gameplay, more story

Interactive adventure games were gaining ground, especially in Japan, with games like *Portopia Renzoku Satsujin Jiken* and *Snatcher*, and several others. The role-playing game genre was also in full bloom with influential titles such as *Final Fantasy* (developed by Square) and *Dragon Quest* (developed by Chunsoft). Yuji Horii, the designer of *Portopia Renzoku Satsujin Jiken* was the lead designer of *Dragon Quest* (Fig. 22) as well and was joined by the programmer, Koichi Nakamura, in the development of the first three *Dragon Quest* games. Nakamura had entered the gaming industry as a student and was very excited when the first *Dragon Quest* game was released with his name in the credits. He tells Parish (2017) that he introduced the game to his girlfriend at the time, but was somewhat disappointed that she was not as excited about it. Simply put, she was not a gamer, and did not understand the game, what made it fun or even what you were supposed to do in it. So he started thinking about making a game that anyone, even people who have never played games could play. At first he thought of text-adventure games, but came to the conclusion that even they might still be too hard. Next, he thought of the games with command-type interfaces but came to the conclusion that even they could be too hard. He wanted to simplify even further, arriving at the idea, popularized by the *Choose Your Own Adventure* books, a simple decision based system, where the player would read a story, that would occasionally have decision points, in which the player would choose either A, B, or C and the story would move in the direction of the chosen



Figure 22. A screenshot from the first *Dragon Quest* game

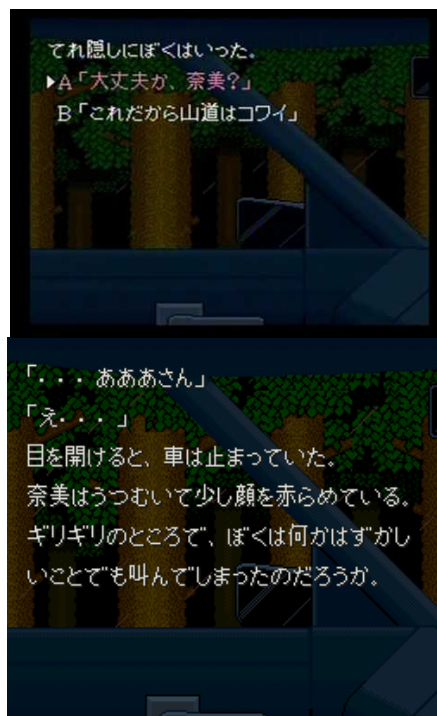


Figure 23. Screenshots from *Otogirisou*.

option (Fig. 23) (Parish, 2018) He proposed the idea as a ‘sound novel’, a digital novel, that would be accompanied by backgrounds, music and sound effects. The first sound novel, released in 1992, was titled *Otogirisou*. It was inspired by Capcom’s horror game, *Sweet Home*, and featured 20 background images and a few sound effects and music pieces to enhance the scary mood of the game. (Parish, 2018) The story is that of a young couple stranded in an abandoned old mansion, only to find out they might not be alone after all. The reader is presented choices every now and then that direct the story in different paths. It was moderately successful, which gave Chunsoft good reason to make another. Two years later, in 1994, Chunsoft released an indirect sequel, titled *Kamaitachi no Yoru* (Fig. 24). The sequel’s story is about a couple, who get stranded in a skiing lodge and find themselves tangled in a murder mystery. This time, wrong decisions might lead to more deaths.

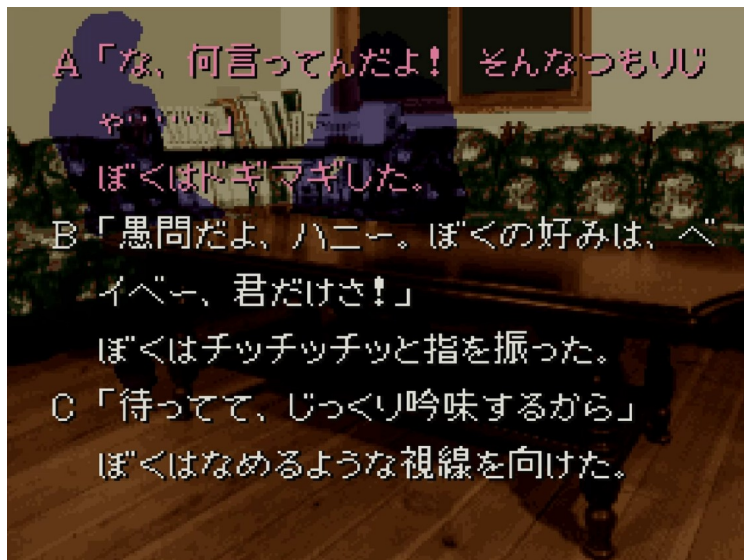


Figure 24. A screenshot from *Kamaitachi no Yoru*.

Not long after, another Japanese developer, Leaf, joined the fray with their *Visual Novel Series* of games that included the titles *Shizuku*, *Kizurato* (both released in 1996) and *ToHeart* (1997). In addition to everything Chunsoft’s sound novels had, the visual novels also added character sprites to portray characters on screen as seen in many interactive adventure games (see Fig. 25).



Figure 25. A screenshot from Shizuku.

The sound novels featured a fullscreen textbox layed on top of the art assets that function as a background, thus establishing a more novel-like experience (just as you would get with reading a book). After Leaf added sprites to their visual novels, many other developers continued from there and started putting more and more effort into the art and sprites. The main sources of inspiration for the user interfaces were interactive adventure games and erotic games (or *eroge*). This resulted in the textbox being put to the bottom of the screen (taking around 1/3 of the screen) with the visuals (backgrounds and character sprites) now having the majority of the screen for themselves. Adventure games used this style to give players a clear view of their environment so it would be easier to tell what to do next, while *eroge* used this style

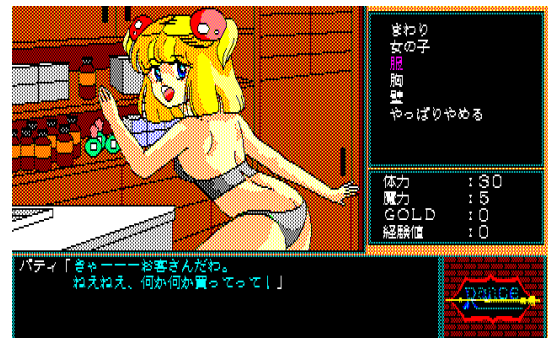


Figure 25. A screenshot from Rance - Hikari o Motomete (1989), an erotic adventure game, showing one of its event CGs.

to better display the character sprites and, what are known as, *event CGs* (Computer Graphic) without having the text come in the way (see Fig. 25). Event CGs are special fullscreen illustrations featured in many Japanese games that feature visual novel or interactive adventure game elements. They work similarly to pre-rendered cutscenes in video games (except that they are still images). Event CGs originate from *eroge*, where they are mostly used to display erotic scenes in more detail, saving the player from having to imagine everything. They often serve as a reward for “conquering” one of the heroes or heroines of the game. Type-Moon’s *Fate/Stay Night* (2004) and VisualArt’s

Key's *Clannad* (2004), provide great examples of how event CGs can be used both for erotic content as well as powerful story scenes (see Figures 26 and 27).



Figure 26. An event CG from *Clannad*, used in a powerful story scene.



Figure 27. Two event CGs from *Fate/Stay Night*, showing their use in both erotic and dramatic context.

Even with their simple production style visual novels became quite popular, they sold well enough to warrant a wider production of similar software and give birth to an entire genre. This effect can be attributed to a specific group of people, fans of animation (known as *anime* in Japan), comics (known as *manga* in Japan) and video games, also more commonly known as *anime otakus* (or just *otakus* in the west). The term “otaku” is generally used mockingly or

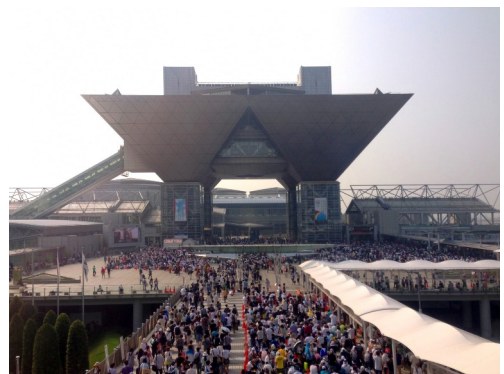


Figure 28. A photo of Tokyo Big Sight exhibition center during Comic Market. (Sirmans, 2019)

insultingly in Japan, like the words “nerd” and “geek” are in the west. While the usage of these terms are getting much friendlier they still have quite a large negative connotation with anyone outside of the “nerd/otaku” community. Which is one of the reasons behind the inauguration of a convention made specifically for these fans. In 1975, a group of fans, calling themselves Meikyu, founded a convention for fans by fans, where everyone could share their love for various comics, animation, named *Comic Market*, or *Comiket* (Fig. 28) (Noppe, 2014). Before explaining why Comiket and these “otakus” are so important for the popularity and evolution of visual novels, it is important to understand the differences between eastern and western copyright laws.

The copyright laws in western countries usually allows the production of fan goods such as written fanfiction, fanart, cosplay and other items. However, the copyright laws ban the selling of such products which, at best, result in hefty fines and, at worst, in serious jail time. In Japan, the copyright laws are much more lax. Not just do they allow selling fan goods, but most of the comic and animation industry even encourage this. This is one of the main reasons for Comiket, to allow fans of animation, comics and games to come together, showcase and exchange all sorts of fan products that they have created. Many of the products are often created by university hobby groups, known as *dōjin circles*. These products range from books, comics, and artwork to music, costumes, items and games. Most of which are fan creations of existing works, while only some are original. Japanese copyright laws allow for fans to make a living by selling fan goods, thus making it a worthwhile investment of time. Many of these *dōjin circles* even end up going professional after enough recognition. While fan works, for most, live in the infamy of being all about porn, this is not entirely the case. Comiket does feature a lot of pornographic works, yes, but that is definitely not all of it.

While the event was originally designed around physical merchandise, video games also started to make their appearance once home consoles and computers became more popular, and allowed for easier distribution of software. Games on their dawn were largely considered to be inaccessible for anyone else but the most devoted in computer sciences and engineering, so most kept their hands off, just marveling at the results created by these professionals. However, in the wake of sound novels, people, and especially devoted fans, came to realize that maybe making games or interactive stories is not so hard after all. And in the following years, more and more hobbyists and circles started making their own creations, known as *dōjin soft* (Griffin, 2020). Some

focused on making fangames, or *fandiscs* as they came to be called, while others sought to make original games. The spread and rising interest in amateur visual novels and *dōjin soft*, and, the competition it started with professional developers kickstarted the popularity of visual novels in Japan (Sorlie, 2012). Many of the hobby groups who started by making visual novels for the Comiket in the beginning, have since become big names in the industry. Some examples would include 07th Expansion, whose first visual novel, *Higurashi No Naku Koro ni* (2002), has received several adaptations as animation series, novels, and manga, and Type-Moon, who started off with an adult visual novel, *Tsukihime* (2000) (see Fig. 29) and with its success went on to develop *Fate/Stay Night* (2004), which has been adapted into various animation series and movies, video games, novels and manga. Many groups following their examples are rising to the scene almost every year.



Figure 29. A screenshot from *Higurashi no Naku Koro ni* (left) and *Tsukihime* (right).

6 History in retrospect and the world today

By the turn of the millenium, a lot of things had changed in just the past century and the newly born interactive literature had also been through a lot. Starting from simple gamebooks, which introduced a simple way to get the readers to interact with a story, by allowing them to make choices. The simple multiple choice decisions would affect the direction of the story allowing for multiple stories to unfold in a single book. It started as an experiment and a novelty, gamebooks eventually got their own place in literature with the *Choose Your Own Adventure* series becoming popular with children, while *Fighting Fantasy* secured a place with more mature readers, namely fans of TTRPGs.

In the 1980s and 1990s, however, while decently popular, gamebooks started seeing dwindling sales and eventually vanishing from the markets altogether. The downfall of gamebooks happened during the latter half of the 1990s, and while the general consensus seems to be that this was due to video games, it might not be quite that simple as Gideon (2021) explains. As it turns out, in fact, both gamebook and video game sales were connected, when one went up so did the other, and when one went down so did the other as shown by Gideon. The most notable crash in sales happened during the 1990s, partly due to severe recession in many western countries. Another important factor to consider is that, as Gideon puts it, “the books were treated as mass-market commodities, rather than high-value niche products.” Essentially meaning that gamebooks were being published in bulk, without much thought being put into their writing and development. Gideon also feels it worth mentioning that the 1990s saw the appearance of several collectable card games, such as Magic the Gathering and Pokémon, which Gideon thinks took a fair share of gamebooks’ sales, helping them reach their demise in the western market. (Gideon, 2021)

In the Japanese market, the 1990s marks the time when sound novels and visual novels were born as discussed in the previous chapter. Sound novels and visual novels are in essence just digital gamebooks, which makes it easy to assume that the printed gamebooks would fall from popularity in Japan as their digital equivalent began to rise.

Currently gamebooks, such as *Fighting Fantasy* are enjoyed mostly by fans of TTRPGs, with the more child friendly *Choose Your Own Adventure* series, and many others like it, having disappeared almost completely during the 1990s. Gamebooks do have a dedicated cult following, which both consumes and develops new gamebooks, and with the increasing popularity of TTRPGs, gamebooks might also experience a rise in popularity. The latest title published in the *Fighting Fantasy* series (as of writing) was *Crystal of Storms* (2020), which is also the first in the series written by a female author, Rhianna Pratchett (Fig 30).

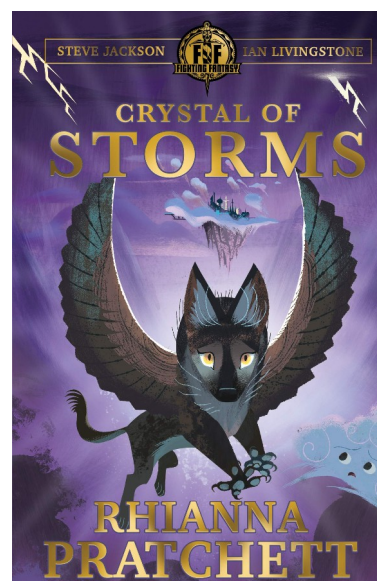


Figure 30. The cover of *Crystal of Storms*. (from Amazon.com)

6.1 From paper to bytes

Sharing the fate of gamebooks are text-adventure games, which were born around the same time gamebooks started to get their wind. Text-adventure games, however, lived a much shorter life in the eyes of the mainstream audience, largely disappearing during the first half of the 1980s. They introduced language processing that, at least in theory, allowed players to try and progress through the game however they wanted. This showed players that there one day could be a game that would give players the complete freedom to play and act as they chose within the world of the game and interact with the story as they wanted. The rise of graphical user interfaces and

point-and-click mechanics, however, overshadowed the strictly text based games and eventually buried them from the eyes of the mainstream audience.

Text-adventure games still have a their cult following, and are quite popular within independent (often shortened *indie*) game developers and fans, with a lot of researchers within interactive fiction and natural language processing fields also sharing interest in the genre. Thanks to advances in AI, and the popularity of procedurally generated content, text-adventure genre is getting some new wind with games like *AI Dungeon* (2019) (Fig. 31), taking advantage of these features and pulling in some new players to the genre. According to the team behind *AI Dungeon*, Latitude Team (2020), the game passed a million users in 2020.

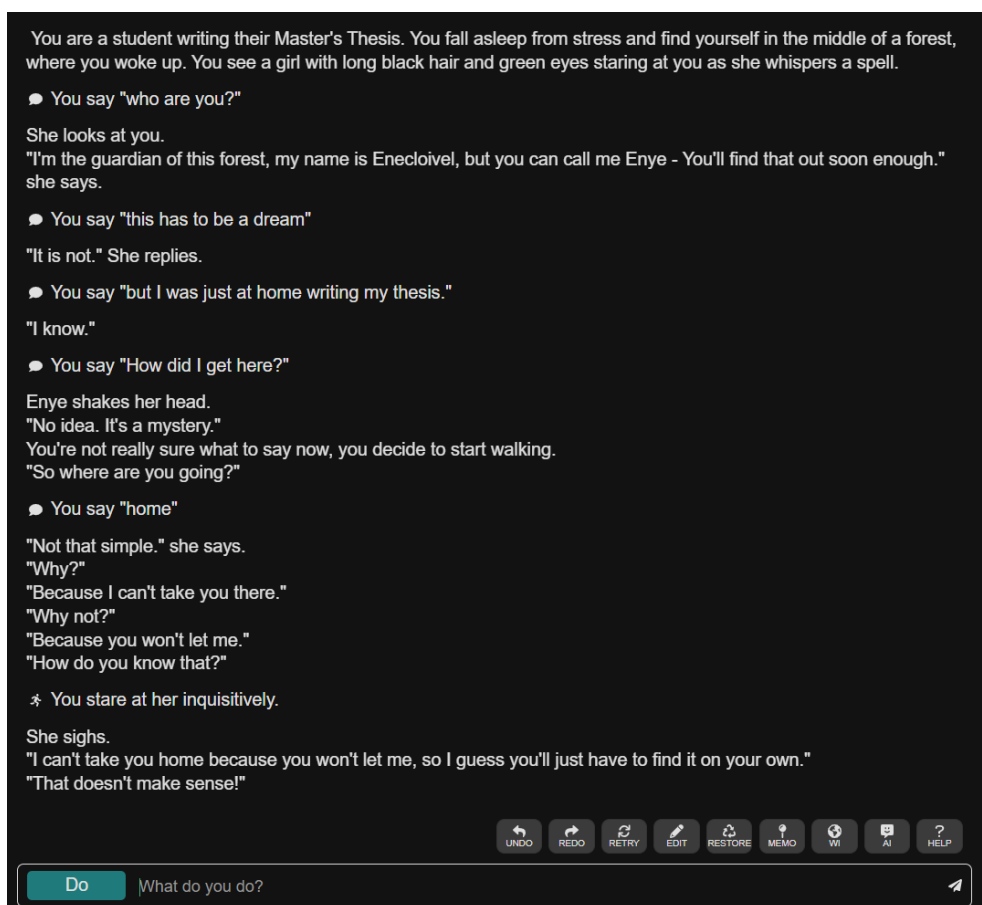


Figure 31. A screenshot from a custom adventure in *AI Dungeon*.

A direct descendant of text adventure games, interactive adventure games could also have shared the fate of their predecessor, but being in a state of constant evolution the interactive adventure genre has kept its popularity with some new features and popular new series entering the scene over the years. As Sorlie (2012) reveals, one of

the most influential interactive adventure games coming after *Snatcher*, in the year 1996, was a game called *Kono Yo no Hate de Koi o Utau Shōjo YU-NO* (eng. *YU-NO: A Girl Who Chants Love at the Bound of this World*) which featured impressive music, and artwork just like *Snatcher*, but with a much more intricate story, which has the player jumping through time and parallel worlds, exploring various character centered routes that eventually connect into a bigger story, and a *true end* for game (see Fig. 32). Sorlie points out that it was because of *YU-NO* that game companies at the time started putting more stock in young up-and-coming developers and artists, which, essentially, ushered in the current forms of the interactive adventure and visual novel industries in Japan.



Figure 32. Screenshots of some of the heroines the player can choose to go after in *Kono Yo no Hate de Koi o Utau Shōjo YU-NO*. Specifically, Eriko Takeda (top left), Kanna Hatano (top right), Mio Shimazu (bottom left), Ayumi Arima (bottom right).

The new direction in the industry resulted in many, now popular, series being born, that saved the genre from disappearing before the new millennium. One these series is *Gyakuten Saiban* (eng. *Phoenix Wright: Ace Attorney*), which started in 2001 and has since achieved a mainstream following, with various installments and adaptations to other formats being constantly developed, such as a live-action film in 2012, an animation series in 2016 (with a second season in 2018), and various plays and

musicals being created from 2009 onwards (see Fig. 34). Another popular series *Dangan Ronpa* (written *Danganronpa* in the west) started in 2010 and has seen a similar amount popularity and adaptations as *Gyakuten Saiban*, however, due to its intense horror setting, its popularity remains more on the niche side (Fig. 33).



Figure 33. A screenshot from *Dangan Ronpa*.



Figure 34. Screenshots from various *Gyakuten Saiban* adaptations. The game (top left), anime (top middle), live-action movie (top right), stage play (bottom left), and all-female musical (bottom right).

In the field of computer science nothing showed as much promise as hypertext and naturally many in the field also saw it as something that would revolutionize literature as a whole. Coover (1992) recounts many writers and developers, who he calls “champions”, of hypertext saying that “there have been three great events in the history of literacy: the invention of writing, the invention of movable type and the invention of hypertext.” Hyperfiction certainly did promise an infinite amount of stories in a single piece of literature. Readers would always be introduced to a new story upon starting to read the novel, at least in theory. This of course means that not just the readers, but the

writers as well would have to learn to think of stories non-linearly in order to allow for the generation of an infinite amount of storylines. Which in turn meant that hyperfiction pieces would ideally lack a beginning and an ending and, due to it, a sense of closure.

This could be one of the reasons, why hyperfiction fell to obscurity so soon after its inception. During the 1990s, there were quite a few hyperfiction novels written, and everyone in the field was almost certain that they would overtake traditional storytelling, but after 2001's *These Waves of Girls*, written by Caitlin Fisher, the production of hyperfiction came to halt and the format disappeared nigh completely. It is quite hard to pinpoint a specific reason for why that happened, but there are many theories, such as the confusing plot progression mentioned earlier or the unfriendly user interfaces. However, Johnson (2013) and Lafarge (2011) think that the key reason why hyperfiction met its untimely demise is not only because of the readers getting lost in these infinite gardens, but because of the writers building the gardens. They both agree that writing hyperfiction is considerably harder than writing traditional fiction. One is forced to reintroduce characters and concepts in every paragraph the reader can find them in, because there is no way to know when and if the player has previously been introduced to them, and, ideally, one would have to make all paragraphs connect and relate to every one of the paragraphs they can be accessed from. For this reason, Lafarge claims the format's failure is not because of the format of the story but because of the writers who were not quite skilled enough to carry the format, apart from a couple exceptions. Another reason for this might be the expensive platforms used to develop these hyperfiction novels, with the most popular one, Storyspace, costing over a hundred euros and offers no trials to test it out.

Hyperfiction novels fell by the wayside, with most of their reading and development being done by researchers within fields of interactive fiction, and only the most dedicated of fans. Or at least this is the case concerning traditional hyperfiction. The year 2009 would see the coming of the second generation of hypertext fiction, through a free and open source development platform, Twine. Twine is a tool created and maintained by fans and writers of hyperfiction for fans and writers of hyperfiction, which makes it approachable and easy to try out for any writer. According to Twine's own website, twinery.org, Twine has been used to create hundreds of works, but itch.io's Twine tag shows that there are almost 5000 works made with Twine (Fig. 35). This showcase for Twine's popularity is a clear sign that hyperfiction has all but faded from

popularity, and with the ever increasing indie developer scene, hyperfiction might just experience a new rise, becoming more popular than it ever was.

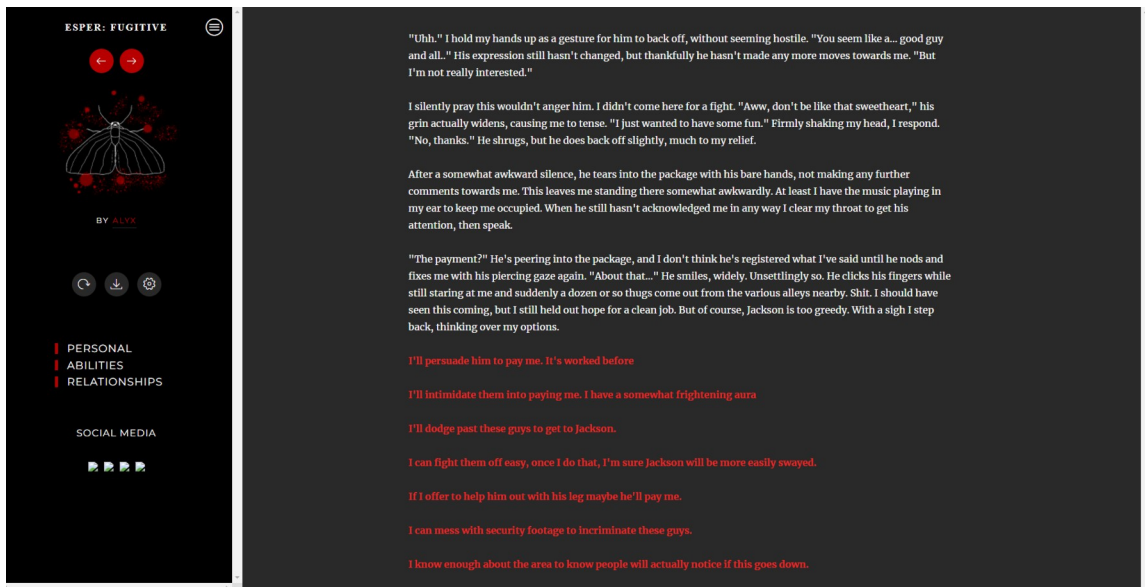


Figure 35. A screenshot from the demo of *Esper* (2022), an example of games in *itch.io* made with *Twine*.

6.2 For fans, by fans

And, seemingly, standing at the top of the interactive literature pyramid today are visual novels, whose popularity is quite undeniable. In 2006 it was estimated that nearly 70% of all PC games released in Japan were visual novels (Hirameki Group, 2006). One could have hardly expected it when the first ones were released, even in their country of origin. Visual novels expanded upon the concepts introduced by gamebooks and popularized a true branching route based storytelling, where, rather than aiming for a single solution to the game's problem, readers could branch the story into several different, often character specific, routes. This approach stems from dating sims and eroge, where the main goal is, usually, to pick one's favorite hero or heroine and date them.

Just so happens that the 1990s, the birth year of visual novels, also saw the beginning of a global anime boom. Shows like *Sailor Moon*, *Neon Genesis Evangelion*, *Cowboy Bebop*, *Pokémon* and *Digimon* became huge successes, not just in Japan, but in the west as well (Cooper, 2019). Due to which the 2000s became even more prolific in

offering anime themed produce to people, also marking the first ever anime film winning an Oscar, given to Studio Ghibli's *Sen to Chihiro no Kamikakushi* (engl. *Spirited Away*).



Figure 36. The cover picture of Finnish *Tanoshii Moomin Ikka* DVD collection (from CDON.fi)

At this time even a country like Finland, which seems to get its outside produce second-hand from bigger European countries was getting plenty of anime. Many Finnish TV channels were showing anime shows in the mornings for children and teens, among the many shows aired were *Sailor Moon*, *Dragon Ball Z*, *Fullmetal Alchemist*, *Pokemon* and *Digimon*. Not to mention the national hit from the 90s, *Tanoshii Moomin Ikka* (Fig. 35), which was the third anime adaptation based on the widely popular book series by Finnish-Swedish author Tove Jansson. The anime adaptation has been popular all across Finland ever since its

release. There were also some late night anime geared more towards adults, shows like *Neon Genesis Evangelion*. This boom in the west did much to aid in the popularization of visual novels outside of Japan, with many fans, old and new, were greedily trying to get their hands on anything Japan or anime related.

And while many popular manga and anime were translated and dubbed for the west, along with video games from big name companies, like Square and Nintendo, there remained a product that did not quite reach the west – the visual novel. In the 1990s it was still largely a product by hobbyists and fans, for hobbyists and fans, and remained niche even in the Japanese market. In the 2000s as many ex-hobby groups were able to become professionals and the visual novel market was able to grow beyond the hobby/fan market. However, they still did not reach the west, even as anime based on popular visual novels started coming out. This led to some fans joining the growing fan-translation scene, born to translate lesser known anime and video games, or fix badly translated or lacking official translations. The purpose for most was to bring knowledge of the media to the west in the hopes that more official translations would be brought to the market.

In the 2010s, fan-translations scene was active, producing translations to dozens of new visual novels a year, with many official translation companies also increasing their output. The most notable of these companies would be MangaGamer and JAST USA. As the official translations are increasing, the fan-translations are slowing down, due to many former fan-translators being hired by official companies. The trend continues even in the 2020s, as can be seen from the *Monthly Visual Novel Translation Status* updates on Fuwanovel. Fuwanovel is website that has worked to make visual novels more popular in the west since 2012, originally functioning as a hub for fan-translators and offering their patches for download (if they did not overlap with existing licensed translations). In 2015, however, all download links from site were removed, and the site took a strictly more informant role, offering news and updates on translations, as well as reviews, articles, etc. on visual novels in general.

Thanks to the effort of these fan-translators visual novels have managed to get a foothold in the western market, and has led to interest for many independent western developers due to their simplicity and availability for development on any budget. This has also led to the development of many visual novel game engines for the western developers, such as Ren'Py and Suika2, as well as the creation of templates for more general game engines, such as Unity and Unreal Engine. These engines and templates have since been used to create various visual novels, most of which are fully accessible in the west, with itchi.io alone housing more than 15 000 visual novels under its visual novel tag (as of writing). Among the most popular visual novels by western developers is the popular *Doki Doki Literature Club!* (2017), which surpassed 2 million downloads on Steam in its first three months after release (Jones, 2018). *Doki Doki Literature Club!* was also made with Ren'Py.

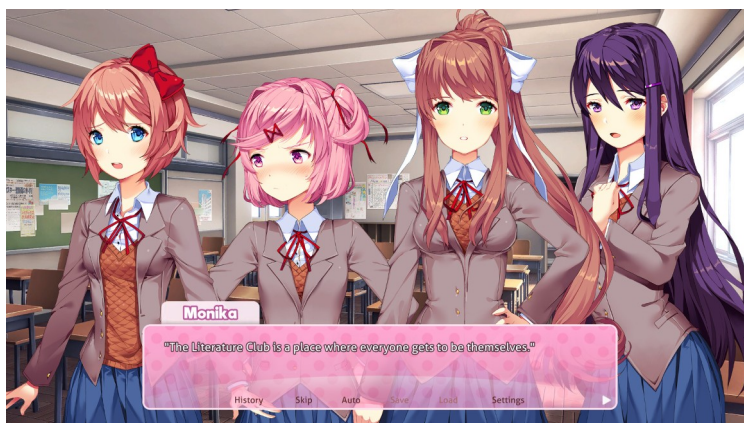


Figure 37. A screenshot from *Doki Doki Literature Club!*

Part II – The Future

This part tries to answer the second research question: what is the future of interactive literature. For this purpose I have used a questionnaire, which is introduced in chapter 7, to gather opinions on a number of scenarios with the intent of trying to see where developers and consumers think interactive literature is heading on the technological side.

Chapter 8 provides an analysis on the answers gotten from the questionnaire. Based on the answers, the scenarios are organized by their likelihood with the most promising scenarios discussed first and the least likely ones last.

In chapter 9, I recount some of my experiences on writing interactive literature, in the hopes of shedding some light on the actual process from a more human perspective. This should give an understanding as to what kind of tools and problems writers are faced with, and what might need more work in the future.

The thesis concludes in the conclusions of chapter 10, where I summarize what I have gone over during the thesis.

7 Questionnaire and results

In order to start getting a picture of what the future might hold for interactive literature it is important to consider what the people reading and writing think, after all, they are the ones with the direct impact on the field. History has told us that technology has had a huge effect on the growth and evolution of interactive literature, but as to which technology will push the field forward is still a mystery. In order to get an idea as to which technologies seem the most promising, I conducted a questionnaire consisting of twelve different scenarios for what the future might possibly hold in terms of technological advancement in the field. These scenarios were inspired by current technological trends, some already existing examples from movies and video games, along with some feedback from friends and family. The aim was to also get an even division of scenarios per genre.

The first step was to start a topic on various online forums with connections to interactive literature and ask people to grade possible future scenarios on how likely they are to come true, on a scale of 1-10, and also, hopefully, provide some reasoning behind their grades. (The template for the topic can be found in Appendix A.)

The scenarios presented in the questionnaire:

1. Text-adventure games and gamebooks will be implemented as interactive audiobooks, played on hardware such as the Amazon Alexa (like in the *Skyrim: Very Special Edition* trailer).
2. Interactive books, such as gamebooks and choose-your-own-adventure books will once more achieve mainstream popularity thanks to e-books.
3. Text-adventure games will start to leverage AI more as a content generator or a "dungeon master", constantly generating new content and adapting to the players' actions, such as with *AI Dungeon*.
4. Text-adventure games will implement AR and VR to complement the text-display (maybe in the style of *Matrix*' "you see the text everywhere" or by way of pop-ups: images, characters, videos, "holographic" depictions of events, as seen in many sci-fi/cyberpunk detective works).
5. Hyperfiction stories and platforms (such as *Twine*) achieve mainstream popularity.

6. Hyperfiction and point and click games will implement AR and VR to at least moderate success.
7. Visual novels without text displays will become popular (being like interactive, illustrated audiobooks or interactive cartoons or comic books with voice acting) with speech recognition used for interactivity.
8. Visual novels will fade out of popularity and be replaced by more cinematic interactive stories, the likes of *Detroit: Become Human*.
9. VR Visual novels, such as *Tokyo Chronos* and *Koikatsu VR*, will become popular.
10. Visual novels have reached their zenith state and will be the most popular form of interactive literature just as they are.
11. Visual novels will be implemented in AR (Augmented Reality), readable/playable with, for example Google Glass.
12. "True" gamebooks, such as the *Fighting Fantasy* series, will achieve mainstream popularity.

The questionnaire was open from January 2022 to March 2022 on the following forums: MyAnimeList, itch.io, intfiction.org and Unreal Engine forums. The topics were opened in phases with the each started two weeks after the previous, and monitoring stopped a month after opening. MyAnimeList is a website for, mostly western, fans of anime, manga and everything related. It is a prime location for consumers of these media, and as previous the chapter explained, visual novels are also a huge part of the anime and manga community. The hope was to get opinions from consumers of interactive literature, of course the bias in this forum would strongly favor visual novels, but as anime and manga fans tend to come from all walks of life, there are bound to be some who also know a thing or two about the other forms of interactive literature.

Itch.io on the other hand is a site dedicated to independent game developers where everyone can share their works for free. As shown in the previous chapter there is also a huge community of developers for all sorts of interactive literature, including hyperfiction and visual novels. The bias is on the side of developers more so than consumers, and this is certainly bound to affect the opinions even if no particular genre would be favored.

Intfiction.org is an online forum dedicated for developers of interactive literature and consists of writers, designers and developers of all sorts of interactive literature. Bias between developers is sure to differ based on their preferred genre and tools, but together this should provide the most balanced set of opinions.

Unreal Engine forums are dedicated to developers who use Unreal Engine. The engine is used to develop all sorts of media, from video games and interactive stories to movies and architecture, I hope it will provide some opinions from people either developing or at the very least interested in interactive literature.

The data from the forums were gathered manually into a spreadsheet due to how different forums work and to screen out any non-answers. The answers were then analyzed to see if there were any scenarios that rose above the rest and any scenarios that were clearly below the rest.

7.1 Results and analysis

The forums for the questionnaire got answers from roughly 30 unique answerers, however, only 9 provided their answers in acceptable, clear and concise form. Others provided answers on a more general level to the topic or somewhat beside the topic, and these answers will be disregarded in this thesis, however, having taken part in conversation with the answerers it is likely that some of the things discussed may integrate themselves into the analysis. The original aim of the questionnaire was to get answers from both casual consumers as well as developers of interactive literature, however, most of the answers came from intfiction.org, which is a forum dedicated to developers of interactive fiction/literature, so the answers are possibly biased.

The following is a summary of the answers in order of their scores, from highest to lowest, and their analysis one question at a time, followed by an overall analysis based on all results. The scenarios are divided into three sections based on their grades, the likely ones with grades 7 and above, the possible ones with grades 5 and 6, and the unlikely ones with grades less than 5.

7.1.1 Likely scenarios

The third scenario, AI generated content in text-adventure games got the highest rounded score of 8, with people being hopeful, or unfortunately realistic, about people's

obsession about AI. Most were of the opinion that given enough time, creative AI will be within acceptable levels to provide interesting storytelling to go with text-adventures, but still keeping in mind that modern day AI is not at that level yet. Some also mentioned that most people tend to think that AI will never equal a human creatively, continuing that writers should probably learn to write together with AI, offering it content and curating it, rather than just shunning it out of fear or leaving everything to it like in the case *AI Dungeon*.

The general positivity towards the possibilities of procedurally generated and AI curated literature (text-adventure or otherwise) becoming more commonplace shows that it is a viable future possibility. However it is still good to keep in mind that AI is not just a thing for interactive literature but for, quite literally, all fields from video games, to medicine to therapy to producing creative content. Meaning that while our world becomes more intertwined with the various kinds of AI, literature, interactive and otherwise, will get its fair share of entanglement for better or for worse.

The second scenario, about e-books boosting the popularity of gamebooks, got the second highest score, with an average evaluation of 7. Quite a few answerers said that it has already happened, but further elaborated that it will not be the case for what has already been, such as the *Choose Your Own Adventure* series. What they meant was that gamebooks like the ones in the past will not be getting a second chance, but instead the digital gamebooks will be something new and different which will grab the audience, much like the new wave of hyperfiction. Others mentioned that gamebooks already had their hayday and will not get another chance as they have already "tried and failed".

I guess, it is understandable that digital gamebooks would not be considered too popular an idea, considering that most of their demographic is kept busy by video games and visual novels, which can offer much more than a gamebook with less trivial effort involved. So, it might be safe to say that the classic gamebooks, regardless of their platform, will have a hard time finding new audiences unless they come up with something new and remarkable to sell themselves with.

7.1.2 Possible scenarios

6. The usage of AR and VR in hyperfiction and point-and-click games got an average score of 6, with most saying, as with text-adventure games, that AR and VR do

not really mesh well with a mostly text-based medium. AR and VR implementation for point-and-click games on the other hand was seen as a much more promising thing.

11. AR visual novels got an average grade 6, with people stating the advantages of what VR can offer, with more affordable and less bulky devices. It was also said that, thanks to visual novels having more money behind them, they are more likely to try experimenting with AR than other forms of interactive literature.

1. The idea interactive audiobooks got an average grade of 5, with general view being that it will never be more than an accessibility feature for the visually impaired. It was also pointed out that such books already exist, such as Budgie's *Detective X* (2020). However their popularity was compared to that of gamebooks in the modern day. One of the reasons given for this was a common distaste for voice-recognition applications, with one of the answerers stating that they stay away from everything that has voice-recognition.

From this, it is assumable that interactive audiobooks may not be the future in interactive literature, much like audiobooks have not been the future of literature, though they do offer accessibility for those who cannot read or see, which would make audio driven features a good addition to interactive literature works for further accessibility.

5. The mainstream success hyperfiction and Twine got an average grade of 5, with the common opinion being that hyperfiction is as popular as it will ever be by itself, but when used with other works, it might be decently popular. One of the examples mentioned was the opening of Campo Santo's 2016 adventure game, *Firewatch*. Other than that, it was also said that it is not really commercially viable enough to see mainstream production.

7.1.3 Unlikely scenarios

8. Visual novels fading out from the way of more cinematic interactive stories got a score of 4, with general consensus being that visual novels are popular partly because of their simplicity, both for the reader and the writer. More cinematic stories would require the a big budget and personnel and would not be doable by a lone individual with low to no budget. And while this was the common opinion some did say

that a flashier version of visual novels might eventually eclipse the modern visual once technology makes it easier to do.

The common opinion now seems to be the same it was when the genre was created, something simple for both the reader/player as well as the creator. And just like then, a big part of visual novels produced come from hobbyists and independent developers rather than big studios, and as long as these independent developers exist it is easy to see visual novels existing and being, at the very least, decently popular as well.

4. AR and VR implementations in text-adventure games was valued at 3, with the majority of answers being a 1. Most everyone said that VR especially is not something that is compatible with a medium that is effectively all text. Some did say that AR might be cool when used with a story that benefits from the aesthetic, such as Minority Report-esque cyberpunk story.

All in all, it seems AR and, especially VR are not seem compatible with text and, aside from some experimental hobbyists, the idea is widely considered absurd among the answerers. So it quite likely is not a prevalent future possibility for interactive literature.

9. VR visual novels got an average grade of 3, with people seeing VR as nothing more than a fad, rather than something that would dominate the market. Some said it could work well for visual novels, as visual novels are mostly build around conversations between characters, putting the player face-to-face with them could help with immersion. But still, the tech is seen as nothing more than a fad, the belief that developers and readers would dedicate themselves to the format, partly due to its bulkiness and cost, is deemed unlikely.

10. Visual novels having reached their zenith is also seen on average as a 3, with most everyone agreeing that, thanks to the indie scene in which they heavily reside in the west, someone is sure to come up with new and unique ideas to take the genre forward, even if it has remained nearly unchanged since 1996. Some were, however, of the opinion that they are already at their zenith, but not at their most popular yet.

From the viewpoint of this thesis the answers for this question were hard to evaluate as some of the answers seem to use the western definition of visual novel while a few others used the Japanese definition, which does create some disparity between the

answers. It also seems the many of the ones voting against visual novels being at their zenith were talking about the western definition, based on their examples. While couple of the ones voting for zenith seemed to mean the Japanese definition.

12. “True” gamebooks becoming popular got a rounded up average of 3, with people sharing the opinion that they, along with role-playing boardgames are as popular as they will ever be, and will remain as a niche.

7. Textless visual novels were valued at a 2, an opinion shared by practically everyone who answered was that, one of the appeals or strong points of visual novels is the text, so removing it would not make much sense. Instead of having its current best of both worlds appeal (graphics and text) it would instead become the worst of both worlds, as you could not go through it at your own pace and you could not just close your eyes and relax as you can with audiobooks. The unanimous opinion was quite clear that such visual novels would never be popular.

7.1.4 Overall

Other than AI’s dominating popularity worldwide or the gamebooks’ decent rise in popularity due e-books, the scenarios were not deemed too likely to happen. This might in part be due the scenarios presented but also even answerers who chose not to answer any of the scenarios directly were quite against change. Some criticized the technology driven approach of the scenarios saying that it should be more focused on writers, that the future relies on offering writers more and better tools to write with, yet not really knowing what form these tools would take. Many said that the future is hard to foresee and thus they cannot make proper evaluations.

Generally, the answers were in favor of visual novels being the most promising format, with them having most potential for experimentation, as well as being popular and commercially successful with both independent developers and bigger studios. Not to mention they were deemed fitting for all kinds of budgets. As answers to the 10th scenario show, visual novels are hardly thought to have reached their zenith, and thus show much promise moving forward.

The answers also showed that there is something missing from the questionnaire, most of these answers were screened out as they did not provide answers to the scenarios, but their point is still worth noticing – the human writer. Admittedly, the

scenarios focus on technological innovations and advancements in the field, possibilities that may seem interesting for readers, but do not give much thought to what it would be to write for those scenarios. Some of the answers criticized the scenarios for not including more writer-centric scenarios, some that were suggested involved either new tools to make writing easier and friendlier, or study programs to help promote and enable new writers and introduce all sorts of writing tools so everyone could find the ones they like most but would not otherwise have even thought to search for. This is a valid critique as literature would not exist without the writers, so looking at this from a writer's perspective is sure to also bring new insight to what the future of interactive literature could, or should, entail.

8 From a writer's perspective

Some of the answerers to the questionnaire, whose answers were screened out of the analysis, were of the mind that focusing purely on technology is the wrong attitude and that the future of the interactive literature lies with the writers and the tools that are offered to them. One could also argue that the readers are just as important, after all, one of the reasons why the first wave of hyperfiction did not really catch on was because of the unfriendly user interfaces, which made them hard to read for the readers, even if the writers got the tools they wanted. As a reader and a writer of various forms of interactive literature, I will discuss my experiences concerning writing and reading interactive literature in this chapter in order to open some of those opinions not just based on the words of others.

The works I will use as a base in this chapter were written by me and have been released in itch.io and the formats they cover are gamebook, text-adventure, visual novel, and hyperfiction.

8.1 Writing gamebooks

Four years ago, I started making a 2D side-scrolling platformer game, titled *PAN★TZU*, which originally started as a joke: “what if *Metroid* was set in Samus’ high school years”. The idea grew from that and started to grow its own life, getting more and more inspiration from various anime series set in high schools, which I am a huge fan of. As development progressed I eventually started writing a detailed version of the framing story. With that intention I chose to use OpenOffice Writer for the writing. But as I kept writing I kept getting new ideas for the story, which started turning into a prequel for the game and from there, just like the game it was supposed to be framing, gained its own life as its own story, and became a novel.

The novel version tells the story of a shy and introverted young Finnish girl, Silvia, who wants to be a game developer just like her father. However, one day, her father gets a job at a game company in Japan, and the whole family ends up moving

there. Now she has to learn how to survive through high school in a strange land with a language she barely understands. Eventually she does manage to get friends and gets inspired to start a game development club at school with those friends, setting her on the path towards her dream.

As I was writing I realized that the best way to publish the story would be as visual novel, so after finishing the first chapter (which totaled in just over 30 pages) I started looking for branching points and manage to find two good points to branch of off. If this was a gamebook, the choices would be too few, with 1 per 15 pages. The average for gamebooks, at the lowest, seems to be 1 per 2 pages / a spread. This is partly because they are considered adventure books, meaning that the reader is supposed to explore the book and try to find the solutions to the riddles while staying away from dead ends. Many issues of the *Choose Your Own Adventure* series are build like mazes, where the reader is trying to find their way out. My work was obviously not build to be gamebook, I wanted to make the choices meaningful and thus settled for only the two (see Fig. 38). Even with just two choices and two options per choice, my page count doubled and four different endings were born for the chapter.

What should I do? It's not like I have something important or better to do. Then again, I don't really feel comfortable going to out to eat with people I barely know... Especially since I can just barely understand them. I don't think I can get out of going quite that easily, however.

-----[OPTIONS]-----
1-A. But since I don't have a good reason NOT to go, I might as well, I guess. (Page 17)
1-B. I'll just come up with an excuse and leave. Best to get home as soon as possible.
(Page 28)

Figure 38. An example of the choices in PAN★TZU

This was the point I also realized that, while I only have a couple choices now, I could not keep this level of branching going without running into a combinatorial explosion. After all, if I kept all of my choices meaningful and unique, the second chapter with two choices and two options per choice would already lead to 16 routes, which would also quadruple my page count. From a readers standpoint, that would also

be quite unwanted as the amount pages they have to flip through to get to the start of the next branch would start requiring more and more work. Of course, removing the meaningfulness from choices would also have adverse effects on the reader. For example, if both of the choices “stay home” and “visit friend” would lead to the character going to the supermarket, it would hardly matter what the reader chose. If the reader were to realize this, the choices themselves would lose all effect. The issue of meaningless choices has also become somewhat of a meme within video game players, with many games supposedly giving players completely contradicting choices (such as “spare the bad guy” or “execute the bad guy”) but both choices nonetheless leading to the same result.

After finishing the routes, I thought about doing a small experiment with the chapter, something I was planning to perhaps also include in the final visual novel version, luck based branches. Out of personal interest I had already done some research into tabletop role-playing games and solitaire adventure books, which is where I got the idea to include some branches that the readers themselves could not decide, but would have to roll a die to decide the next branch (see Fig. 39). The branches I created for this purpose were not necessarily meaningful in the long run and offered only slightly different pages, which in the end led to the same results. My test audience (friends and family), nonetheless, still seemed to enjoy them to a degree. Not enough to want an entire novel build around just that, however, but appears it was a nice change of pace from what they usually read.

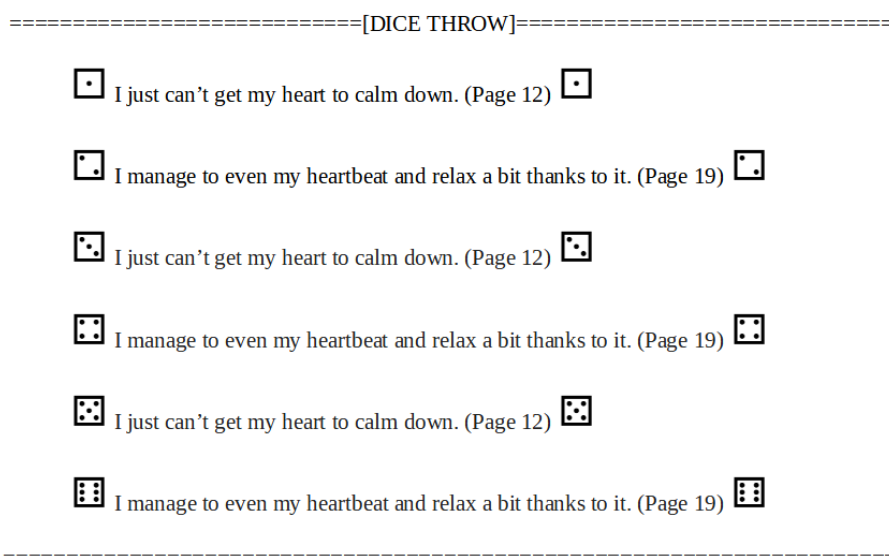


Figure 39. An example of dice-based choices in PAN★TZU

These extra branches, naturally, increased my page count further and it was becoming increasingly harder to manage the different routes and branches, as every new page meant I had to go and fix the page numberings on each choice. The, originally, 30 pages long first chapter had swollen to fill 66 pages by the time the basic branches had been implemented, and 82 after the luck-based branches. Writing a whole book with several chapter build the same way would most likely end up in thousands of pages which would certainly be even more inconvenient to read. This is certainly a limit of the standard physical book format, which makes it quite unfit for bigger, more involving, branching path stories. E-books, however, have the benefit of still keeping the physical size of the work small and most readers also offering the *jump to page* feature, which allows the reader to immediately jump to any page. The certain to be helpful feature does have one downside to it and that is in how the book is organized by the writer. If the book has a cover page, a title page, contents, special thanks, and various other extra pages in the beginning, pushing the start of numbered pages far off from the beginning the jump to page feature can lead readers to wrong pages if the choices are written to lead to pages by their marked page number instead of the actual page number in the file. This could be countered by changing the choice directions to the actual page numbers, but not all readers use, or even know how to use, the jump to page feature, instead choosing to scroll to the marked page. My test audience included people like this, especially among the older members. Fixing the issue one way would only serve to create another issue. So the best option, ultimately, ended being to simply to match the marked and actual page numbers, something I have rarely seen e-books do, despite how simple it is. Other than that, I do not think there are too many improvements to be made for basic writing software, at least any more so than what it already offers for a writer in comparison to pen and paper.

When finally moving to the digital form, I created a simple template for the it in Unreal Engine 4. The template resembled Chunsoft's sound novels, with only some backgrounds added behind the text. (see Fig. 40) It allowed me move what I had written as is in to the template, without any changes to the text. The biggest change would be the removal of having to flip through pages, with branches being chosen and displayed at the click of a button. The format also raised the question of whether I should make the luck-based branches invisible, i.e. having the computer decide them on the

background or would it be better to have the player click a dice rolling button that would decide it. Ultimately, for convenience, I went with the invisible die rolling, so readers would not even know that a specific branch had been chosen. This, of course, took away some interactivity from readers, which is detriment to the idea of interactive literature.

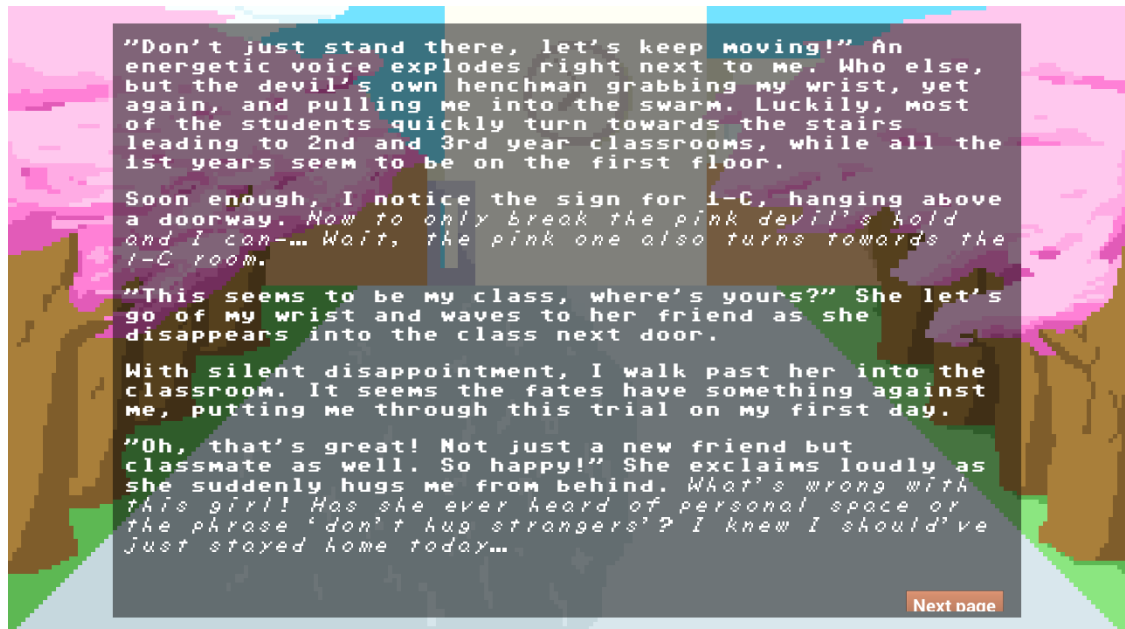


Figure 40. A screenshot from the sound novel version of PAN★TZU

8.2 Writing text-adventures

As I was working on the art assets to make a visual novel out of the sound novel, I decided to, for experimentation's sake, make a text-adventure version of the story. As opposed to the sound novel and gamebook I had, the text-adventure would offer much more interactivity, but that also required a lot more work to set up. The template was made as an addition to the sound novel template in Unreal Engine 4. In order to make the template as generic and reusable as possible, it required the use of five spreadsheets which, while keeping things organized, made things a bit complex.

One spreadsheet was dedicated to the vocabulary of the game, it listed all the verbs the player could use and what they would mean in game. For example, “move”, “go”, “walk”, and “run”, are all words that mean *movement*, thus for my purposes I defined them in the spreadsheet to mean movement. A second spreadsheet was dedicated to objects and items, and included things like descriptions, type of object

(whether its environmental, equippable, consumable, or an NPC) as well as different call names the player could use to refer to the object. The third spreadsheet was dedicated to dialogue. Each dialogue set could have up to three different lines, that the game would cycle through as the player kept talking to the same NPC (non-player character). Of course I did not want the dialogue with the same characters to just keep repeating so I made a fourth spreadsheet for events, which could be anything from asking the player for input on a question and defining a variable as a result, to automatically moving the player to another location to automatically equipping or discarding items, etc. The spreadsheet included event behavior as well as required triggers to trigger the event and some description text to inform what has happened. And lastly, of course, I made a spreadsheet for the actual scenes which brought together everything from the other sheets and set up each scene with descriptions, objects and events as well as surrounding them with other scenes so the player could move between them (The result of these spreadsheets in Fig. 41).

```
hard, in fact, I can feel my heartbeat through it. It
doesn't feel like I'm getting any closer to the school.
> look around
The streets that were filled with bustle, when I left
home, are now empty. My only company is the wobbling
shadow beside me. My feet are keeping up a strict
snail's pace as every other part of my body keeps
telling me to turn back and go home.
> forward
"OUCH!"/"ITA!"
Just as I step out from behind a corner, someone
crashes into me and pushes me to the pavement.
"Great now even my skirt is dirty and my butt hurts..."
There's a pink blob moving and mumbling something on my
lap. The blob wobbles a bit more.
> talk to blob
"☄MM††††!"
>Press TAB and write something...
```

Figure 41. A screenshot from the text-adventure version of PAN★TZU

While the separate spreadsheets kept the text quite well organized, it also made it a bit of a chore to write, as I had to jump between the various spreadsheets constantly when writing scenes. Not to mention the actual work of transposing a very story-driven, yet fairly low-action story, into a text-adventure. For one, it is not really good practice to fill the screen with entire paragraphs at every scene, so I had to start dividing the text

into scenes and the paragraphs into their smallest components. Deciding what to use as a short description for the readers to first read about the scene and what to include in long descriptions should the reader examine the scene deeper. I had to do the same for objects and events. Doing this for the dialogue was the especially hard part, because the reader might not interact with the NPCs so I had to structure the story and dialogue in a way that would make sense even if the NPCs were talked to only once and not at all. It worked as a pretty solid ground for designing the branching points of the story. Meaning that the branching was not so much about choosing an option from a list but about how much would the reader interact with the world and its objects.

This of course enforced an issue that I already have with text-adventures: not knowing what to do. One could argue that part of the game is figuring out what inputs work and which do not, i.e. the adventure is just as much about exploring the vocabulary of the game it is about exploring the world of the game. It also makes the reading/playing frustratingly difficult for some, including me. I have experience in playing both English and Japanese text and graphic adventures, but this problem still persists and I have never actually been able to get to the end of a single text or graphical adventure that I have started reading. This difficulty was also a common feedback I got from my family and friends regarding my version – they just simply could not progress.

When it comes improvements, I am quite sure there are better software already made for anyone who wants to start writing text-adventures without the need to build the entire system from scratch. The free and open-source software, Quest, is most likely much better and more streamlined than the template I made, if all one is looking for is to make text-adventures. There is of course more to text-adventures than just the tools to make them, and writers are responsible for their readers experiences. The frustrating difficulty that keeps the genre inaccessible to many is one of the things writers might want to focus on if they wish to introduce their stories to a wider audience. AI Dungeon deals away with this difficulty by removing the problem altogether as anything the reader might write is reacted to by the AI and the story keeps moving with every action. So AI does certainly help in this case, but it also takes control away from the writer should they want to tell a specific kind of story. The best way to deal with this would perhaps be a kind of hybrid approach where the writer and the AI would work together to direct the story a certain way, but that is currently quite hard to accomplish still.

8.3 Writing visual novels

After I finally finished the necessary art assets for my original visual novel idea, I moved on to planning how I should approach it. Moving from the sound novel to visual novels, however, was quite simple and I managed to get it exactly how I wanted by simply expanding the template to include sprites and display the text on a smaller window. It also did not require pondering the extra interactivity factor as much as the text-adventure format did, which saved me from having to redesign the entire structure for a third time. It still did bring about its own share of difficulties. One lies with the smaller text window and the line-by-line approach that visual novels are known for, i.e. one should not present the readers with entire paragraphs of text at once, but instead should divide the content into singular lines and sentences which are displayed to the reader one at a time. Outside of that, the text content in visual novels is also, generally speaking, much more dialogue-centric, thus forcing one to write less pure scene descriptions and more dialogue between characters or personal monologues (see Fig. 42). This does require to think of the content in a bit of a different way from average gamebooks, which rely more on descriptions of the scene and environment for the “You” of the book, a habit similar to text-adventures.



Figure 42. A screenshot from the visual novel version of PAN★TZU

Of course, there is a simple reason for why heavy descriptions are not needed, and that is because of the visual aspect of visual novels. Background art gives a sense of the environment in the scenes and character sprites show the people the player or main character is talking to along with giving each character an expression that defines their current state of mind. This was one of the things that also eased the load of writing but at the same time brought on the challenge of how to express these characters and in a graphic format. The graphics may seem unrelated to writing, but they guide the reader's imagination to a certain direction and can even play an integral part in storytelling. After all, a character's body language and expressions are just as important, if not more so, than the words they speak (see Fig 43). In a work that combines both text and graphics it is also important that the two do not clash with one another, which made the development of the graphics that much harder.



Figure 43. Character sprites used in PAN★TZU, an example of body language (enlarged from original size)

Graphics is unfortunately something that there is no easy way to do no matter the tools in your possession, but for writing and creating visual novels there are plenty of tools to make the process easier, outside of having to make your own. In the western developer industry Ren'Py is a popular visual novel engine and has plenty of good features. However, for my purposes, I have come to realize that it is quite lacking in terms of displaying pixel art, which has to be scaled up before importing so as to not lose quality. Unreal Engine can display pixel perfect accuracy naturally without the need to scale up small assets before import, which certainly streamlines the workflow for pixel art centered works. Another thing I prefer in Unreal Engine is the fact that the template can be expanded as much as is needed to fit any kind of visual novel idea. My

latest project, for example, includes minigames that affect which routes the reader ends up on in addition to traditional decision making. Of course the more gameplay elements one adds the more of a philosophical dilemma one creates: when does a piece of interactive literature stop being literature and turns into a game?

8.4 Writing hyperfiction

Hyperfiction is something I only started dabbling with more recently. I picked up Twine for a course on quantum game development, instead of building my own template for it. My intention was to write a story revolving around a cat that experiences several worlds at once. I named the story *My Human*. This idea I felt like would make it possible to write a story similar to the first wave of hyperfiction, where the story would move cyclically and could start from anywhere and move across the paragraphs randomly.

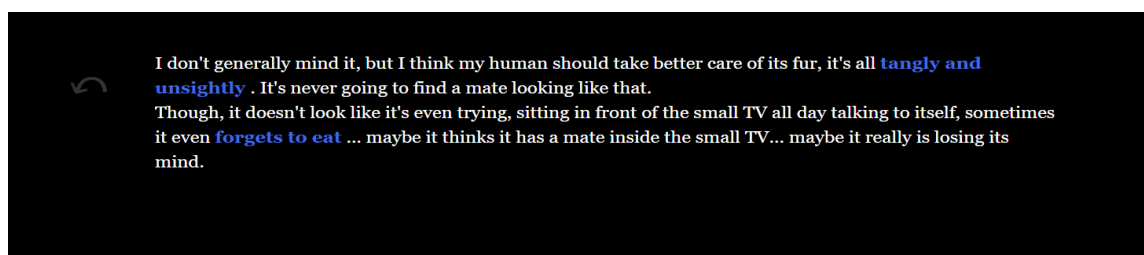


Figure 44. A screenshot from *My Human*

However, this proved to be quite difficult. Given I had no prior experience with Twine so I was not quite sure what all it could do. But as for writing and organizing a non-linear story the interface was easy to grasp, and writing with it was just as simple as writing with OpenOffice programs. The writing was where the real difficulty hit and I started to understand what Lafarge (2013) meant with writers lacking the ability to write for the format. The idea of trying to build a story out of stand-alone paragraphs that would make sense without having any order proved to be more than I could handle. I started by trying to write as many of these stand-alone paragraphs as I could, but as I started connecting them to be chosen randomly, I felt like the point was getting lost more and more with each connection. So I gave up on the random order of the paragraphs, and implemented order, which led to me also making heavy changes on the

paragraphs, as they no longer needed to be stand-alone but could instead connect and continue from previous paragraphs. This did have an adverse effect on the cyclic nature of the story and the reader would essentially just end up repeating the same paragraphs if they chose the same links on different cycles.

As far as my experiences go with Twine, the system is just as streamlined for writing hyperfiction as Microsoft Word is for writing linear stories, so the issue with hyperfiction is no longer in the tools, either for writers or for readers, but in the writers themselves. The future of the genre depends on writers being able to use the format to its fullest.

9 Conclusions

This thesis talked about interactive literature, its past, where it came from, its present, where it stands now, and its possible future, where it might head from here. As a writer and fan of a subgenre of interactive literature, visual novels, the subject had for a long time interested me, especially as it also shares a large part of its history with video games, which I am also a huge fan of. I also like doing historical research on various subjects in my own time, so I already had a decently good grasp of the subject as well as knowledge of where to start going deeper with it. But researching the topic is quite difficult and time consuming as most of the previous research and articles on it only seem to focus on a single subgenre of interactive literature. This is one of the things I hope the first part of this thesis will help with in any future research on the topic, as it offers a decently deep and broad look at the history of all interactive literature, not just a subset of it.

The first chapter introduced a quick history of literature up to the point where interactive literature was born. Chapter 2 continued straight from there, with history of interactive literature in the realm of physical literature. It introduced the, most likely, first piece of interactive literature, *Consider the Consequences!*. Followed by introductions of several series and styles of gamebooks. The chapter also talked about the connection between gamebooks and role-playing games, especially tabletop role-playing games, which had a huge effect on the genre. This gave birth to three different sub-genres of gamebooks, the Choose-Your-Own-Adventure stories, which were mostly aimed for children, solitaire adventures, which adventures designed for solo players of the most popular table-top role-playing games like *Dungeons & Dragons* and *Tunnels & Trolls*, and stand-alone gamebooks, which are called the “true” gamebooks by some as they do not require any outside material, like solitaire adventures do, to be played/read. The problem, however is that many early gamebooks are quite hard to find and read, a common issue with many of the early works presented in this thesis. While the more popular ongoing series like Fighting Fantasy keeps re-realizing its older entries, the series that have already ended and works that were not part of a series are almost impossible to get one’s hands on. This is one of the problems that is sure to plague any research on the subject, as it will be extremely difficult to get ones hands on

some of the actual works and thus not be able to see and analyze them up-close. Unless one is willing to travel in search of museums or collectors that might have these works it is almost guaranteed that they would have to settle with trusting the words of others and their reviews on some of the books.

The issue remained and perhaps became even more prevalent with the works presented in Chapter 3, which focused on the rise of digital interactive literature. Many of the old works in the digital landscape have either been lost or discarded, as was the case with *Wander*, a game predating the most commonly referred to first text-adventure game, *Colossal Cave Adventure*, and was only found a year before this thesis was written, almost 50 years after its release and disappearance. *Colossal Cave Adventure* still remains the more influential of the two, with lots of research done on it and its successors. The chapter also introduced graphical adventure games, which largely succeeded text-adventures. However, they also brought about one of the biggest oversights in the field, which remains a problem till this day: the influence of and the lack of research on the Japanese interactive literature of the time. This was exemplified by nearly every source found, as most of did not even mention the Japanese market let alone titles, such as *Star Arthur Densetsu*, which is possibly the first point-and-click game, predating the Apple Macintosh and its mouse-driven point-and-click games. Most research found about adventure games, focused solely on the Western side of the field and the ones that focused on the Japanese side were only doing so in retrospect to visual novels, most of which overlooked the fact that, in Japan, these games they referred to as visual novels are thought of as a completely different genre. This only serves further complicate research, especially for those outside of Japan. Not aided by the fact that most of the works from Japan have never been localized and, thus have never reached Western shores making information gathering all the more difficult until someone decides to translate and re-release these works, even if only as a fan-translation. This is something this thesis hopes to rectify, helping to realize and recognize the importance and need to translate and localize older Japanese works.

Chapter 4 talked about the first wave of hyperfiction, starting with Jorge Luis Borges' *The Garden of Forking Paths* and moving on to the Mother of All Demos which introduced hypertext, the core of hyperfiction. The genre was, more or less, started by Michael Joyce and his Storyspace system, which he developed specifically for writing hyperfiction.

Chapter 5, introduced visual novels as defined by the Japanese industry, starting with the development of sound novels as a way to introduce games to non-gamers and eventually adopting the name *visual novel*. It covered the effect of fans on the industry and the importance of the Japanese Comic Market event. These were the building blocks that lead to the industry skyrocketing in popularity in Japan. And thanks to the global anime boom starting in 1990s and 2000s the visual novels spread to the rest of the world with constant help from fans all around the world. It is thanks to this that quite a few of the early visual novels have seen translations to other languages, and many are being translated even now.

Chapter 6 explained what had happened to these various forms of interactive literature in a where-are-they-now kind of a format. Explaining how gamebooks disappeared, in large part, thanks to their mass production focusing on quantity instead of quality. Following with the good news that adventure games have still retained their popularity thanks to constant evolution and adaptation to the surrounding field. Even if some specific sub-genres have fallen to mere cult hits, like text-adventures, the genre as a whole has seen some undeniable mainstream hits thanks to Japanese developers, such as the *Gyakuten Saiban* series. Hyperfiction on the other hand suffered a great fall from a greatly promising invention to a largely forgotten piece of fiction, due to its unfriendly user-interface and writers incapable of carrying the promise it was sold with. But thanks to Twine hyperfiction has seen a new rise with its second wave, becoming quite popular with independent developers. Visual novels on the other hand made a huge splash among various fans and independent developers in Japan at their dawn, and thanks to global anime boom, visual novels not only saw a huge increase in consumers all over the world but in developers as well. Western made visual novels have also seen immense popularity largely thanks to their anime-like visuals.

The second part focuses more on the future from a technological standpoint, with the goal of trying to see what the future of interactive literature is, or at the very least what areas of technological advancement future research should focus on from the perspective of interactive literature. For the purpose a scenario based questionnaire was used, which was explained in Chapter 7. the questionnaire was posted on various forums that should include both readers as well as developers of interactive literature. Unfortunately, the topic went unanswered on half of the forums it was posted on, and

the overwhelming majority of my answers came from a single forum dedicated to developers of interactive literature.

The resulting analysis of the answers in the same chapter showed the trust of these developers in the future of AI in interactive literature, in their own words “for better or for worse”. The new rise of interactive e-books trailed in close behind. Many predicted that while the gamebooks may not return the way they were in the 1980s and 90s, they would adapt a new form to fit the modern e-book format.

Chapter 8 described the experience of writing interactive literature from a personal point of view, with insight on several different formats. Problems with writing a gamebook revolved around combinatorial explosion and having to shift through an ever increasing number of pages, which create extra hassle in triviality for the reader. Writing text-adventures with a self-made template had the problem of being a bit overly complex and transposing a fairly low action story into a text-adventure was also quite a hard process. The biggest issue with the genre is most likely the difficulty of trying to find the right words to progress in the game. The hardships fro writing visual novels start with matching the graphics with the story and characters, and continue with having to think of stories through dialogue rather than descriptions of events and scenes. The last genre to be discussed was hyperfiction, with the aim originally being to make something similar to the first wave of hyperfiction stories, however, much like many of the writers at the time, the lack of ability in writing such a thing well enough forced goals to be switched to a more simple hyperfiction structure.

The history of interactive literature shows that most of the new formats were born and developed by independent parties and most of their developers today are also independent parties, with many of the ex-independent developers having become bigger thanks to what they had developed as independent developers. This is something that resonates on almost all fields surrounding interactive literature, from writers and artists to translators and system developers. Which is why it is safe to say the modern industry hinges on independent developers that keep it afloat.

The future is most likely also in the hands of these independent developers and how they choose to use whatever technology they are offered. AI being the latest in a long of new technology that shows promise thanks to the way it can be implemented with interactive storytelling to mimic what the Game Masters in tabletop role-playing

games have been doing ever since their inception. And with the ever increasing popularity of touchscreen devices and tablets a new wave of interactive gamebooks is also something that people on the field are expecting to see.

There is plenty of research already on the field but most of it is very separated and their researchers seem to dismiss their connection just as many western researchers seem to dismiss the importance of the Japanese side of the field, outside of visual novels. With more joined research on the field, the entire field of interactive literature could one day be defined as its own field rather than separating it into games, adventures and interactive fiction. Having a single field to research would also help connecting the dots and seeing what exactly the future of the field needs to move forward and how these needs can be quenched.

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Appendix A

"Hi everyone,

I'm writing a Master's thesis about interactive literature (visual novels, gamebooks, text-adventure games, etc.), and more specifically, about the future of interactive literature. And I would like to ask for your opinion on the following possible future scenarios for interactive literature on how likely you think they are and to what extent on a scale of 1-10?

You don't have to answer to everyone one of the scenario, just the ones you find the most interesting or likely, of course you are more than welcome to.

And if you come up with any additional scenarios feel free to add them in. I'm interested to see what kind of scenarios I didn't think about and I might add them to my later questionnaires on other sites.

The scenarios:

13. Text-adventure games and gamebooks will be implemented as interactive audiobooks, played on hardware such as the Amazon Alexa (like in the Skyrim: Very Special Edition trailer).

14. Interactive books, such as gamebooks and choose-your-own-adventure books will once more achieve mainstream popularity thanks to e-books.

15. Text-adventure games will start to leverage AI more as a content generator or a "dungeon master", constantly generating new content and adapting to the players' actions, such as with AI Dungeon.

16. Text-adventure games will implement AR and VR to complement the text-display (maybe in the style of Matrix' "you see the text everywhere" or by way of pop-ups: images, characters, videos, "holographic" depictions of events, as seen in many sci-fi/cyberpunk detective works).

17. Hyperfiction stories and platforms (such as Twine) achieve mainstream popularity.

18. Hyperfiction and point and click games will implement AR and VR to at least moderate success.

19. Visual novels without text displays will become popular (being like interactive, illustrated audiobooks or interactive cartoons or comic books with voice acting) with speech recognition used for interactivity.

20. Visual novels will fade out of popularity and be replaced by more cinematic interactive stories, the likes of Detroit: Become Human.

21. VR Visual novels, such as Tokyo Chronos and Koikatsu VR, will become popular.
22. Visual novels have reached their zenith state and will be the most popular form of interactive literature just as they are.
23. Visual novels will be implemented in AR (Augmented Reality), readable/playable with, for example Google Glass.
24. "True" gamebooks, such as the Fighting Fantasy series, will achieve mainstream popularity.

I'll use the results in my thesis to see what readers, developers, and otherwise interested parties think about the various future possibilities for interactive literature, and whether or not there is one or two scenarios that stand out above the rest. I won't be gathering any names or anything, only the opinions in general context.

If you would like to talk about the topic more in private, you can DM/PM me."