

COLOSSAL CLASSROOM ADVENTURE: DEVELOPING INTERACTIVE FICTION FOR ENGLISH
LANGUAGE LEARNERS

BY

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THESIS

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ABSTRACT

The purpose of this project is an act of exploratory research to develop a text based interactive adventure for non-native English speakers to hone their extensive reading skills in American English. The history of text based gaming will be used to establish a guide over the potential pitfalls unique to the genre. Then the uses of games in an educational context will be established to show the differences in teacher motivation toward the creation and use of gaming in education. Second Language Acquisition and ESL reading specific research will be used to create a set of guidelines for the text and presentation in the game. Details of the game are presented to detail the plot, educational justification and technical specs. Finally, I will explore how this information could be used to assist teachers in the game creation process.

TABLE OF CONTENTS

CHAPTER 1: INTERACTIVE FICTION AND TEXT GAMES	1
CHAPTER 2: EDUTAINMENT, EDUCATIONAL GAMES, AND GAMIFICATION	7
CHAPTER 3: ESL TEACHINGS: OVERVIEW AND GAMING CONNECTIONS	11
CHAPTER 4: CINEMA ADVENTURE	18
CHAPTER 5: MOVING FORWARD.....	29
REFERENCES	31
APPENDIX A: SOURCE CODE	39
APPENDIX B: WALKTHROUGH TRANSCRIPT	87
APPENDIX C: VOCABULARY LIST.....	102

CHAPTER 1: INTERACTIVE FICTION AND TEXT GAMES

Gaming

Play is an intrinsically motivated, voluntary set of actions that focus on recreation or enjoyment (Oxford, n.d.; Gray, 2008). Play and games are two close concepts; games being an extension of play with stricter structure, like rules and other boundaries (Piaget, 1951; Vygotsky, 1967). Think of the difference between: “children playing outside” and “children playing games outside”, the latter might conjure up a more specific vision of children involved in a game of croquet or tag, while the former may include these activities or just running through a sprinkler, an activity that is enjoyable, but may not be structured. The concept of a game is very broad and can apply to computer/video games (henceforth, collectively referred to as “video games” for brevity’s sake); board games, like monopoly or tabletop RPGs (Role Playing Games) like Dungeons and Dragons, even sports. This paper will outline the plan and development of a video game suited for English language learning. It’s worth noting, that although you may have little experience with video games, you have likely had some prior experience playing “games”. These experiences present relevance in understanding the purpose, play and application of video game.

“Gaming” is even more specific than play or games and has come to mean the involvement in playing video games (Technopedia, n.d.). A gamer is the person that participates in gaming, usually video gaming. Unlike table top and board games which default to “playing games” or qualifiers like “tabletop gaming” (rather than just “gaming”), gaming implies that there is a device, often electronic, used to facilitate the gameplay (Ray, 2012; Technopedia, n.d.; Tse, Greenberg, Shen, & Forlines, 2007). This is not to be confused with gaming’s other definition which is the play of gambling games; this definition is used in law and can be seen in patents (University of Nevada Las Vegas). This paper will refer to gaming exclusively to refer to the act of playing non-gambling video games.

From Text to Graphics

A text based game is a game that utilizes text characters rather than graphics to represent an environment (Curtis, 1992). The use of text to represent images, dialogue and description was made

necessary by limitations of computers in the 1970s and 1980s, when these types of games began to emerge on the market. Early examples of text based adventure games include Colossal Cave Adventure and Zork. These particular text based adventures are synonymous with Interactive Fiction, discussed more extensively in the next section.

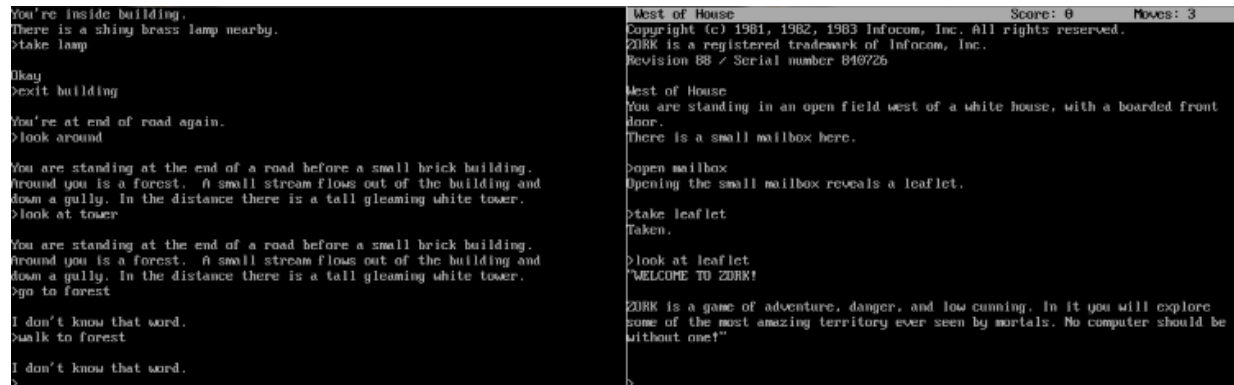


Figure 1. Colossal Cave Adventure and Zork Gameplay. This is an example of early text adventure games running in a DOS environment.

Text based gaming got its start in the 1970s, where games were more commonly developed by programmers or others established in Information Technology. At this time, programming for a hobby was not as common as it is today and playing games on a home computer was nearly unheard of in a burgeoning but costly market (Computer History Museum, n.d.; Domingo, 2011). An exception to this may be found in those that purchased Atari home computers and found it necessary to learn to program to increase their gaming library (Lendino, 2017; Macklin, 2018). Games of this time could be said to contain a certain charm and allowed a new sense of engagement that movies or books could not match, by letting the player explore and influence the game’s progression. Concealed behind deceptively simplistic interfaces lie unforgiving environments with, at times, sets of illogical or convoluted solutions. Game designer and producer Ron Gilbert explained in his original 1989 treatise *Why Adventure Games Suck*, “What makes most games tough to play is that the puzzles are arbitrary and unconnected.”. Instead, games should work on bellowing rules and being consistent. If they don't encourage immersion, Gilbert argued, they fall flat (2004). However, for early adventure games, these rifts in a fundamental aspect of

adventure game design would be overlooked while technological developments helped to pave the way for more immersive spaces.

By the 1980s, text based games still had a market share; but with the advent of Graphical User Interfaces (GUIs) and the expansion of the home computer market, games were being played by a wider audience and they were becoming punctuated by graphics, animation, and sound. At the time, arcades were a widespread source of pay-to-play entertainment for the masses. After the great video game crash in '83, fourth and fifth generation home console makers Nintendo, Sega, and Neo Geo rose from the ashes to port various arcade games (along with original content) that allowed television owners to play their favorite games, albeit often with some changes to account for hardware limitations. This, along with increasing home computer ownership meant that more people had access to video games (United States Census Bureau, 2016). Since puzzles could not be difficult simply for the sake of eating up quarters, companies devised other ways to charge for the sometimes absurdly obscure solutions to in-game puzzles (Ray, 2012). What followed was the development of help hotlines and magazines, like Nintendo Power, that players paid for to reveal secret areas and hints for solving puzzles.

The 1990s were something of a Golden Age for adventure games, though this classification may be debated by those that hold nostalgia for text-only adventures or another sub-genre. In 1993 alone many noteworthy adventure titles like *Myst*, *Gabriel Knight: Sins of the Fathers*, *Sam & Max Hit the Road*, and *The 7th Guest* were released. All of these games were successful enough to garner sequels or remakes in later years. While the early 1990s saw success in refining what the ideal was for adventure games, the mid 90s is when many experimental techniques, like the addition of Full Motion Video (FMV) were used. *Phantasmagoria* used actors atop 3D rendered backgrounds to add realistic depth to the genre; later releases, like *Tender Loving Care*, took Interactive Fiction to a new level, using real actors to play pre-set scenes that were affected by player choice— essentially creating a full length movie in the process. Game budgets were expanded and many studios utilized the success of earlier releases to develop sequels of bestselling Intellectual Properties (IPs). Unfortunately, adventure game designers began to build on increasingly shaky ground. Studios attempted innovation within the genre while outputting less

successful games than in the past. This, coupled with increased competition by the emerging shooter market, only added to the causes of the eventual collapse.

From the late 1990s to early 2000s text and point-and-click games were on the decline. As consumers were able to purchase better home computing technology, 3D shooters began to take hold of the market, with titles like *Goldeneye 007* (1997) and *Half-life* (1998) being released to rave reviews. Roberta Williams, one of the founders of Sierra Online (now Sierra) and creator of the *King's Quest* series addressed this in an interview:

[...] back then the demographics of people who were into computer games, was totally different, in my opinion, then they are today. Back then, computers were more expensive, which made them more exclusive to people who were maybe at a certain income level, or education level. So the people that played computer games 15 years ago were that type of person. They probably didn't watch television as much, and the instant gratification era hadn't quite grown the way it has lately. I think in the last 5 or 6 years, the demographics have really changed, now this is my opinion, because computers are less expensive so more people can afford them. More "average" people now feel they should own one. There's also the influence of the game consoles as well. So most of these people have gotten used to shoot-em' up kind of games on the consoles. Now they want to get that kind of experience on their computers. (Pemberton, n.d.)

Some formerly well-received adventure titles attempted to transition into the 3D market, but Sierra's *Gabriel Knight 3: Blood of the Sacred, Blood of the Damned* and LucasArts' *The Grim Fandango* were examples of games with poor reception compared to preceding titles and poor sales, respectively; this only helping quicken the genre's demise. In an interview with Bret Mogilefsky, lead programmer for *The Grim Fandango* he states that adventure games pose problems "[...] other genres don't really need to address." citing the greater need for unique textures, assets, and animation compared to platformers and shooters during the same age. The inability to reuse this work may have led to longer development time and the scrapping of puzzles, as indicated later in the same interview (*Grim Fandango Remastered*, 2015).

Now, in the 2010s, even though there are computers and consoles that are able to process increasingly realistic high definition images, adventure games are still being produced. Part of this may be companies cashing in on nostalgia. Telltale Games, a studio consisting largely of the now defunct LucasArts' employees, released *The Walking Dead* (2012) to a mass of favorable reviews and high scores in gaming magazines and websites; they currently hold rights or have held rights to some of television and comics' most well-known properties like *Batman*, *Game of Thrones*, and *Fables* and are churning out episodic releases to a ready audience. Another reason that adventure games continue to survive may be due to the increasing ease of game creation; as it's no longer a requirement to know a programming language to create a game, so indie game developers and hobbyists can release games to rival bigger publishers (Irwin, 2008; Morris, 2014). Whatever the reason, these types of games are having a cult resurgence.

Interactive Fiction

Interactive fiction (IF) is a broad genre; the most widespread usage of the term refers to games that rely on text commands. Many IF games are text only, meaning no graphics are used, though some IF games utilize bitmap graphics or Full Motion Video (FMV) and text-based commands (Dictionary.com, n.d.). Interactive Fiction games are often adventure games like the aforementioned *Colossal Cave* adventure. In these text based IF games, the player is required to navigate through an environment often interacting with Non Playable Characters (NPCs), finding items, and solving puzzles— characteristics shared with graphical adventure games. Not all IF games operate in this way: escape games and some adventures will provide no NPC contact; some more narrative, “walking” based games don't require the use of items or puzzle solving; and games like *Softporn Adventure* eschew standard IF themes like dungeon exploration or mystery. Reaching their commercial peak in the 1980s IF games still see current development in the hands of indie studios and individuals. Many of these developers utilize relatively easy-to-use IF creation software and the relative ease of distribution available to small time game designers. Interactive Fiction and its cousin Visual Novels (a similar concept with few to no choices and a more traditional linear story structure) also remain popular in Japan and some other parts of Asia. Titles

like Phoenix Wright and Clannad are perfect fit for these nation's penchant for mobile gaming; where limited controls, less processing power, and smaller screens pose no problem to running the games.

CHAPTER 2: EDUTAINMENT, EDUCATIONAL GAMES, AND GAMIFICATION

Within the realm of education and gaming, three terms differentiating the purpose and context of games tend to arise: edutainment, educational games, and gamification. The goal of this section is to not only define these terms, but to show how gaming has evolved and integrated with educational practices, both in and out of the classroom. Examples of games and media that may fall under each category will be given for the purpose of clearer illustration; rather than more specific categorization.

Edutainment

A portmanteau of education and entertainment, edutainment can be understood as “entertainment (such as through games, films, or shows) that is designed to teach something” or may refer to the use of technology to assist in education (Merriam Webster, n.d.; Anikina & Yakimenko, 2015). While the concept of “education through play” has been around longer than the term edutainment— even reaching back to Ancient Greece—edutainment has a murky history, with some sources claiming it was developed as early as the 1970s and others claiming the 1990s (Saracho, & Spodek, 1995; Merriam Webster, n.d.; Rapeepisar, Wong, Fung, & Depickere, 2007). Often directed toward children’s media with a focus on education, edutainment can also be for adults. Some edutainment examples include: Sesame Street (and other PBS productions), Captain Planet, How It’s Made, and Freakonomics (podcast).

Educational Games

Educational Games are a subset of edutainment. Where edutainment covers other mediums like television, audio, and more, educational games are a game genre that cover educational concepts. While educational games are about learning or the attainment of a concept or set of concepts, these games are not all alike in their execution; however, rather than creating different classifications for each type of game, it is more productive to think them as part of a continuum, with education on one end, and entertainment on the other. The JumpStart and Math Blaster series would be examples of more education focused games, while Humongous Entertainment Titles, like Spy Fox and Pajama Sam are examples of games that are focused more on entertainment with incidental learning.

The JumpStart series was a widely used series of educational computer games that have been around since 1994 and are a somewhat well-known example of the genre. These games were made to correspond to skill sets designed around American grade school levels. The JumpStart games were centered on a main character that needed to accomplish a task or overcome obstacles. The player, using point and click commands, would guide the character around to stations where they would engage in games that used educational concepts. For example, the player might need to select the correct coins to buy an item from a vending machine with the exact change.

On the other end of the scale, some of the Humongous Entertainment games (Spy Fox and Pajama Sam, among others) are edutainment games with a stronger focus on story and plot development that require the user to engage in puzzle solving, usually in a point-and-click format, to solve problems to make progress. While these games did have a recommended age group, they were not necessarily as concentrated around public school curriculum as was seen with the JumpStart series.

Educational Games like the examples given do not necessarily have the market presence that they did in the mid-1990s and have somewhat fallen out of favor. Nevertheless, games and entertainment that have a focus on puzzle solving, physical coordination, and memory are still being developed and sold (Klopfer, & Osterweil, 2013).

Gamification

Gamification is not about “game design” or games themselves, but refers to the application of gaming *concepts* to real-life activities and tasks, for example, the application of points and comparison between peers to real-life activities and tasks. Games, and in turn, gamification, have their own rhetoric and the persuasion or change of ideology of individuals toward specific tasks is the goal (Bogost, 2010; McGonigal, 2011). These elements are used to create a sense of investment in the task at hand and may increase user motivation. While the idea of gamification has been around longer than the word, the term was coined by Nick Pelling, British computer programmer and creator of both Frak! and Duke Nukem 3D (Marczewski, 2013; Pelling, n.d.). References to gamification have gradually increased, helped along by events and workshops, like the Gamification Summit (Zichermann, n.d.). Organizations are utilizing

the concepts of gamification to motivate members in goal achievement (Zichermann, & Cunningham, 2011; Dubey, 2016).

Examples can be found across the internet, in the increasing use of badges, points and levels in a variety of websites. Valve's Steam Gaming Platform encourages users with an account to complete tasks during events, by inviting friends, checking going to certain pages, and writing reviews (M, n.d.)(FIGURE 2).

This effectively causes users to invest more time on the website to level up their account by collecting badges.

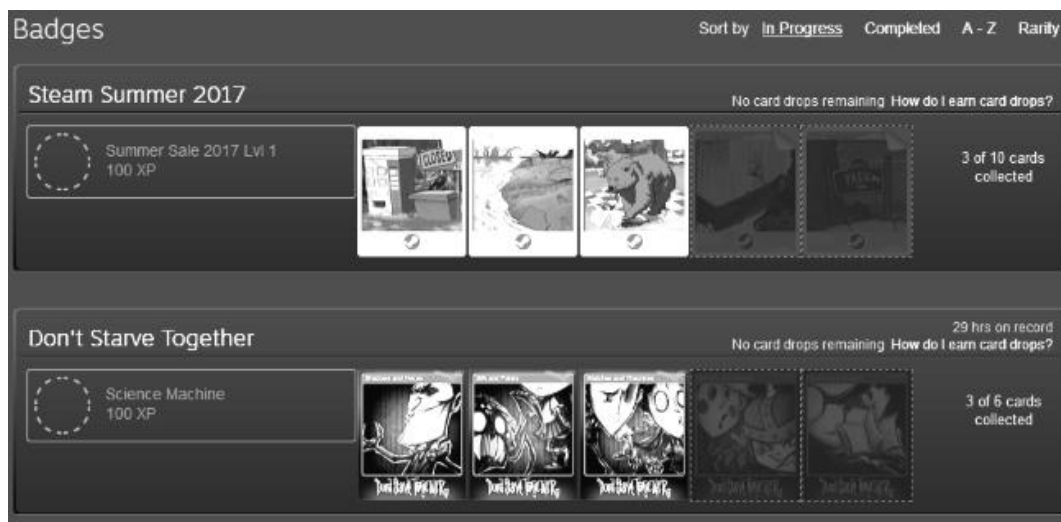


Figure 2. Steam badge collection interface. In Valve's Steam Powered Store, users can collect cards by playing games and trading with other users to create badges.

Similarly, businesses and universities are using badge resources for employee and customer motivation. Bunchball and Badgeville both provide services to businesses to integrate badge finding and procurement into their website. These small digital icons tap into the psychology of collecting, encouraging the user to complete sets along with their peers by utilizing scarcity and encouraging users to seek rare badges to display prestige to peers (Simonson, & Lee, 2015). Zynga and Groupon are other companies that create a sense social competition and attachment for customers by utilizing badges, points and leaderboards to foster competition and increase engagement (Zichermann, & Cunningham, 2011).

The power of gamification to incentivize engagement has not been lost on educators. Khan Academy, a free to use learning resource containing lectures on subjects from mathematics to music, utilizes the badge system to illustrate subject mastery. It also encourages the “students” of Khan Academy to return daily, by awarding achievements for logging in to the website over a certain period of time. Public schools and universities are following suit. Teachers are incorporating badge systems into the classroom to show performance achievements. McGraw Hill publishing’s “Connect” platform has online activities to accompany textbooks; these activities often display a score and leaderboard, so students can compare the points they’ve earned to their classmates’ scores or to their own personal best. The use of achievements has been shown to improve student performance by allowing them to reach tangible goals before the end of the course (Ames, 1992; Archer, 1994).

There are still, scholars that believe gamification is too far reaching. Dr. Ian Bogost, professor and award-winning game designer believes that some organizations are using gamification as a faulty facade to cover up average business practices by using the “mysterious” appeal of games (2011). Likening gamification to exploitation, he is not alone in his criticism. Software designer Adam Loving, not as harsh a critic as Bogost, still notes that bad gamification practices can hinder customer usage and add “complexity” where it is not needed (2011). Jane McGonigal, a game designer, PhD in Performance Studies from The University of California Berkeley and proponent of using gaming rhetoric in behavioral modification has shied away from the term (2015; 2011). More research on the gamification of education will need to be done to show conclusive data, as there are currently a mixed bag of results as to whether it is a positive element to pedagogy (Hanus, & Fox, 2015; Slota & Young, 2014; Berkling & Thomas, 2013; Kuo & Chuang 2016; Cronk, 2012). Whether gamification in the classroom provides for student growth and learning incentive may in-part lie with the instructor’s investment and the appropriateness of the application (Pearson, & Moomaw, 2005; Firestone & Pennell, 1993).

CHAPTER 3: ESL TEACHINGS: OVERVIEW AND GAMING CONNECTIONS

Reading in an ESL Context

Reading in classrooms is done for a variety of purposes. It may be done for pleasure, to find specific information, for information analysis. But the reading process and accompanying texts are not the same in all cultures. For ESL teachers, this means contending with traits and habits that their students acquired from their L1. For example, in some Japanese texts, the characters are aligned from right → left, in vertical columns. If you were to pick up and open an Arabic book the same way as an English book (from right to left), you might find that you are starting at the end; and these are just physical differences. What cannot be seen also produces a lasting impact on a learner, like their ingrained cultural attitudes and perceptions (Dörnyei & Ushioda, 2010; Dörnyei, et al., 2012). Since language learners in an ESL context will be arriving with diverse attitudes on reading, it is important to be aware of these differences when preparing reading activities for them. Students from oral cultures (like, Samoa or Morocco) may need more effort to “buy-in” to the advantages of reading, but may bring valuable assets like a stronger memorization ability (Field & Aebersold, 1990). Culture groups, small and large, present information differently and even within the same language readers may need practice to adjust to these differences (Connor, 2011). For teaching LLs, one must go beyond grammar and interpreting the symbols on the page. Like speaking, the student’s background will play a large part in how they adapt to the process.

Extensive Reading

Extensive reading is often what people think of when the purpose of the reader is pleasure. The reader glides through the book, taking in the content, but not focusing on the minutia. This is contrasted with intensive reading, the slow, more methodical sift through a text where the reader is interested in acquiring information. While these types of reading seemed opposed to each other, they actually succeed in complimenting each other (Hedgcock & Ferris, 2011). Students may find they can develop additional reading skills like skimming and scanning to locate details when using intensive reading for a passage;

while extensive reading will help with vocabulary and can help increase reading speed. Extensive reading can still be partnered with activities to check comprehension, as long as the aim is focused on reading fluency. Classroom reading activities can range from a teacher assigned text to a student selected text. The most important aspect in reading for pleasure is that the material is interesting for learners (Robb & Susser, 1989; Hedgcock & Ferris, 2011). Discussion and class activities can provide some stimulation for students as it encourages social proximity and comradery.

Incidental Vocabulary Acquisition

One of the advantages to increased participation in extensive reading is the potential for incidental vocabulary acquisition (Coady & Huckin, 2003). Readers do not necessarily enter a text with the expectation of acquiring vocabulary, but may find that they learn new words as they progress through a text. The frequency of vocabulary plays an important part in the acquisition as more input tends to produce better recall (Rott, 1999). However, this does not necessarily control for student's interpretation of the meaning. Books are not the only source for vocabulary, as television and video games have been shown to yield positive results (DeHaan, Reed, & Kuwanda, 2010; Chen, 2012; Kuppens, 2009). Vocabulary activities may be used alongside extensive reading tasks for students to better understand the passage achieve the best learning outcome.

SLA and Gaming

Second Language Acquisition refers to the gain of an additional language (L2) aside from a person's first language or L1. While sometimes L3, L4, et cetera are used for multilingual speakers to denote languages outside the L1 and L2, for the purposes of this paper, I will use L2 to refer to any language acquired outside of the first language, regardless of whether it was the second language learned (Cenoz, Hufeisen, & Jessner, 2001).

For children and adults, language learning is decidedly different. While many scholars agree on this, the specifics, like the critical period and age related constraints are still under debate (Hakuta, Bialystok, & Wiley, 2003; Snow, Hoefnagel-Hohle, 1978; Newport, 1990). This is an asset in language learning held by entertainment media, like books and video games; they hold the power to cross age

boundaries that classroom strategies alone may struggle to accomplish. While there may be a difference in the content of a given video game or book, it need not be a requirement to the reader's comprehension success. The Harry Potter series and the Chronicles of Narnia are both series created for children, but had found popularity with older audiences as well (Publisher's Weekly, 2012). It is just as easy to find adults as it is to find children playing games like Minecraft and Portal cooperatively or on their own. Because of this, there is great potential for players of these games that may yet be untapped by teachers and game creators.

Past and Current Endeavors

One popular example of language learning technology is Duolingo. Duolingo certainly is not the only web resource of its kind, but with the claim of over 200 million members all across the globe, it is one of the most well known examples. Duolingo is a cross platform language learning software designed to use short, repetitive practice sessions that purport to cover the four skills, reading, writing, speaking and listening (Settles & Meeder, 2016; Duolingo, n.d.). It makes use of techniques from other spaced repetition models, like the Pimsleur Method, Duolingo uses "half-life regression" which attempts to reduce error rate, increase engagement, and identify which linguistic features students are more likely to forget. These strategies have been proven in the past with other media, like television commercials, where short, simple words are often repeated ad-nauseum by a narrator as they appear on screen along with a catchy jingle (Flesch, 1983). The repetition and drilling activities from traditional classrooms and textbooks may be frustrating or dull for some learners, but they do have a place in language learning. Teachers should look to incorporate repetition and rhythm strategies in such a way that they gain some contextual, semiotic value.

While not a game itself, the Duolingo website is not shy in declaring that they employ on gamification for language learning (see the previous chapter for an explanation of *gamification*). This is in line with other non-game technology based language learning products, like Mango Languages which use gamification concepts to propel language learners. Duolingo also boasts about their effectiveness, claiming that their courses are equivalent to a semester in college. Whether that is true or not, and even if

is not exactly a game, Duolingo still incorporates some potent language strategies that have been proven successful (Streeter, 2015; Settles & Meeder, 2016).

It is worth noting that most of Duolingo's effectiveness claims are based on the performance of the Spanish program and at the current time, they seem to focus their hiring efforts on fluent speakers of Spanish (Vesselinov & Grego, 2012). This is not to discredit Duolingo's other programs, but in future development endeavors, it would be prudent for those interested in using Duolingo to look specifically at this program. The framework may be the same for other languages, but there is less data on their results. Stephen Krashen notably agrees with this, mentioning that while Duolingo does harbor evidence of effectiveness, their focus on conscious learning may not be the best method; he also cites the atypical demographic used in the study as something that is not referred to in Duolingo's publicity materials (Krashen, 2014).

Word substitution, is another strategy sometimes used in children's edutainment TV programs. In this case, the show or game engages in one language (presumably the speaker's L1) and substitutes words of that language for the target language. While this is a noble attempt at gradually transitioning a learner to an L2, problems arise in regard to syntax and pragmatics, among other issues. With syntax, attempting anything past a word to word trade becomes problematic when the target language does not share the same order. For example, [American] English is regarded as a language that follows the Subject-Verb-Object (SVO) word order, an example of this might be, "Alexis [our subject] ate [the verb] pizza [a delicious object]". Let's say a game wanted to transition the player into Japanese, a language that functionally uses the SVO order (M. Sadler, personal communication, August 10, 2017). Here is how the player might see

Alexis ate pizza.

アレクシスはピザを食べました (*Alexis pizza ate*)

Already, it can be seen that a word for word translation would not yield the same order. It becomes necessary to translate in chunks, at minimum, lest the player become confused and start producing the equivalent of "I pizza ate." in English. The substitution method may work for beginners in

an immersive setting, but will ultimately result in regression by promoting the grammar-translation approach and shoe-horning in words one-by-one without regard to semiotic domains (Gee, 2007).

Although Japanese has a flexible order and colloquially, does not strictly follow the rules that are commonly used in examples like these-- something that could be said for many, if not all languages. Yet, this simple formal structure is what is often used in classrooms and textbooks, like Genki Japanese and Minna no Nihongo to give students a basis, not unlike the sometimes rigid textbook English that L2 learners are often accustomed to. If the simplistic nature of this example can illustrate an issue to be had with substitution, then certainly it will not become less apparent as sentences become longer and meaning more nuanced.

Current Educational Game Literature

Current research in educational games often focuses on the social aspects of gaming for language or simulation for specific tasks; many articles citing the social connection that online games, such as Second Life or World of Warcraft provide to language learners (Sadler, 2012). In these multiplayer situations, LLs are provided an environment where, “language learning [is] more contextual, similar to the experience of total immersion in a foreign culture” (Waters, 2007). This focuses on contextual language learning which pertains to the social knowledge aspect of Communicative Competence (Hymes, 1966).

Although multiplayer games are increasing in number and popularity, some gamers say that they continue to participate in single player games for many reasons, including the lack stress of online chat, no risk of servers being shut down, and a work at your own pace environment (Thang, n.d.; Stuart, 2014; Reiner, 2016). This is not to say that the use of online or multiplayer environments for educational purposes should be abandoned, but rather that the merits of a single player environments should be studied more. This may seem at odds with the communicative method, but having language learners perform communicative acts in a single-player environment is possible. Chatbots are an example of AI that, while imperfect, are a readily available resource to those with an internet connection. Chatbots are computer programs that, through either voice or text input, can simulate a conversation. While they may

not be thought of as the most realistic product, there have been incidents since their creation of being confused with a real person. The inclusion of chatbots could be a useful addition to a language game, especially one focusing on speaking practice.

With the use of Interactive Fiction, it is possible to present an authentic text to language learners and have them not only produce language to interact with the environment around them, but also to provide Non-Playable Characters (NPCs) that are not constrained by the bounds of a topic in a grammar dialogue activity. This further complements the communicative approach method of having goals to motivate students. As LLs progress in the game, they may be given touchstones or cues to provide a sense of orientation towards a section, while at the same time they will have had to perform language learning tasks, like reading and writing production. This gives the learner an opportunity to hone their language skills both in and out of the classroom using the target language in a contextual setting, all indicative of Task Based Language Learning “best practice” (Hymes, 1966; Si, Pisan, Tan, & Shen, 2017; Nunan, 1991). In this way, the communicative approach has some parallels with game design theory: players should be given tasks that are just difficult enough to complete that they are provided a challenge, but not so difficult that they can’t complete it— $i + 1$ (or $i - 1$ in the case of extensive reading). Once completed, players should be given something to perceive a sense of accomplishment and maintain motivation. Along the lines of motivation, the story should be interesting enough to provide a pleasurable experience for the player. Not every story will be interesting to everyone. There may need to be a wide variety of genres to capture and maintain learner attention until they find their niche, just as with traditional reading practices.

Video games present another way to combat second-language attrition. While other forms of media like television, books, and music provide input to the learners, they fall short when it comes to satisfying either comprehensible output or interaction. In the current stage of gaming technology, text based games are one of the best ways to allow the player some flexibility in their dialogue and interactions with other entities in the game. Many video games presently provide preset dialogue choices for the player to choose from (FIGURE 3).

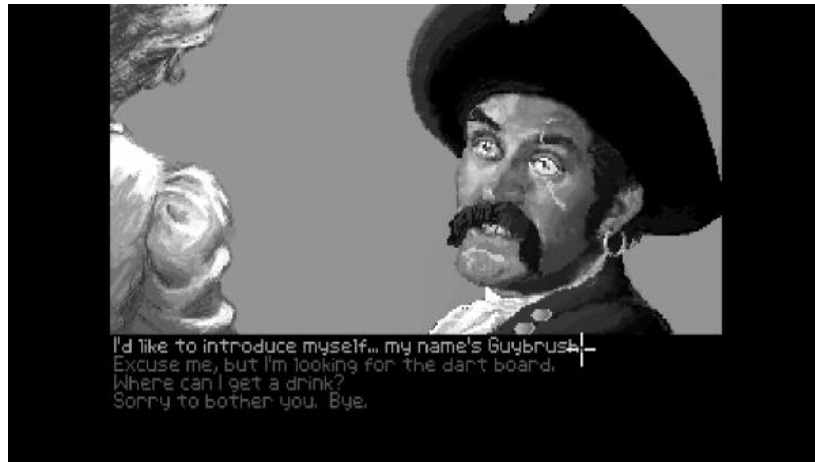


Figure 3. Dialogue choice example. This screenshot of “The Secret of Monkey Island” shows a player selecting from preset dialogue choices to communicate.

These forms of simulated communication are certainly not enough to completely substitute for other forms of human interaction, yet with the growth of Artificial Intelligence (AI) and commercial Virtual Reality (VR) machine’s like HTC’s Vive and the Oculus Rift games can only become more enveloping as technology continues to improve. With this increased immersiveness, players will be able to practice communicating in a relaxed, inclusive setting to give them the confidence they may need to readily communicate in the non-virtual world.

CHAPTER 4: CINEMA ADVENTURE

Storyline

Cinema Adventure is a single player, Interactive Fiction video game. Created for Intermediate English readers using the ACTFL guidelines, Cinema Adventure is designed so that NNS may have time for extensive reading both in and out of the classroom (ACTFL, n.d.). Employing a non-linear storyline with problem solving elements, Cinema Adventure builds a dynamic environment focused on extensive reading and incidental vocabulary acquisition. Cinema Adventure is a game set in modern day United States, though this is not explicitly stated. It focuses on the player, an unnamed protagonist who regularly visits the local movie theater and wishes to go for the last day of a special series. Players are encouraged to explore the area (FIGURE 4) and complete authentic tasks (like buying a ticket) related to being in that setting, though they are not forced to complete these tasks to progress. The base story is simple to navigate, but the player is able to explore the environment in depth by searching objects mentioned in the room descriptions and other text to discover hidden gems, like a working in-game arcade machine.

Map — A map of the world

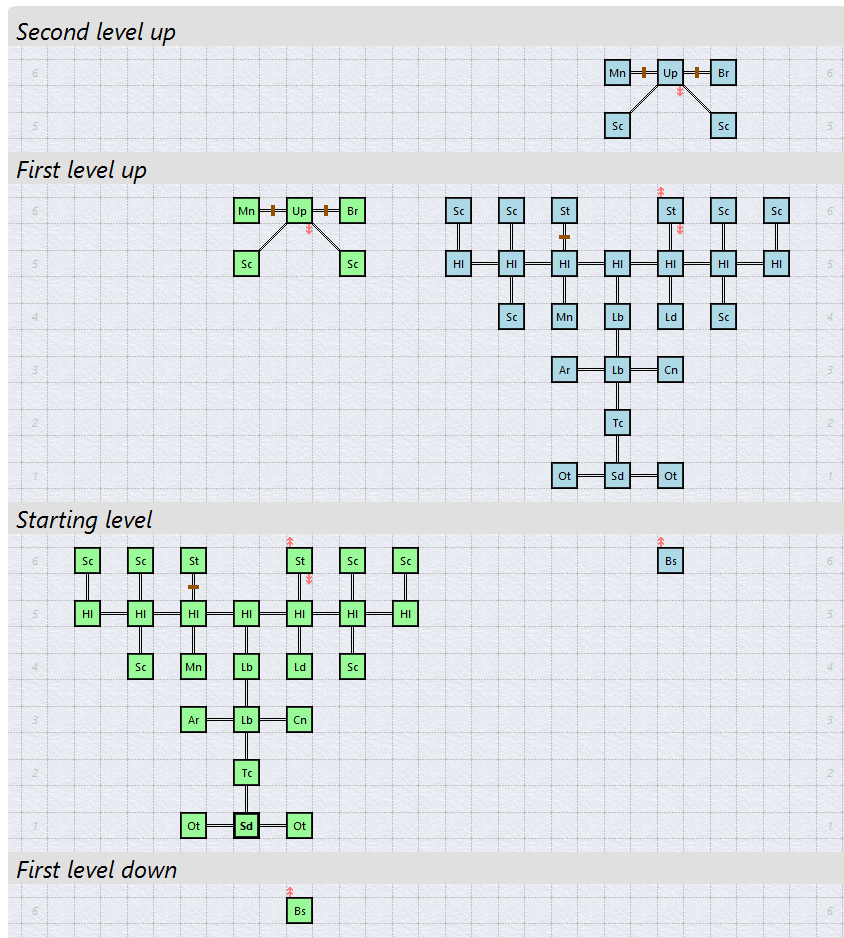


Figure 4. Cinema Adventure Map. This map shows the size of the game’s map, with lines representing points of entry/exit.

Beginning on a description, the player is given some backstory as to why they are at the theater, then the title is shown. The player gains control of their avatar at the sidewalk in front of the theater. They can explore the outside environment in the area immediately surrounding the theater and interact with a variety of objects mentioned in the text, like posters or the plants outside of the theater. They are able to interact with a ticket machine to learn more about the movies being shown or enter the theater and explore other available areas, like an arcade or the concessions. The player has a limited supply of money, which they can spend on food or tickets. Non-playable characters roam the cinema and will

interact with the player when prompted. A loud speaker system is present to give the player ideas what to do next. Because the game was split into two parts, this release of Cinema Adventure (part I) acts as a sandbox tutorial, allowing players to explore and familiarize themselves with the environment and innerworkings of the game (e.g. the dictionary or purchasing system).

Educational Justification

Cinema Adventure, especially when considering the development process, is clearly an educational game. It involves focusing on the language development of the user and creating an environment to encourage extensive reading, problem solving, and vocabulary acquisition. Even so, in this game and the others listed, the entertainment value should not be underestimated. Making sure that the content is interesting is as important as making sure that students are engaged in reading a physical book, fostering positive outcomes like increased interest and time spent reading (Kamil, Mosenthal, Pearson, & Barr, 2000).

Cinema Adventure is not specifically designed to be integrated into a gamified classroom, lacking a point structure, leader-board, badges or achievements, and a multiplayer environment to foster competition. It lends itself, rather, to increased social proximity. If the instructor were to encourage students to share hints or help each other it would accomplish some of the goals of gamification, while also providing a lower stress environment for those that may be less inclined to competition, a culturally influenced value (Brant, 1990; Yuan & Shen, 1998; Smith, Peterson, & Schwartz, 2002).

Since the goal is to create a task that will either supplement or stand in for more traditional extensive reading methods, the text based environment of IF allows for conventional reading and vocabulary strategies to be implemented. When selecting what level of language to use in the Cinema Adventure, the American Council on the Teaching of Foreign Languages (ACTFL) guidelines were followed for the target group. The guidelines provide a measurable basis that would make incorporation into a language classroom more accessible for teachers and administrators, by having a standard that is linked to other language proficiency measures and tests like the Common European Framework of Reference for Languages and the TOEFL exam. The level was determined by description of both the

speaking and reading components which note that while intermediate learners may have trouble expressing concepts like chronology, they should be able to function in basic survival situations or within familiar domains.

The specific vocabulary chosen consists of 37 words and phrases, including spelling variations, listed in APPENDIX C. These words were chosen, because of their specific relationship to the cinema setting; since the ACTFL guidelines don't specify certain vocabulary for students to know before progressing to the next level, I had to use my best judgement and prior teaching experience in the terms and register being used. For this reason, the words in the in-game dictionary are all content specific. In future iterations, it could be even more beneficial for students to include non-content specific words in the dictionary. These "extra" words do not need to be set apart in the text, but would exist to facilitate easier review and could help prevent students from using contextual clues incorrectly when inferring a definition. All words that relate to a dictionary entry are italicized to differentiate them from the surrounding text.

Technical Information

Inform 7

Created in 1993, Inform is a design system and programming language made specifically for Interactive Fiction. I chose to work with Inform (version 7) based on the recommendation of my project advisors. Both Dr. Randall Sadler and Dr. Judith Pintar (n.d.) have had previous experience with designing and or implementing Interactive Fiction for both edutainment and casual play. Inform is different from many general-purpose programming languages like C++, BASIC, and Perl in that it operates in plain English sentences and is "designed to appeal to writers without extensive programming experience" (Nelson & Short, 2013). These languages also generally require the use of a compiler to convert high-level code written by a designer into a low level (binary) code for machine processing (Technopedia, n.d.). Inform acts like a complete package, allowing the use of "natural language" for writing, a compiler, and an environment to run the finished games both on the web and off. Finding a game creation program with a low learning curve and relatively simple to use interface may be of

importance to teachers interested in classroom game design who are not familiar with game design or programming knowledge. This allows exploration in game creation for their classroom in a manner that gives the option for extensive customization for the lesson topics.

In Inform, game spaces are based around “rooms”. While readers may associate a room with an indoor, purpose specific place—like a bedroom—that is not quite the same as a room in a text game. In this case, a room is just a unit of space in a game. It doesn’t have to be of a defined shape, though the standard method of navigation involves using cardinal (North, South, East, West) and intercardinal or ordinal directions (North East, North West, etc.). For this reason, many, including myself, map out games using a sort of grid style, either using adjacent squares to represent connections or connecting squares via lines or arrows. Below (FIGURE 5) a room is shown; on the left you can see how it is made. The rooms in this game tend to be constructed similarly, though not all elements (like a printed name) are required for them to work. TicketCounterNormal and LobbySouthNormal are both shown. Since they are not the first rooms in the game, they are given locations relative to the placement of other rooms, e.g. RoomName is south of OtherRoom. Because Cinema Adventure’s map is quite large, all rooms are given unique, descriptive names, usually describing the function and relative location. Because these unique names are not very attractive when shown to the player, rooms are given printed names that will show up on the player’s screen, like how LobbySouthNormal becomes “Lobby – South”. Then a room description is given, often this includes a description of the room’s appearance and the directions a player can go to navigate to other rooms. It may also include mention of items or other interactable objects.

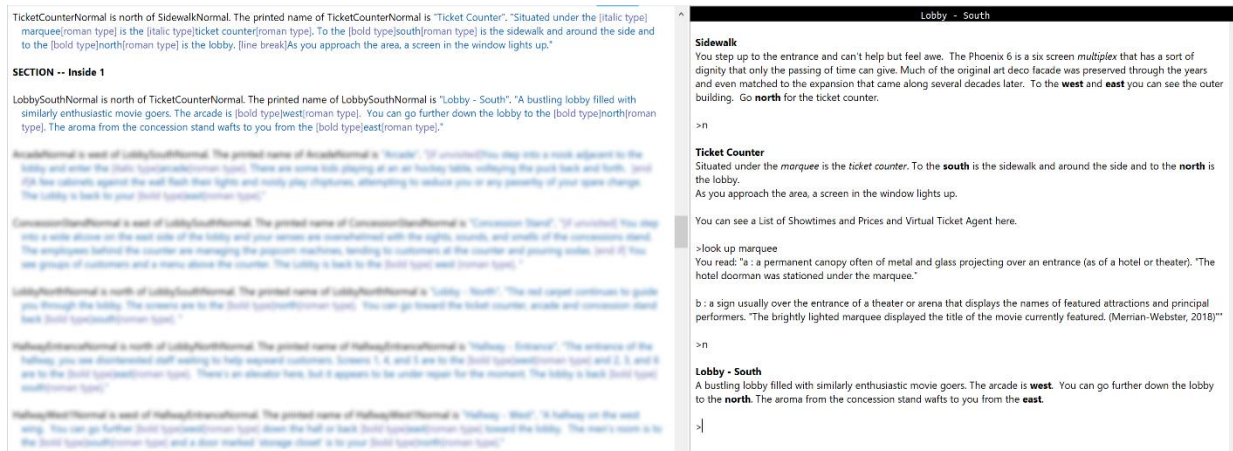


Figure 5. Room in Inform. This screenshot displays the inner and outer workings of two rooms.

On the right (FIGURE 5), you can see what a player would see when that room is printed up. They do not see the actual room name, only the printed name and description. Even for small maps, it is a good idea to give rooms unique, easily identifiable names, with no spaces both to minimize error and to facilitate searching for the room when needed. Directions, like words that can be searched in the dictionary, are also set apart from the room description text through the use of bolding. This will also help players revising areas easily skim for directions if they need to quickly navigate to a different area of the map.

In-Game Dictionary

One of the unique features of this game is the inclusion of a dictionary, integrated into the player's in-game cellphone. This was done to lessen the chance of poor definition interpretation via contextual clues. The dictionary was integrated with the phone, to make the use of a dictionary more consistent with what a player might do in their real life, that is, I wanted to reduce the meta elements that might take the player out of the gaming experience when possible. A screenshot of the dictionary is shown in FIGURE 6. On the left is the action, defining, that the player can use to look up the word. Below that are the rules Inform uses to check and carry out the action if it works. Finally, the table of words that is searched when a player chooses to look up a word. On the right, is the room description

where an italicized content word appears and the result when a player looks up a word, in this case marquee.

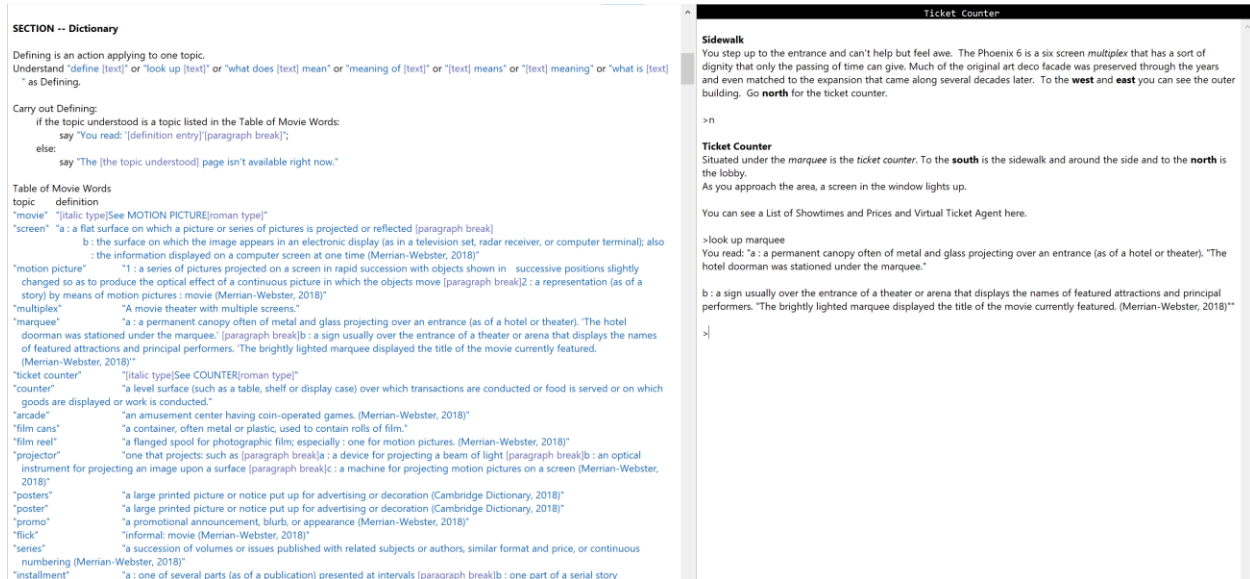


Figure 6. In-Game Dictionary. This screenshot shows the inner working of the game's dictionary feature and what the player will see.

System Requirements

Although Inform 7 games can run offline, I decided to make a web version of the game and upload it to a personal web space. Inform can automatically create a folder of the game (in JavaScript form) and related materials in a way that is ready to upload to web space. This means that teachers or individuals looking to create an Inform game will either need to decide to run it offline in an Inform friendly environment (i.e. have the compiler saved on the computer) or get web space and host the game online. Running the game online means that the user will need to have access to a computer and steady internet connection, most current web-browsers are capable of running JavaScript if the user has not deactivated it. The lightweight nature of text-dominant games may present advantages in terms of loading times and it will be up to the user to determine how much they can or will change the interface via CSS.

It is possible to play Cinema Adventure using the source code presented in Appendix A; this is similar to how learners creating their own games in Inform might play each-others game's offline. First, one must download Inform 7. When opening the program, select a new project. Then paste the code in the left side window and choose the compile option on the top left of the screen. Inform will then compile the game and run it on the right side of the screen, unless the windows are changed from the default view. A player can then run the game, adjust the code, and view maps that Inform generates of the available rooms.

Process & Reflection

Anyone can go to the library or an online and find resources on how to create a game, but knowing where to start in the gaming building process was a large hurdle to overcome. Because of this, the process undertaken for Cinema Adventure should not be used as a model to follow, but rather as a log to be analyzed. The following is a first person reflection that consists of a journal kept during the creation process, beginning in August of 2017.

The first step in this process was deciding to take it on as a solo project and attempt to plan the game. During the initial months, I joined a class taught by my committee member, Dr. Judith Pinter, where she taught a course on the design and programming of interactive fiction using the Inform 7 language. I developed what would be known as Cinema Adventure as my final project in the class. During the course of this class, I resolved to engage in extracurricular reading that could be applied to game design; including some of the readings referred to in this paper. When comparing books on game design although basic information seemed to be consistent across all guides, the order of presentation or contextual information seemed to differ. Some of the most popular titles were found to include sections on mechanics, designing the player interface, and tips for turning a game into a player experience. Maybe not so surprisingly, these guides also cross-over into, or take cues from board gaming and amusement parks (Schell, 2008; Rodgers, 2014). There were certain "other" topics that weren't covered in any of the readings, either much in-depth or at all; this included naming a game, information on writing documentation related to playing (manuals or help), and project coordination without a team. After trying

to find resources within the university or online I found that these topics are either not considered or are built in to another discipline and would be taken-up by a member of the development team in a larger project. At this time, popular commercial games being built by a single person are less common than not, which made finding information on solo-development difficult.

During the course itself, I was able to engage with other students creating IF and working on a larger collaborative game. This allowed me to develop coding skills and improve my writing through repeated practice. As learners, we were responsible for participating in regular bug testing on each other's products. This was both helpful as a recipient (I learned what was wrong in my game) and as a giver (the more games I played, the easier it was to think of what could go wrong in my own). Although I was fairly confident in building a story or setting, despite my lack of experience in fiction writing, my weak coding skills caused some anguish as I tried to meet my personal expectations for mastering the mechanics.

During the latter half of the semester, I was, through university connections, able to reach out to educator and content creator Lorri Hopping (n.d.). During a personal meeting, she demonstrated her own computer games for education and showed interest in my game. She advised me to make it more focused in scope, noting that elements like setting and the premise for its creation should be questioned to make sure the product that is produced is appropriate for the audience. Most specifically she recommended that the game be split into two distinct parts, in an episodic manner, to build engagement with its potential audience (L. Hopping, personal communication, 2017). It was then that I decided to focus on the first “simulation” half as the illustrative case for this thesis. Although bug testing was done in the fall, there were still many small elements of the game that needed to be refined. Fixing the final errors took another few months and brought the total production time to seven months.

Over the course of these seven months the game building process was split into a few distinct parts: high level planning, lower level planning, learning to code, mapping, prototyping, testing, and correction. The planning stages are where I came up with the idea for Cinema Adventure. The setting was chosen from a set past lesson plans I’ve prepared for intermediate learners. Initially, I looked at having the setting in a university or generic town, but those ideas didn’t satisfy the target scope, either by

being too narrow or broad. Once I decided what the aim (teaching reading and vocabulary) and target setting were, then I began to work on more specific elements. This included deciding on how heavy the game would rely on a narrative, what sort of text based tropes would be included, and whether to use real movies or made-up titles. This overlapped with learning about the Inform language and environment as some elements were created or discarded to best use the tools provided. Mapping out the environment was also important as the physical layout would affect the way players explored. I used plans from real theaters I've visited and combined common elements to create a building of my own imagination; but one that should also evoke some feelings of familiarity, because it echoes how a "real" theater might be organized. I made sure to completely map out the building before putting finger to keyboard and creating rooms. Because the layout would also affect room descriptions and navigation, I used grid paper to create a visual and then began creating rooms. After this, I added in items and then people in separate sections. This is not a requirement, rather something of my own volition; I found that my code was very easy to search if a specific element needed to be changed. After the skeleton was created, objects and "people" added in, I collaborated with a small group who were also creating games in Inform to bug-test. We played each other's games and wrote down problems we encountered. This is a very cyclical part of the process. You receive feedback, correct, and send it to others for more feedback. This could also be done with friends, the prospective audience, others in game development and should be shown to a wide audience to receive the most thorough feedback.

Outcomes

Because I chose to concentrate on the first episode of a longer, serialized project, this prototype game is shorter than I had first envisioned and as a result, there is less total content. At 31 working rooms and 106 items, however, it still has a sizable area to explore and a significant number of objects and NPCs with which to interact. Because this episode is a simulation, it does not contain puzzles. These will be key features of the second episode, which will so be more narrative heavy. The emphasis on simulating a natural language situation, rather than creating narrative puzzles could be seen as a positive or negative design feature. Those who consider extraneous puzzles to be a detriment to assessing a language learner's

progress will see merit in focusing on the simulation aspect. Still, learners may not be as interested in playing something as tame as a simulation, rather than a more traditional IF with adventurous, puzzle-solving elements. I plan to incorporate puzzles in the next installment of the game, and as I gain skill in advanced aspects of the Inform 7 language.

During the time that of the game's development (over an 8 month period), I was taking courses full-time (approximately 12 hours every semester) and teaching one section of a three hour course. I mention this because while those involved in the game industry can work on a game full time, educators may be discouraged by the prospect of taking on "another job" on top of their teaching duties. It would be false to suggest that it won't be time-consuming. Taking on a games development isn't a light project, but the motivation of the creator may determine the speed at which the project is completed or the enjoyment that is garnered from the process. Additionally, skills held prior to beginning the project (e.g. writing, graphic design, programming, etc.) also make a difference in which aspects of development are easier to progress on. For those that are not confident in their skills, but still wish to pursue game creation, rather than using an existing game, collaboration may be an option to reduce workload; however, this will depend on both the project and the creator's connections. Teachers that are proficient in literature, for example, may look at collaborating with programmers or graphic designers from other disciplines. This is in alignment with current pro-collaboration sentiment held within much of the digital humanities community (Schreibman, Siemens, & Unsworth, 2016). Even if a game can be completely made by one person, it may be more efficient to collaborate or may present the opportunity to develop a better game entirely.

CHAPTER 5: MOVING FORWARD

Cinema Adventure became an adventure in itself to complete and is a very small speck in IF, let alone the gaming world as a whole. However, as IF gains a small resurgence through independent development and small studios one can hope that those invested in the future of the genre will help to secure it a place in the academic realm. As an IF simulation, Cinema Adventure plays a part by delivering a new experience to the students it reaches and leaving the legacy of its development to support educators wishing to similarly engage with learners using the gaming medium.

Teachers and other educators reading this may find that game making is not a project they would like to begin for their own classes, and that is okay. Volunteers in small programs or those who find their lesson topics constantly in-flux may not find that creating a full-game for their class is a worthwhile endeavor for whatever reason. There are many game and game-like products on the market waiting to be picked up. Arming yourself with some knowledge on how these games work and how to use them to their full extent is important in making sure that this technology is being utilized to best serve student and classroom needs rather than to shoehorn in the latest and greatest product. Those that do choose to create or collaborate on a game creation project should be prepared for the process ahead and can anticipate some of what they might go through by using the process notes in this paper.

As a language learning product Cinema Adventure is important in furthering the connection between literacy and digital literacy. Teachers are aware that often students are comfortable learning using digital tools, such as Duolingo (mentioned previously), but need a pedagogically sound reason to incorporate games and tech into the classroom. Games developed for educational use, either as part of a curriculum or as a standalone product, can help to satisfy these needs by building an environment that promotes play, all while incorporating a strong pedagogical foundation. This particular project is meaningful in pushing not only IF, but gaming forward as a medium worthy of academic study.

Although there is work being done on games in education, there are still gaps between research and practice to be filled. Games have come a long way in terms of development, but aren't something

that all teachers are ready to incorporate into their curricula; conversely, teachers that are ready to implement games in the classroom, whether made by the teacher or preexisting, need to take care in thinking the process through in regard to planning and implementation. Interactive Fiction in particular and its benefits and pitfalls, both as a process and product, are not well documented.

The next step in the development of Cinema Adventure would be to conduct research to determine the effectiveness of Cinema Adventure as a classroom tool. In addition to having evidence of the effectiveness of such a game, teachers also need a detailed guide on how to implement them in the classroom. As more advanced technology becomes readily available and accessible for both classroom and personal educational use, it is imperative that researchers involved in this process align the needs and abilities of users, creators and implementers. IF takes advantage of more widespread technology without dominating resources. Although Interactive Fiction may not utilize the flashiest technology, text as a medium is not something that we will see going out of style anytime soon.

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APPENDIX A

SOURCE CODE

When play begins: say "[bold type]Lights! Camera! Action![roman type]

[paragraph break]

The local movie theater, The Phoenix 6, is running a month-long special called 'Classic Sundays' where old movies are screened on the weekend. At these evening events, nostalgic adults and starry eyed youngsters can engross themselves in the glory of 'moving pictures'. You've been taking advantage of the special's discounted ticket price to get out of the house on the weekends. Today is the last day and you wouldn't miss it.

[paragraph break]

The warm buttery smell of popcorn, the splash of soda from the fountain into your cup, and the rip of a perforated ticket. The siren song of the silver screen calls.

[paragraph break]

You grab your things and head downtown";

pause the game.

After printing the banner text:

say "[fixed letter spacing]

[line break] _____ _ _ _ _

[line break] / _ _ () _ _ _ _ _ _ _ _ / | _ _ // _ _ _ _ // _ _ _ _ _ _ _ _

[line break] // // _ \ _ \ _ ` _ \ _ \ // // _ // // _ \ _ \ _ // // _ _ \

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[line break] \ _ // // // \ _ // // // \ _ , // // \ _ , // \ _ \ _ // // \ _ \ _ , // //

\ _ /

[variable letter spacing][paragraph break][bracket]Press any key[close bracket]";

wait for any key;

clear the screen.

Rule for printing the banner text: say "An Interactive Fiction Reality by Alexis Kim: [paragraph break]" instead.

SECTION -- Debug Tools

Teleporting is an action applying to one visible thing. Understand "go to [any room]" as teleporting. Carry out teleporting: move the player to the noun.

Release along with an interpreter.

SECTION -- Scenes

SECTION -- Inventory

The player carries a wallet. The description of the wallet is "A gently worn leather wallet hold your necessities."

Understand "pocketbook" as wallet.

The player carries a phone. The description of the phone is "Not the newest model, but it does what you need it to. Since you just moved here and don't have a car, sometimes you call your friends for rides. The dictionary app is especially useful when you want to LOOK UP or DEFINE a word."

Understand "cell phone" and "cell" and "smart phone" and "telephone" as phone.

The player carries keys. The description of the keys is "A simple ring with a few shiny keys."

Understand "key" and "keyring" and "ring" as keys.

SECTION -- Going Nowhere

Instead of going nowhere:

say "You don't see anything of interest and decide to go back."

SECTION -- Dictionary

Defining is an action applying to one topic.

Understand "define [text]" or "look up [text]" or "what does [text] mean" or "meaning of [text]" or "[text] means" or "[text] meaning" or "what is [text]" as Defining.

Carry out Defining:

if the topic understood is a topic listed in the Table of Movie Words:

say "You read: '[definition entry]';"

else:

say "The [the topic understood] page isn't available right now."

Table of Movie Words

topic definition

"movie" "[italic type]See MOTION PICTURE[roman type]"

"screen" "a : a flat surface on which a picture or series of pictures is projected or reflected [paragraph break]

b : the surface on which the image appears in an electronic display (as in a television set, radar receiver, or computer terminal); also : the information displayed on a computer screen at one time (Merriam-Webster, 2018)"

"motion picture" "1 : a series of pictures projected on a screen in rapid succession with objects shown in successive positions slightly changed so as to produce the optical effect of a continuous picture in which the objects move [paragraph break]2 : a representation (as of a story) by means of motion pictures : movie (Merriam-Webster, 2018)"

"multiplex" "A movie theater with multiple screens."

"marquee" "a : a permanent canopy often of metal and glass projecting over an entrance (as of a hotel or theater). 'The hotel doorman was stationed under the marquee.' [paragraph break]b : a sign usually over the entrance of a theater or arena that displays the names of featured attractions and principal performers. 'The brightly lighted marquee displayed the title of the movie currently featured. (Merriam-Webster, 2018)'"

"ticket counter" "[italic type]See COUNTER[roman type]"

"counter" "a level surface (such as a table, shelf or display case) over which transactions are conducted or food is served or on which goods are displayed or work is conducted."

"arcade" "an amusement center having coin-operated games. (Merriam-Webster, 2018)"

"film cans" "a container, often metal or plastic, used to contain rolls of film."

"film reel" "a flanged spool for photographic film; especially : one for motion pictures. (Merriam-Webster, 2018)"

"projector" "one that projects: such as [paragraph break]a : a device for projecting a beam of light [paragraph break]b : an optical instrument for projecting an image upon a surface [paragraph break]c : a machine for projecting motion pictures on a screen (Merriam-Webster, 2018)"

"posters" "a large printed picture or notice put up for advertising or decoration (Cambridge Dictionary, 2018)"

"promo" "a promotional announcement, blurb, or appearance (Merriam-Webster, 2018)"

"flick" "informal: movie (Merriam-Webster, 2018)"

"series" "a succession of volumes or issues published with related subjects or authors, similar format and price, or continuous numbering (Merriam-Webster, 2018)"

"installment" "a : one of several parts (as of a publication) presented at intervals [paragraph break]b : one part of a serial story (Merriam-Webster, 2018)"

"mystery/crime thriller" "[italic type]See MYSTERY or THRILLER[roman type]"

"mystery" "a piece of fiction dealing usually with the solution of a mysterious crime (Merriam-Webster, 2018)"

"crime thriller" "[italic type]See THRILLER[roman type]"

"thriller" "one that thrills; especially : a work of fiction or drama designed to hold the interest by the use of a high degree of intrigue, adventure, or suspense (Merriam-Webster, 2018)"

"trailer" "a : a selected group of scenes that are shown to advertise a movie : preview [paragraph break]3 a theatrical trailer (Merriam-Webster, 2018)"

"stoner comedy" "a comedy movie based around the use of recreational drugs, often marijuana"

"rom-com" "Romantic Comedy: a light, comic movie or other work whose plot focuses on the development of a romantic relationship. (Merriam-Webster, 2018)"

"romantic comedy" "a light, comic movie or other work whose plot focuses on the development of a romantic relationship. See also ROM-COM (Merriam-Webster, 2018)"

"comedy" "a drama of light and amusing character and typically with a happy ending (Merriam-Webster, 2018)"

"musical" "def (Merriam-Webster, 2018)"

"slice-of-life" "of, relating to, or marked by the accurate transcription (as into drama) of a segment of actual life experience (Merriam-Webster, 2018)"

"slice of life" "of, relating to, or marked by the accurate transcription (as into drama) of a segment of actual life experience (Merriam-Webster, 2018)"

"horror" "calculated to inspire feelings of dread or horror; a horror movie(Merriam-Webster, 2018)"

"B-horror" "[italic type]See B Movie[roman type]"

"B horror" "[italic type]See B Movie[roman type]"

"B movie" "a cheaply produced motion picture (Merriam-Webster, 2018)"

"action" "an event or series of events forming a literary composition [line break]Most of the play's action takes place in a courtroom. [paragraph break](2) : the unfolding of the events of a drama or work of fiction (Merriam-Webster, 2018)"

"western" "often capitalized : a novel, story, motion picture, or broadcast dealing with life in the western U.S. especially during the latter half of the 19th century (Merriam-Webster, 2018)"

"genre" "1 : a category of artistic, musical, or literary composition characterized by a particular style, form, or content a classic of the gothic novel genre [paragraph break]2 : kind, sort (Merriam-Webster, 2018)"

"prop" "stage PROPERTIES: an article or object used in a play or motion picture except painted scenery and costumes (Merriam-Webster, 2018)"

SECTION -- Extensions/Actions

Include Basic Screen Effects by Emily Short.

Understand "credits" as asking for credits.

Asking for credits is an action out of world.

Carry out asking for credits:

say "Cinema Adventure is a a work of Interactive Fiction by Alexis Kim © 2017. Definitions from Merriam-Webster 2018 (<https://www.merriam-webster.com/>) and the Cambridge Online Dictionary (<https://dictionary.cambridge.org/us/dictionary/english/poster>) [line break] thanks to all who supported the making of this game."

After reading a command:

let T be "[the player's command]" in lower case;
replace the regular expression "\\p" in T with "";
replace the regular expression "^ " in T with "";
change the text of the player's command to T.

Understand "see [something]" or "view [something]" as examining.

Instead of opening door:

say "Doesn't seem you can open this door. You probably shouldn't be here anyway."

Instead of switching on phone:

say "The time is [time of day]. It doesn't seem like you have service here.";
now phone is switched on.

Instead of switching off phone:

say "You think about turning your phone off and decide you might need it. Your battery is fine anyway.";
stop the action.

Instead of attacking:

say "Now what do you think they're doing? This isn't that type of game!";
stop the action.

Querying about is an action applying to one topic.

Understand "ask about [text]" and "ask for [text]" and "talk about [text]" as querying about.

Instead of querying about a topic listed in the Table of TAResponses:

If TicketAgent is in the location:

say "[line break][TA entry][paragraph break]";

stop the action;

else:

say "Who are you asking?"

Talking to is an action applying to one visible thing.

Understand "talk to [someone]" and "talk to [something]" as talking to.

Check talking to [something]:

if noun is not a person:

say "You talk to [noun], but don't receive a response (probably because it can't talk back!);

stop the action.

Carry out talking to:

say "You try talking to [noun], but they don't seem to want to chat."

Pooping is an action applying to one visible thing.

Understand "poop in [something]" as pooping.

a thing can be poopable or unpoopable. A thing is usually unpoopable.

The LadiesToilet1 is poopable.

Check Pooping:

if noun is not poopable:

say "If you need to go to the bathroom, you should find a toilet.";

stop the action.

Carry out pooping:

say "Ahhh~ You feel much better now."

Peeing is an action applying to one visible thing.

Understand "pee in [something]" as peeing.

a thing can be peeable or unpeeable. A thing is usually unpeeable.

The LadiesToilet1 and MensToilet1 and MensUrinal1 is peeable.

Check Peeing:

if noun is not peeable:

say "If you need to go to the bathroom, you should find a toilet.";

stop the action.

Carry out peeing:

say "Ahhh~ You feel much better now."

Handwashing is an action applying to one visible thing.

Understand "Wash hands in [something]" as Handwashing.

a thing can be handwashable or unhandwashable. A thing is usually unhandwashable.

The LadiesSink1 and MensSink1 are handwashable.

Check Handwashing:

if noun is not handwashable:

say "You should wash your hands in a sink.";

stop the action.

Carry out Handwashing:

say "Fresh and clean!"

SECTION -- Status Line

Rule for constructing the status line:

center "[location]" at row 1;

rule succeeds.

SECTION -- Final End Actions/Conditions

GoingHome is an action applying to nothing. Understand "go home" and "get a ride home" and "get a ride" and "get a taxi" and "call a taxi" and "walk home" and "leave theater" and "leave the theater" and "leave multiplex" and "leave the multiplex" and "leave Phoenix" and "leave Phoenix 6" and "end game" as GoingHome.

Check GoingHome:

if the player is not in NormalTheater, say "You can't seem to leave here." instead.

Carry out GoingHome:

say "Are you sure you're done here? (yes / no)";

if the player consents:

clear the screen;

say "Tired of hanging out, you decide you're ready to go home. You begin to walk away, but feel there is something you missed. [paragraph break] Maybe next time.";

end the story saying "You received the 'Homeward Bound' ending."

Use undo prevention.

[Rule for printing the player's obituary:

say "You feel something on your shoulder...[paragraph break] You jerk awake and open your eyes wide. An usher with a broom and dustpan is standing over you looking disinterested. 'We're closing now,' he says. You nod and use the armrest next to your seat to prop yourself up, wiping your eyes a bit and stretching as you reach your full, upright posture. You walk out of the lobby, and begin to check for your things. Phone...keys...wallet...it's all there. [paragraph break] As you exit the theater and walk into the night, you hear someone. 'Excuse me!' You turn around and see a short, older man, 'I think you dropped

this.' You, still somewhat groggy, reach out and take a small piece of paper from him and mumble thanks as you begin to walk off. Then you look down at the paper, 'WAIT!' you shout as your turn around. But you only see the building as the last of the lights are shut off." ;

center "[bold type]The End.[roman type]";

say paragraph break;

wait for any key;

stop game abruptly;

rule succeeds.]

SECTION -- Regions

The NormalTheater is a region. The SidewalkNormal, OuterBuildingWestNormal, OuterBuildingEastNormal, TicketCounterNormal, LobbySouthNormal, ArcadeNormal, ConcessionStandNormal, LobbyNorthNormal, HallwayEntranceNormal, HallwayWest1Normal, HallwayWest2Normal, HallwayWest3Normal, MensRestroomNormal, HallwayEast1Normal, HallwayEast2Normal, HallwayEast3Normal, LadiesRestroomNormal, HallwayEast1Normal, StairwellNormal, StorageRoomNormal, Screen1Normal, Screen2Normal, Screen3Normal, Screen4Normal, Screen5Normal, Screen6Normal, UpperLobbyNormal, ManagersOfficeNormal, Screen5BalconyNormal, BreakRoomNormal, Screen6BalconyNormal, BasementNormal are in the NormalTheater.

The BizarreTheater is a region. The SidewalkBizarre, OuterBuildingWestBizarre, OuterBuildingEastBizarre, TicketCounterBizarre, LobbySouthBizarre, ArcadeBizarre, ConcessionStandBizarre, LobbyNorthBizarre, HallwayEntranceBizarre, HallwayWest1Bizarre, HallwayWest2Bizarre, HallwayWest3Bizarre, MensRestroomBizarre, HallwayEast1Bizarre,

HallwayEast2Bizarre, HallwayEast3Bizarre, LadiesRestroomBizarre, HallwayEast1Bizarre, StairwellBizarre, StorageRoomBizarre, Screen1Bizarre, Screen2Bizarre, Screen3Bizarre, Screen4Bizarre, Screen5Bizarre, Screen6Bizarre, UpperLobbyBizarre, ManagersOfficeBizarre, Screen5BalconyBizarre, BreakRoomBizarre, Screen6BalconyBizarre, BasementBizarre are in the BizarreTheater.

SECTION -- MAP NORMAL-----

SECTION -- Outside

SidewalkNormal is a room. The printed name of SidewalkNormal is "Sidewalk". "[if unvisited]You step up to the entrance and can't help but feel awe. The Phoenix 6 is a six screen [italic type]multiplex[roman type] that has a sort of dignity that only the passing of time can give. Much of the original art deco facade was preserved through the years and even matched to the expansion that came along several decades later. [end if] To the [bold type]west[roman type] and [bold type]east[roman type] you can see the outer building. Go [bold type]north[roman type] for the ticket counter."

OuterBuildingWestNormal is west of SidewalkNormal. The printed name of OuterBuildingWestNormal is "Outer Building - West". "To the west side of the theater you see rows of shrubbery and some weather resistant frames housing the latest movie posters. The perfect place for teens to loiter while they wait on their ride. To the [bold type]east[roman type] is the sidewalk."

OuterBuildingEastNormal is east of SidewalkNormal. The printed name of OuterBuildingEastNormal is "Outer Building - East". "To the east side of the theater you see rows of shrubbery and some weather resistant frames housing the latest movie posters. The perfect place for teens to be dropped off by their parents. To the [bold type]west[roman type] is the sidewalk."

TicketCounterNormal is north of SidewalkNormal. The printed name of TicketCounterNormal is "Ticket Counter". "Situated under the *marquee* is the *ticket counter*. To the **south** is the sidewalk and around the side and to the **north** is the lobby. [line break]As you approach the area, a screen in the window lights up."

SECTION -- Inside 1

LobbySouthNormal is north of TicketCounterNormal. The printed name of LobbySouthNormal is "Lobby - South". "A bustling lobby filled with similarly enthusiastic movie goers. The arcade is **west**. You can go further down the lobby to the **north**. The aroma from the concession stand wafts to you from the **east**."

ArcadeNormal is west of LobbySouthNormal. The printed name of ArcadeNormal is "Arcade". "[if unvisited]You step into a nook adjacent to the lobby and enter the *arcade*. There are some kids playing at an air hockey table, volleying the puck back and forth. [end if]A few cabinets against the wall flash their lights and noisily play chiptunes, attempting to seduce you or any passerby of your spare change. The Lobby is back to your **east**."

ConcessionStandNormal is east of LobbySouthNormal. The printed name of ConcessionStandNormal is "Concession Stand". "[if unvisited] You step into a wide alcove on the east side of the lobby and your senses are overwhelmed with the sights, sounds, and smells of the concessions stand. The employees behind the counter are managing the popcorn machines, tending to customers at the counter and pouring sodas. [end if] You see groups of customers and a menu above the counter. The Lobby is back to the **west**."

LobbyNorthNormal is north of LobbySouthNormal. The printed name of LobbyNorthNormal is "Lobby - North". "The red carpet continues to guide you through the lobby. The screens are to the **west**

type]north[roman type]. You can go toward the ticket counter, arcade and concession stand back [bold type]south[roman type]. "

HallwayEntranceNormal is north of LobbyNorthNormal. The printed name of HallwayEntranceNormal is "Hallway - Entrance". "The entrance of the hallway, you see disinterested staff waiting to help wayward customers. Screens 1, 4, and 5 are to the [bold type]west[roman type] and 2, 3, and 6 are to the [bold type]east[roman type]. There's an elevator here, but it appears to be under repair for the moment. The lobby is back [bold type]south[roman type]."

HallwayWest1Normal is west of HallwayEntranceNormal. The printed name of HallwayWest1Normal is "Hallway - West". "A hallway on the west wing. You can go further [bold type]west[roman type] down the hall or back [bold type]east[roman type] toward the lobby. The men's room is to the [bold type]south[roman type] and a door marked 'storage closet' is to your [bold type]north[roman type]."

HallwayWest2Normal is west of HallwayWest1Normal. The printed name of HallwayWest2Normal is "Hallway - West". "A hallway on the west wing. You can go further [bold type]west[roman type] down the hall or back [bold type]east[roman type] toward the lobby. Screen 5 is to the [bold type]south[roman type] and Screen 1 [bold type]north[roman type]."

HallwayWest3Normal is west of HallwayWest2Normal. The printed name of HallwayWest3Normal is "Hallway - West". "A hallway on the west wing. You can go back [bold type]east[roman type] toward the lobby. The only door here is to Screen 4 to the [bold type]north[roman type]."

MensRestroomNormal is south of HallwayWest1Normal. The printed name of MensRestroomNormal is "Men[']s Restroom". "An empty men's washroom with a few urinals and stalls. Though not particularly big, it seems to be well kept. You can go [bold type]north[roman type] to get back out to the hallway."

HallwayEast1Normal is east of HallwayEntranceNormal. The printed name of HallwayEast1Normal is "Hallway - East". "A hallway on the east wing. You can go further [bold type]east[roman type] down the hall or back [bold type]west[roman type] toward the lobby. The ladies['] room is to the [bold type]south[roman type] and there's a stairwell [bold type]north[roman type]."

HallwayEast2Normal is east of HallwayEast1Normal. The printed name of HallwayEast2Normal is "Hallway - East". "A hallway on the east wing. You can go further [bold type]east[roman type] down the hall or back [bold type]west[roman type] toward the lobby. Screen 6 is to the [bold type]south[roman type] and Screen 2 [bold type]north[roman type]."

HallwayEast3Normal is east of HallwayEast2Normal. The printed name of HallwayEast3Normal is "Hallway - East". "A hallway on the east wing. You can go back [bold type]west[roman type] toward the lobby. The only door here is to Screen 3 to the north [bold type]north[roman type]."

LadiesRestroomNormal is south of HallwayEast1Normal. The printed name of LadiesRestroomNormal is "Ladies['] Restroom". "A quaint Ladies['] washroom with a few stalls. You look down at the black quartz counter top and see your reflection clearly. You can go [bold type]north[roman type] to get back out to the hallway."

StairwellNormal is north of HallwayEast1Normal. The printed name of StairwellNormal is "Stairwell".

"A plain, narrow stairwell leading [bold type]up[roman type] to the second level."

StorageRoomNormal is north of StorageDoorNormal. The printed name of StorageRoomNormal is

"Storage Room". "Dark and dank, there's nothing here but some cleaning supplies."

The StorageDoorNormal is an closed unopenable door. The StorageDoorNormal is north of

HallwayWest1Normal and south of StorageRoomNormal. The StorageDoorNormal is scenery. The

printed name of StorageDoorNormal is "Storage Door". Understand "storage door" as

StorageDoorNormal.

Screen1Normal is north of HallwayWest2Normal. The printed name of Screen1Normal is "Screen 1". "A dark room with rows of seating and a giant screen; [one of]it appears to be quite full.[or]there are groups of people here and there.[or]not many people are here.[or]it's too dark to see how many people are here.[or]looks like all the good spots are taken.[or]you see some good seats as you walk in.[or]you are ready to sit down and watch your movie.[or]the audience seems to be settled in with their treats.[or]it's more crowded than you expected.[or]it's less crowded than you expected.[sticky random] The hall is to the [bold type]south[roman type]."

Screen2Normal is north of HallwayEast2Normal. The printed name of Screen2Normal is "Screen 2". "A dark room with rows of seating and a giant screen; [one of]it appears to be quite full.[or]there are groups of people here and there.[or]not many people are here.[or]it's too dark to see how many people are here.[or]looks like all the good spots are taken.[or]you see some good seats as you walk in.[or]you are ready to sit down and watch your movie.[or]the audience seems to be settled in with their treats.[or]it's more crowded than you expected.[or]it's less crowded than you expected.[sticky random] The hall is to the [bold type]south[roman type]."

Screen3Normal is north of HallwayEast3Normal. The printed name of Screen3Normal is "Screen 3". "A dark room with rows of seating and a giant screen; [one of]it appears to be quite full.[or]there are groups of people here and there.[or]not many people are here.[or]it's too dark to see how many people are here.[or]looks like all the good spots are taken.[or]you see some good seats as you walk in.[or]you are ready to sit down and watch your movie.[or]the audience seems to be settled in with their treats.[or]it's more crowded than you expected.[or]it's less crowded than you expected.[sticky random] The hall is to the [bold type]south[roman type]."

Screen4Normal is north of HallwayWest3Normal. The printed name of Screen4Normal is "Screen 4". "A dark room with rows of seating and a giant screen; [one of]it appears to be quite full.[or]there are groups of people here and there.[or]not many people are here.[or]it's too dark to see how many people are here.[or]looks like all the good spots are taken.[or]you see some good seats as you walk in.[or]you are ready to sit down and watch your movie.[or]the audience seems to be settled in with their treats.[or]it's more crowded than you expected.[or]it's less crowded than you expected.[sticky random] The hall is to the [bold type]south[roman type]."

Screen5Normal is south of HallwayWest2Normal. The printed name of Screen5Normal is "Screen 5". "A dark room with rows of seating and a giant screen; [one of]it appears to be quite full.[or]there are groups of people here and there.[or]not many people are here.[or]it's too dark to see how many people are here.[or]looks like all the good spots are taken.[or]you see some good seats as you walk in.[or]you are ready to sit down and watch your movie.[or]the audience seems to be settled in with their treats.[or]it's more crowded than you expected.[or]it's less crowded than you expected.[sticky random] The hall is to the [bold type]north[roman type]."

Screen6Normal is south of HallwayEast2Normal. The printed name of Screen6Normal is "Screen 6". "A dark room with rows of seating and a giant screen; [one of]it appears to be quite full.[or]there are groups of people here and there.[or]not many people are here.[or]it's too dark to see how many people are here.[or]looks like all the good spots are taken.[or]you see some good seats as you walk in.[or]you are ready to sit down and watch your movie.[or]the audience seems to be settled in with their treats.[or]it's more crowded than you expected.[or]it's less crowded than you expected.[sticky random] The hall is to the [bold type]north[roman type]."

SECTION -- Inside 2

UpperLobbyNormal is up from StairwellNormal. The printed name of UpperLobbyNormal is "Upstairs Lobby". "[if unvisited]Arriving in the upper lobby, you look over the ornate gold railing to see the lower level. [end if]It's not busy up here, probably because the balcony tickets are so limited. The Manager's Office is to the [bold type]west[roman type] the balcony to screen 5 is to the [bold type]southwest[roman type] screen 6 to the [bold type]southeast[roman type] and a door with a 'break room' sign to the [bold type]east[roman type]. The stairwell will take you back [bold type]down[roman type]."

ManagersOfficeNormal is west of OfficeDoorNormal. The printed name of ManagersOfficeNormal is "Manager's Office". "A basic beige office. You can practically smell the spreadsheets."

The OfficeDoorNormal is an closed unopenable door. The OfficeDoorNormal is west of the UpperLobbyNormal and east of ManagersOfficeNormal. The OfficeDoorNormal is scenery.

Screen5BalconyNormal is southwest of UpperLobbyNormal. The printed name of Screen5BalconyNormal is "Screen 5 - Balcony". "The upper levels contain a few rows of premium seats. In the evenings, this area is restricted to adults over 21 years or older, where they can enjoy alcohol delivered to their seats, via pager buttons. For a small theater, the Phoenix sure is a swanky joint. You can exit to the [bold type] northeast [roman type]."

BreakRoomNormal is east of BreakRoomDoorNormal. The printed name of BreakRoomNormal is "Breakroom". "A plain room with a table and chairs. Some lockers line a section of the wall, presumably containing the personal items of the employees. You suddenly remember you don't work here."

The BreakRoomDoorNormal is an closed unopenable door. The BreakRoomDoorNormal is east of the UpperLobbyNormal and west of the BreakRoomNormal. The BreakRoomDoorNormal is scenery.

Screen6BalconyNormal is southeast of UpperLobbyNormal. The printed name of Screen6BalconyNormal is "Screen 6 - Balcony". "The upper levels contains a few rows of premium seats. In the evenings, this area is restricted to adults over 21 years or older, where they can enjoy alcohol delivered to their seats, via pager buttons. For a small theater, the Phoenix sure is a swanky joint. You can exit to the [bold type] northwest [roman type]."

SECTION -- Inside 0

BasementNormal is down from StairwellNormal. The printed name of BasementNormal is "Basement". "Small and crowded, this room seems stuffed to the gills with various film paraphernalia. You see old [italic type]film cans[roman type] filled with [italic type]film reel[roman type] and the [italic type]projector[roman type] they would run on. There are also some cardboard cutouts and [italic type]posters[roman type]. You can leave the room by going [bold type]up[roman type]."

SECTION -- MAP BIZARRE-----

SECTION -- Outside

SidewalkBizarre is a room. The printed name of SidewalkBizarre is "Sidewalk". ""

OuterBuildingWestBizarre is west of SidewalkBizarre. The printed name of OuterBuildingWestBizarre is ""

OuterBuildingEastBizarre is east of SidewalkBizarre. The printed name of OuterBuildingEastBizarre is "Outer Building - East". ""

TicketCounterBizarre is north of SidewalkBizarre. The printed name of TicketCounterBizarre is "Ticket Counter". ""

SECTION -- Inside 1

LobbySouthBizarre is north of TicketCounterBizarre. The printed name of LobbySouthBizarre is "Lobby - South". ""

ArcadeBizarre is west of LobbySouthBizarre. The printed name of ArcadeBizarre is "Arcade". ""

ConcessionStandBizarre is east of LobbySouthBizarre. The printed name of ConcessionStandBizarre is "Concession Stand". ""

LobbyNorthBizarre is north of LobbySouthBizarre. The printed name of LobbyNorthBizarre is "Lobby - North". ""

HallwayEntranceBizarre is north of LobbyNorthBizarre. The printed name of HallwayEntranceBizarre is "Hallway - Entrance". ""

HallwayWest1Bizarre is west of HallwayEntranceBizarre. The printed name of HallwayWest1Bizarre is "Hallway - West". ""

HallwayWest2Bizarre is west of HallwayWest1Bizarre. The printed name of HallwayWest2Bizarre is "Hallway - West". ""

HallwayWest3Bizarre is west of HallwayWest2Bizarre. The printed name of HallwayWest3Bizarre is "Hallway - West". ""

MensRestroomBizarre is south of HallwayWest1Bizarre. The printed name of MensRestroomBizarre is "Men's Restroom". ""

HallwayEast1Bizarre is east of HallwayEntranceBizarre. The printed name of HallwayEast1Bizarre is "Hallway - East". ""

HallwayEast2Bizarre is east of HallwayEast1Bizarre. The printed name of HallwayEast2Bizarre is "Hallway - East". ""

HallwayEast3Bizarre is east of HallwayEast2Bizarre. The printed name of HallwayEast3Bizarre is "Hallway - East". ""

LadiesRestroomBizarre is south of HallwayEast1Bizarre. The printed name of LadiesRestroomBizarre is ""

StairwellBizarre is north of HallwayEast1Bizarre. The printed name of StairwellBizarre is "Stairwell". "."

StorageRoomBizarre is north of StorageDoorBizarre. The printed name of StorageRoomBizarre is "Storage Room". "."

The StorageDoorBizarre is an closed unopenable door. The StorageDoorBizarre is north of HallwayWest1Bizarre and south of StorageRoomBizarre. The StorageDoorBizarre is scenery.

Screen1Bizarre is north of HallwayWest2Bizarre. The printed name of Screen1Bizarre is "Screen 1". "."

Screen2Bizarre is north of HallwayEast2Bizarre. The printed name of Screen2Bizarre is "Screen 2". "."

Screen3Bizarre is north of HallwayEast3Bizarre. The printed name of Screen3Bizarre is "Screen 3". "."

Screen4Bizarre is north of HallwayWest3Bizarre. The printed name of Screen4Bizarre is "Screen 4". "."

Screen5Bizarre is south of HallwayWest2Bizarre. The printed name of Screen5Bizarre is "Screen 5". "."

Screen6Bizarre is south of HallwayEast2Bizarre. The printed name of Screen6Bizarre is "Screen 6". "."

SECTION -- Inside 2

UpperLobbyBizarre is up from StairwellBizarre. The printed name of UpperLobbyBizarre is "Upstairs Lobby". ""

ManagersOfficeBizarre is west of OfficeDoorBizarre. The printed name of ManagersOfficeBizarre is "Manager's Office". "PLACEHOLDER."

The OfficeDoorBizarre is an closed unopenable door. The OfficeDoorBizarre is west of the UpperLobbyBizarre and east of ManagersOfficeBizarre. The OfficeDoorBizarre is scenery.

Screen5BalconyBizarre is southwest of UpperLobbyBizarre. The printed name of Screen5BalconyBizarre is "Screen 5 - Balcony". ""

BreakRoomBizarre is east of BreakRoomDoorBizarre. The printed name of BreakRoomBizarre is "Breakroom". "PLACEHOLDER."

The BreakRoomDoorBizarre is an closed unopenable door. The BreakRoomDoorBizarre is east of the UpperLobbyBizarre and west of the BreakRoomBizarre. The BreakRoomDoorBizarre is scenery.

Screen6BalconyBizarre is southeast of UpperLobbyBizarre. The printed name of Screen6BalconyBizarre is "Screen 6 - Balcony". ""

SECTION -- Inside 0

BasementBizarre is down from StairwellBizarre. The printed name of BasementBizarre is "Basement". ""

SECTION -- END MAPS-----

SECTION -- Scenery

The Theater is a backdrop. The description is "A small six-screen theater."

The Screen1 is a backdrop. It is in the Screen1Normal. The description is "A large screen. Two Gents and a Showgirl appears to be playing." Understand "screen" as Screen1.

The Screen2 is a backdrop. It is in the Screen2Normal. The description is "A large screen. The Big MacGuffin is playing." Understand "screen" as Screen2.

The Screen3 is a backdrop. It is in the Screen3Normal. The description is "A large screen. An Honest Thief is showing." Understand "screen" as Screen3.

The Screen4 is a backdrop. It is in the Screen4Normal. The description is "A large screen. Goodbye, Manhattan is showing." Understand "screen" as Screen4.

The Screen5 is a backdrop. It is in the Screen5Normal. The description is "A large screen. Hotel Dracula is playing." Understand "screen" as Screen5.

The Screen6 is a backdrop. It is in the Screen6Normal. The description is "A large screen. Looks like Road to Quay County is playing." Understand "screen" as Screen6.

The stairs is a backdrop. It is in the StairwellNormal. The description is "A rather plain set of tiled stairs with a strip of carpet down the center". Understand "stairs" and "stair" as stairs.

The marquee is a backdrop. It is in the SidewalkNormal and TicketCounterNormal. The description is "A large outdoor sign for advertising what's showing or premiere information." Understand "marquee" and "outdoor sign" as marquee.

The TicketCounter is a backdrop. It is in the SidewalkNormal and TicketCounterNormal. The description is "A small booth area facing the sidewalk. The two windows rimmed in gold metal trim and green quartz panel below the counter vaguely remind you of some older banks you've seen around town." Understand "ticket counter" and "counter" and "booth" and "windows" and "window" and "quartz" and "green quartz" and "green quartz panel" and "quartz panel" as TicketCounter. The printed name of TicketCounter is "Ticket Counter".

The multiplex is a backdrop. It is in the NormalTheater. The description is "The theater is a large taupe building with brightly colored red and gold signs that are lit at night." Understand "multiplex" and "Phoenix 6" and "outer building" and "facade" and "art deco facade" as multiplex.

The signs are a backdrop. It is in the SidewalkNormal. The description is "Large outdoor signs lit with extravagant lights.". Understand "signs" and "sign" and "red and gold signs" and "gold signs" and "red signs" and "red gold signs" and "neon" and "outdoor signs" as signs.

The carpet is a backdrop. It is in the NormalTheater. The description is "Plush red carpet makes all the guests feel like celebrities." Understand "red carpet" and "carpet" as carpet.

The tiles is a backdrop. It is in the NormalTheater. The description is "Some of the areas have polished gray tiles." Understand "tiles" and "gray tiles" and "polished tiles" and "gray polished tiles" as tiles.

The wallpaper is a backdrop. It is in the NormalTheater. The description is "A cream colored wallpaper with a faint shell pattern."

The walls are a backdrop. It is in the NormalTheater. The description is "They keep the ceiling up. Most of the walls inside are covered in a beautiful wallpaper too."

The ceiling is a backdrop. It is in the NormalTheater. The description is "A dark brown ceiling."

The sky is a backdrop. It is in the The SidewalkNormal and OuterBuildingWestNormal and OuterBuildingEastNormal and TicketCounterNormal. The description is "A blue sky with a few light clouds."

The clouds is a backdrop. It is in the The SidewalkNormal and OuterBuildingWestNormal and OuterBuildingEastNormal and TicketCounterNormal. The description is "Some cumulus clouds."

The sun is a backdrop. It is in the The SidewalkNormal and OuterBuildingWestNormal and OuterBuildingEastNormal and TicketCounterNormal. The description is "Hey, don't stare at the sun!"

SECTION -- Items

FrameWest is a fixed in place object in OuterBuildingWestNormal. The FrameWest is scenery. The description is "[one of]It seems to be a [italic type]promo[roman type] of the latest car action [italic type]flick[roman type] 'Pedal to the Metal: Osaka Drivers.' This [italic type]series[roman type] seems to get a new [italic type]installment[roman type] every year! [or] A poster for the movie 'Rough Sketch'. Looks like a [italic type]mystery/crime thriller [roman type]. Wasn't the [italic type]trailer[roman type] on TV? It is supposed to be about a psychic artist that joins the police to search for a dangerous killer. [or] Old Dog, New Tricks: Looks like a family drama starring Jennifer Soandso and Hank Whatsisface. The shaggy dog on the cover sure is cute! [cycling]". The printed name of FrameWest is "Framed Poster". Understand "frame" and "frames" and "framed poster" and "framed posters" and "poster" and "posters" as FrameWest.

ShrubberyWest is a fixed in place object in OuterBuildingWestNormal. The ShrubberyWest is scenery. The description is "It is a good shrubbery. I like the laurels particularly.". The printed name of ShrubberyWest is "shrubbery".

Understand "shrubs" and "bushes" and "shrub" as ShrubberyWest.

FrameEast is a fixed in place object in OuterBuildingEastNormal. The FrameEast is scenery. The description is "[one of]This [italic type]poster[roman type] has a giant skull and says 'Golgotha'. You've never heard of this movie before. [or] Rocky Mountain High: A [italic type]stoner comedy[roman type]

musical with music by the late John Denver. Two best friends get lost during a road trip in Colorado on their way to a food truck contest. Will they make it in time to win the prize money and save their struggling start-up? [or] This poster says 'Continental Divide' a [italic type]rom-com[roman type] about a young man from Argentina and his girlfriend from Kansas and the hijinks that happen when their families meet. [cycling]". The printed name of FrameEast is "Framed Poster".

Understand "frame" and "frames" and "framed poster" and "framed posters" and "poster" and "posters" as FrameEast.

ShrubberyEast is a fixed in place object in OuterBuildingEastNormal. The ShrubberyEast is scenery. The description is "You hear a noise. Leaning in to the shrub you hear a gentle 'ni, ni, ni' as the wind rustles the leaves.". The printed name of ShrubberyEast is "shrubbery".

Understand "shrubs" and "bushes" and "shrub" as ShrubberyEast.

PopcornMachine is a fixed in place object in ConcessionStandNormal. PopcornMachine is scenery. The printed name of PopcornMachine is "popcorn machine". The description is "A large glass container with a mountain of buttered popcorn in it." Understand "popcorn machine" as PopcornMachine.

SodaFountain is a fixed in place object in ConcessionStandNormal. SodaFountain is scenery. The printed name of SodaFountain is "soda fountain". The description is "The employees are filling up drinks using this machine. This one seems to be a BestSoda brand machine." Understand "soda machine" and "soda fountain" as SodaFountain.

Elevator1 is a fixed in place object in HallwayEntranceNormal. Elevator1 is scenery. The description is "An elevator to the upper balcony. It seems to be under repair at this time. Better take the stairs." The elevatordoor1 is part of Elevator1. The description of the elevatordoor1 is "What a shiny door!." The

printed name of elevatordoor1 is "elevator door". Understand "elevator door" and "door" as elevatordoor1.

Elevator2 is a fixed in place object in HallwayEntranceNormal. Elevator2 is scenery. The description is "It's under construction, so you can only use the reflective doors as a mirror." The elevatordoor2 is part of Elevator2. The description of the elevatordoor2 is "A reflective gold door." The printed name of elevatordoor2 is "elevator door". Understand "elevator door" and "door" as elevatordoor2.

MensMirror1 is an object in MensRestroomNormal. MensMirror1 is scenery. The printed name of MensMirror1 is "mirror". The description is "You see yourself in the mirror." Understand "mirror" as MensMirror1.

MensToilet1 is an enterable supporter in MensRestroomNormal. MensToilet1 is scenery. The printed name of MensToilet1 is "toilet". The description is "Just a regular toilet." Understand "toilet" as MensToilet1.

MensStall1 is an object in MensRestroomNormal. MensStall1 is scenery. The printed name of MensStall1 is "stall". The description is "Black quartz walls and shiny metal doors create a stylish partitions." Understand "stall" and "divider" and "shiny metal door" and "shiny metal doors" and "metal doors" and "metal door" as MensStall1.

MensUrinal1 is an enterable supporter in MensRestroomNormal. MensUrinal1 is scenery. The printed name of MensUrinal1 is "urinal". The description is "A urinal." Understand "urinal" as MensUrinal1.

MensSink1 is an device in MensRestroomNormal. MensSink1 is scenery. The description is "A pristine sink." The printed name of MensSink1 is "sink". Understand "sink" as MensSink1.

MensCounter1 is an object in MensRestroomNormal . MensCounter1 is scenery. The printed name of MensCounter1 is "counter". The description is "A sturdy black quartz counter top that's been polished to a shine." Understand "counter" and "counter top" and "countertop" as MensCounter1.

LadiesMirror1 is an object in LadiesRestroomNormal . LadiesMirror1 is scenery. The printed name of LadiesMirror1 is "mirror". The description is "Who is that handsome person in the mirror? Oh, it's just you ♥ ." Understand "mirror" as LadiesMirror1.

LadiesCounter1 is an object in LadiesRestroomNormal . LadiesCounter1 is scenery. The printed name of LadiesCounter1 is "counter". The description is "A sturdy black quartz countertop that's been polished to a shine." Understand "counter" and "countertop" and "counter top" as LadiesCounter1.

LadiesToilet1 is an enterable supporter in LadiesRestroomNormal . LadiesToilet1 is scenery. The printed name of LadiesToilet1 is "toilet". The description is "A porcelain throne." Understand "toilet" as LadiesToilet1.

LadiesSink1 is an device in LadiesRestroomNormal . LadiesSink1 is scenery. The description is "A standard sink. Nothing too special." The printed name of LadiesSink1 is "sink". Understand "sink" as LadiesSink1.

LadiesStall1 is an object in LadiesRestroomNormal. LadiesStall1 is scenery. The printed name of LadiesStall1 is "stall". The description is "Black quartz walls and shiny metal doors create a stylish

partitions." Understand "stall" and "divider" and "shiny metal door" and "shiny metal doors" and "metal doors" and "metal door" as LadiesStall1.

CleaningSupplies are fixed in place objects in the StorageRoomNormal. CleaningSupplies are scenery. The printed name of CleaningSupplies are "cleaning supplies". The description is "Some things the staff must use to clean up." Understand "cleaning supplies" and "supplies" as CleaningSupplies.

Railing is a fixed in place object in UpperLobbyNormal. Railing is scenery. The description is "An ornate gilded railing that provides practical decoration to the upper level." Understand "gold railing" and "railing" as Railing.

Pager5 is a fixed in place switched off device in Screen5BalconyNormal. Pager5 is scenery. The description is "A small translucent button that can be activated during certain times. On Sundays, the theater doesn't usually keep a bartender on staff." Understand "pager" and "button" and "pager button" as Pager5.

Instead of switching on Pager5:

say "You try to activate the pager, but it does nothing. The theater is not running their beverage service now.";

stop the action.

Pager6 is a fixed in place switched off device in Screen6BalconyNormal. Pager6 is scenery. The description is "A small translucent button that can be activated during certain times. On Sundays, the theater doesn't usually keep a bartender on staff." Understand "pager" and "button" and "pager button" as Pager6.

Instead of switching on Pager6:

say "You try to activate the pager, but it does nothing. The theater is not running their beverage service now.";

stop the action.

The Screen1Seating is an enterable supporter in Screen1Normal. The Screen1Seating is scenery. The description is "Red, theater style seats arranged in rows. They have cup holders too!". The printed name of Screen1Seating is "folding seat".

Understand "chair" and "seat" and "folding seat" as Screen1Seating.

The Screen2Seating is an enterable supporter in Screen2Normal. The Screen2Seating is scenery. The description is "Red, theater style seats arranged in rows. They have cup holders too!". The printed name of Screen2Seating is "folding seat".

Understand "chair" and "seat" and "folding seat" as Screen2Seating.

The Screen3Seating is an enterable supporter in Screen3Normal. The Screen3Seating is scenery. The description is "Red, theater style seats arranged in rows. They have cup holders too!". The printed name of Screen3Seating is "folding seat".

Understand "chair" and "seat" and "folding seat" as Screen3Seating.

The Screen4Seating is an enterable supporter in Screen4Normal. The Screen4Seating is scenery. The description is "Red, theater style seats arranged in rows. They have cup holders too!". The printed name of Screen4Seating is "folding seat".

Understand "chair" and "seat" and "folding seat" as Screen4Seating.

The Screen5Seating is an enterable supporter in Screen5Normal. The Screen5Seating is scenery. The description is "Red, theater style seats arranged in rows. They have cup holders too!". The printed name of Screen5Seating is "folding seat".

Understand "chair" and "seat" and "folding seat" as Screen5Seating.

The Screen6Seating is an enterable supporter in Screen6Normal. The Screen6Seating is scenery. The description is "Red, theater style seats arranged in rows. They have cup holders too!". The printed name of Screen6Seating is "folding seat".

Understand "chair" and "seat" and "folding seat" as Screen6Seating.

Projector1 is a fixed in place object in BasementNormal. The projector is scenery. The description is " A large metal beast of a machine! A dusty metal box with a hole in the front and two large circular features on the top and bottom." The printed name of Projector1 is "projector".

SECTION -- Concession Mechanics

AnnouncementCount is a number variable. AnnouncementCount is 0.

Every turn when player is in NormalTheater:

 increment AnnouncementCount.

Before examining something when player is in NormalTheater:

 increment AnnouncementCount.

AnnouncementTruth is a truth state variable.

AnnouncementTruth is false.

Every turn when AnnouncementCount is greater than 6 and AnnouncementTruth is false:

say "You hear a charismatic voice boom over the speaker system, 'Try our great deals on snacks and beverages at the concession stand before you settle in!'"

now AnnouncementTruth is true.

The Menu is a fixed in place object in ConcessionStandNormal. The description is "[if unvisited] you can [italic type]'look at' or 'examine' any of the items on the menu to get more information[roman type][line break][bold type]Menu[roman type][line break]Solo Combo - \$13.95[line break]Lovers Combo - \$19.95[line break]Family Combo - \$35.95[line break]Popcorn - \$9.95[line break]Pretzel - \$6.95[line break]Water - \$2.95[line break]Nachos - \$7.95[line break]Pizza Slice- \$6.95[line break]Soda - \$5.95[line break]Chocolate Raisins - \$3.95[line break]Candy - \$3.95."

Price is a kind of value. \$10.99 specifies a price. A thing has a price. The price of a thing is usually \$0.00.

After examining something for sale, say "It costs [the price of the noun]."

Definition: a thing is free if the price of it is \$0.00.

Definition: a thing is for sale if it is not free.

Instead of taking something for sale:

say "You need to pay for [noun] first."

Before buying something for sale when the money is not in the wallet:

say "You don't have any money." instead.

Before buying something for sale when the money is free:

say "You don't have money for that." instead.

Before buying something for sale when the price of the money is less than the price of the noun:

say "You can't afford [the noun]." instead.

Instead of buying something:

decrease the price of the money by the price of the noun;

say "You pay [the price of the noun] for [the noun], leaving yourself with [the price of the money].";

if the money is free:

now the money is nowhere;

now the price of the noun is \$0.00;

now the player is carrying the noun.

Understand "I want [something]" or "Give me [something]" or "I want to buy [something]" as buying.

The player carries a wallet. The wallet contains money. The price of the money is \$50.00. The printed name of the money is "[price of the money] in cash". Understand "cash" as the money.

Instead of taking the money:

say "Best to leave it alone until you need to buy something."

Instead of buying something free:

say "[The noun] is yours already."

Instead of buying the money:

say "The money belongs to you; you buy things with it."

The SoloCombo is an edible thing in the ConcessionStandNormal. The SoloCombo is scenery. The price of the SoloCombo is \$13.95. The printed name of SoloCombo is "Solo Combo". The description is "A bucket of popcorn and a drink. For those that don't want to share." Understand "Solo Combo" and "Solo" as SoloCombo.

The LoversCombo is an edible thing in the ConcessionStandNormal. The LoversCombo is scenery. The price of the LoversCombo is \$19.95. The printed name of LoversCombo is "Lovers Combo". The description is "A combo for two with one popcorn and two beverages. How romantic ♥ ." Understand "Lovers Combo" and "Lovers" as LoversCombo.

The FamilyCombo is an edible thing in the ConcessionStandNormal. The FamilyCombo is scenery. The price of the FamilyCombo is \$35.95. The printed name of FamilyCombo is "Family Combo". The description is "1 popcorn, 4 drinks and a box of candy. Enough to feed a hungry group." Understand "Family Combo" and "Family" as FamilyCombo.

The Popcorn is an edible thing in the ConcessionStandNormal. The Popcorn is scenery. The price of the Popcorn is \$9.95. The description is "Corn kernels popped in oil until puffed. Then coated in melted butter and sprinkled with salt."

The Pretzel is an edible thing in the ConcessionStandNormal. The Pretzel is scenery. The price of the Pretzel is \$6.95. The description is "A large soft pretzel with a side of processed cheese dip."

The Nachos is an edible thing in the ConcessionStandNormal. The Nachos is scenery. The price of the Nachos is \$7.95. The description is "Corn chips and a side of processed cheese dip."

The PizzaSlice is an edible thing in the ConcessionStandNormal. The PizzaSlice is scenery. The printed name of PizzaSlice is "Pizza Slice". The price of the PizzaSlice is \$6.95. The description is "A thick greasy slice of pepperoni pizza." Understand "pizza slice" and "pizza" as PizzaSlice.

The Soda is an edible thing in the ConcessionStandNormal. The Soda is scenery. The price of the Soda is \$5.95. The description is "A sweet carbonated beverage."

The Water is an edible thing in the ConcessionStandNormal. The Water is scenery. The price of the Water is \$2.95. The description is "Refreshing H2O."

The ChocolateRaisins is an edible thing in the ConcessionStandNormal. The ChocolateRaisins is scenery. The printed name of ChocolateRaisins is "Chocolate Raisins". The price of the ChocolateRaisins is \$3.95. The description is "Raisins covered in chocolate." Understand "Chocolate Raisins" and "raisins" as ChocolateRaisins.

The Candy is an edible thing in the ConcessionStandNormal. The Candy is scenery. The price of the Candy is \$3.95. The description is "A box of fruity gummy candy."

SECTION -- Ticket Mechanics

The ShowtimeList is a fixed in place object in TicketCounterNormal. The printed name of ShowtimeList is "List of Showtimes and Prices". The description is "[bold type]Showtimes[roman type][line break]Two Gents and a Showgirl - 5:00pm 7:00pm[line break]The Big MacGuffin - 4:45pm 7:30pm[line break]An

Honest Thief - 6:00pm[line break]Goodbye, Manhattan - 5:00pm 7:30pm[line break]Hotel Dracula - 4:50pm 7:15pm[line break]Road to Quay County - 5:30pm 8:45pm[line break][line break][bold type]Tickets[roman type][line break]Adults - \$7.95[line break]Seniors- \$6.95[line break]Children (under 3) - \$4.95[line break]Students - \$6.95 [line break]SUNDAY SPECIAL - \$5.00."

Understand "showtimes and prices" and "list of showtimes" and "list of showtimes and prices" and "showtimes" and "prices" and "list" as The ShowtimeList.

TGaaSTicket500 is a thing in the TicketCounterNormal. The TGaaSTicket500 is scenery. The price of the TGaaSTicket500 is \$5.00. The description is "An old fashioned [italic type]comedy[roman type][italic type]musical[roman type] in the old Vegas strip." The printed name of TGaaSTicket400 is "TICKET: Two Gents and a Showgirl – 5:00pm". Understand "Two Gents and a Showgirl - 500" and "Two Gents and a Showgirl - 500pm" and "Two Gents and a Showgirl at 500" and "Two Gents and a Showgirl at 500pm" and "Two Gents and a Showgirl for 500" and "Two Gents and a Showgirl for 500pm" and "Two Gents and a Showgirl 500" and "Two Gents and a Showgirl 500pm" as TGaaSTicket500.

TGaaSTicket700 is a thing in the TicketCounterNormal. The TGaaSTicket700 is scenery. The price of the TGaaSTicket700 is \$5.00. The description is "An old fashioned [italic type]comedy[roman type][italic type]musical[roman type] in the old Vegas strip." The printed name of TGaaSTicket700 is "TICKET: Two Gents and a Showgirl – 7:00pm". Understand "Two Gents and a Showgirl - 700" and "Two Gents and a Showgirl - 700pm" and "Two Gents and a Showgirl at 700" and "Two Gents and a Showgirl at 700pm" and "Two Gents and a Showgirl for 700" and "Two Gents and a Showgirl for 700pm" and "Two Gents and a Showgirl 700" and "Two Gents and a Showgirl 700pm" as TGaaSTicket700.

TBMTicket445 is a thing in the TicketCounterNormal. The TBMTicket445 is scenery. The price of the TBMTicket445 is \$5.00. The description is "A [italic type]comedy[roman type] [italic type]thriller[roman type]

type] about movie staff who learn that a [italic type]prop[roman type] might be more valuable than they originally thought...." The printed name of TBMTicket445 is "TICKET: The Big MacGuffin – 4:45pm". Understand "The Big Macguffin - 445" and "The Big Macguffin - 445pm" and "The Big Macguffin at 445" and "The Big Macguffin at 445pm" and "The Big Macguffin for 445" and "The Big Macguffin for 445pm" and "The Big Macguffin 445" and "The Big Macguffin 445pm" as TBMTicket445.

TBMTicket730 is a thing in the TicketCounterNormal. The TBMTicket730 is scenery. The price of the TBMTicket730 is \$5.00. The description is "A [italic type]comedy[roman type] [italic type]thriller[roman type] about movie staff who learn that a [italic type]prop[roman type] might be more valuable than they originally thought..." The printed name of TBMTicket730 is "TICKET: The Big MacGuffin – 7:30pm". Understand "The Big Macguffin - 730" and "The Big Macguffin - 730pm" and "The Big Macguffin at 730" and "The Big Macguffin at 730pm" and "The Big Macguffin for 730" and "The Big Macguffin for 730pm" and "The Big Macguffin 730" and "The Big Macguffin 730pm" as TBMTicket730.

AHTTicket600 is a thing in the TicketCounterNormal. The AHTTicket600 is scenery. The price of the AHTTicket600 is \$5.00. The description is "An old fashioned [italic type]comedy[roman type][italic type]musical[roman type] in the old Vegas strip." The printed name of AHTTicket600 is "TICKET: An Honest Thief – 6:00pm". Understand "An Honest Thief - 600" and "An Honest Thief - 600pm" and "An Honest Thief at 600" and "An Honest Thief at 600pm" and "An Honest Thief for 600" and "An Honest Thief for 600pm" and "An Honest Thief 600" and "An Honest Thief 600pm" as AHTTicket600.

GMTicket500 is a thing in the TicketCounterNormal. The GMTicket500 is scenery. The price of the GMTicket500 is \$5.00. The description is "A [italic type]Slice-of-Life[roman type] film about a young couple living in the lower west side in Manhattan." The printed name of GMTicket500 is "TICKET: Goodbye, Manhattan – 4:45pm". Understand "Goodbye Manhattan - 500" and "Goodbye Manhattan -

500pm" and "Goodbye Manhattan at 500" and "Goodbye Manhattan at 500pm" and "Goodbye Manhattan for 500" and "Goodbye Manhattan for 500pm" and "Goodbye Manhattan 500" and "Goodbye Manhattan 500pm" as GMTicket500.

GMTicket730 is a thing in the TicketCounterNormal. The GMTicket730 is scenery. The price of the GMTicket730 is \$5.00. The description is "A [*italic type*]Slice-of-Life[roman type] film about a young couple living in the lower west side in Manhattan." The printed name of GMTicket730 is "TICKET: Goodbye, Manhattan – 7:30pm". Understand "Goodbye Manhattan - 730" and "Goodbye Manhattan - 730pm" and "Goodbye Manhattan at 730" and "Goodbye Manhattan at 730pm" and "Goodbye Manhattan for 730" and "Goodbye Manhattan for 730pm" and "Goodbye Manhattan 730" and "Goodbye Manhattan 730pm" as GMTicket730.

HDTicket450 is a thing in the TicketCounterNormal. The HDTicket450 is scenery. The price of the HDTicket450 is \$5.00. The description is "A [*italic type*]B Horror[roman type] movie about a vampire run hotel." The printed name of HDTicket450 is "TICKET: Hotel Dracula – 4:50pm". Understand "Hotel Dracula - 450" and "Hotel Dracula - 450pm" and "Hotel Dracula at 450" and "Hotel Dracula at 450pm" and "Hotel Dracula for 450" and "Hotel Dracula for 450pm" and "Hotel Dracula 450" and "Hotel Dracula 450pm" as HDTicket450.

HDTicket715 is a thing in the TicketCounterNormal. The HDTicket715 is scenery. The price of the HDTicket715 is \$5.00. The description is "A [*italic type*]B Horror[roman type] movie about a vampire run hotel." The printed name of HDTicket715 is "TICKET: Hotel Dracula – 7:15pm". Understand "Hotel Dracula - 715" and "Hotel Dracula - 715pm" and "Hotel Dracula at 715" and "Hotel Dracula at 715pm" and "Hotel Dracula for 715" and "Hotel Dracula for 715pm" and "Hotel Dracula 715" and "Hotel Dracula 715pm" as HDTicket715.

RTQCTicket530 is a thing in the TicketCounterNormal. The RTQCTicket530 is scenery. The price of the RTQCTicket530 is \$5.00. The description is "A [italic type]western[roman type] set in New Mexico." The printed name of RTQCTicket530 is "TICKET: Road to Quay County – 5:30pm". Understand "Road to Quay County - 530" and "Road to Quay County - 530pm" and "Road to Quay County at 530" and "Road to Quay County at 530pm" and "Road to Quay County for 530" and "Road to Quay County for 530pm" and "Road to Quay County 530" and "Road to Quay County 530pm" as RTQCTicket530.

RTQCTicket845 is a thing in the TicketCounterNormal. The RTQCTicket845 is scenery. The price of the RTQCTicket845 is \$5.00. The description is "A [italic type]western[roman type] set in New Mexico." The printed name of RTQCTicket845 is "TICKET: Road to Quay County – 8:45pm". Understand "Road to Quay County - 845" and "Road to Quay County - 845pm" and "Road to Quay County at 845" and "Road to Quay County at 845pm" and "Road to Quay County for 845" and "Road to Quay County for 845pm" and "Road to Quay County 845" and "Road to Quay County 845pm" as RTQCTicket845.

TicketSign is a fixed in place object in TicketCounterNormal. TicketSign is scenery. The printed name of TicketSign is "Ticket Agent Instructions". The description is "TICKET AGENT INSTRUCTIONS[paragraph break]You can type in ASK ABOUT to inquire about the following services: [line break]PURCHASING [line break]SYNOPSES [line break]GIFT CERTIFICATES". Understand "sign" and "ticket agent instructions" and "instructions" as TicketSign.

TicketAgent is a person in the TicketCounterNormal. The printed name of TicketAgent is "Virtual Ticket Agent". The description is "Looks like the theater is trying to automate sales with a virtual ticket agent. A screen and keyboard-like device are set up for patrons to use. A small [bold type]sign[roman type] on the window gives instructions on how to use the system." Understand "screen" and "keyboard" and

"keyboard-like device" and "virtual agent" and "virtual ticket agent" and "ticket agent" and "agent" and "clerk" as TicketAgent.

Interrogating it about is an action applying to two things.

Understand "ask [something] about [anything]" as interrogating it about.

Check interrogating it about:

if second noun is not TicketAgent:

if noun is not a person:

say "You try to talk to [second noun], but receive no response.";

stop the action.

Instead of interrogating TicketAgent about something:

if second noun is TicketAgent:

say "I can answer your questions about the following topics: PURCHASING, SYNOPSES, GIFT CERTIFICATES";

else:

say "I am happy to answer questions about ticketing.".

Instead of asking TicketAgent about a topic listed in the Table of TAREsponses:

say "[line break][TA entry][paragraph break]".

Table of TAREsponses

Topic TA

"Purchasing" "To purchase a ticket, type in the Title and then the Showtime that you want. For example,

'Buy (MOVIE TITLE) 400pm' "

"Synopses" "To ask about a movie's synopsis, you can use the system to EXAMINE (MOVIE TITLE) while at the Ticket Counter."

"Gift Certificates" "At this time, we're currently revamping our gift certificate system to allow for reloadable cards. You have the option register as a user and save the balance to your account in case the card is lost or stolen. These user accounts will also allow you to build up points to redeem for discounts on tickets and concessions! We're sorry for any inconvenienced caused and hope that you'll take part in the updated system."

SECTION -- Arcade Mechanics

The AirHockeyTable is a fixed in place object in the ArcadeNormal. The AirHockeyTable is scenery. Understand "air hockey" and "hockey" and "air hockey table" and "hockey table" and "table" as AirHockeyTable. The description is "A flat topped, black and white table with a small red puck. You wish your friends were here, so you could play a round and lob the puck back a forth a few times."

The AirHockeyPuck is a fixed in place object in the ArcadeNormal. The AirHockeyPuck is scenery. Understand "puck" and "hockey puck" and "air hockey puck" as AirHockeyPuck. The description is "A small, flat, red disc used to play air hockey."

The ArcadeGame is a switched on fixed in place device in the ArcadeNormal. It is scenery. The printed name of ArcadeGame is "Night Watch". Understand "night watch" and "arcade game" and "promo sign" and "sign" as ArcadeGame. The description is "[if unvisited] You look on the sign and see 'New Game Promotion! Free play, today only! [end if] INSTRUCTIONS: Use the light gun to blast away vampires into oblivion! Try to SHOOT at the VAMPIRES with the LIGHT GUN!'".

Instead of switching off ArcadeGame:

stop the action.

The VampireBoss is a person in ArcadeNormal. VampireBoss can be known or unknown. The VampireBoss is scenery. The printed name of VampireBoss is "Vampire Boss". Understand "vampire" and "vampires" and "vampire boss" and "boss" and "enemy" as VampireBoss. The description of VampireBoss is "[if known]You look at the Night Watch cabinet and see a menacing looking fanged creature [otherwise] This must be one of the boss vampires of Night Watch [end if]".

The ArcadeCabinets are a fixed in place object in the ArcadeNormal. The ArcadeCabinets are scenery. Understand "cabinet" and "cabinets" as ArcadeCabinets. The description is "A closer look and you see a some interesting games in the arcade. One cabinet called 'Night Watch' has a promo sign on it."

A thing can be enemylike or unenemylike. A thing is usually unenemylike. VampireBoss is enemylike.

LightGun1 is a fixed in place object in the ArcadeNormal. The LightGun1 is scenery. The printed name of LightGun1 is "Light Gun". Understand "light gun" and "gun" as LightGun1.

A thing can be gunlike or ungunlike. A thing is usually ungunlike. LightGun1 is gunlike.

Understand "shoot at [something] with [something gunlike]" or "Play Nightwatch with [something gunlike]" or "play night watch with [something gunlike]" as ShootingWith. ShootingWith is an action applying to two things.

ShootingBlanks is an action applying to nothing.

Understand "shoot" as ShootingBlanks.

Carry out ShootingBlanks:

say "What are you trying to shoot?"

Check ShootingWith:

if LightGun1 is not visible:

say "What are you shooting with?";

stop the action;

if the second noun is not the LightGun1:

say "You can't shoot with that.";

stop the action;

else if noun is the player:

say "You try to shoot yourself with the Light Gun, but nothing happens.";

stop the action.

Carry out ShootingWith:

say "You take the Light Gun and shoot it at [noun]. Zap!";

stop the action.

A person has a number called maximum hit points. A person has a number called current hit points.

The maximum hit points of the player is 20. The maximum hit points of the VampireBoss is 20.

The current hit points of the player is 20. The current hit points of the VampireBoss is 20.

Instead of ShootingWith:

if the noun is enemylike:

let the damage be a random number between 1 and 5;

say "You shoot at the [noun] and cause [damage] points damage!";

decrease the current hit points of the noun by the damage;

if the current hit points of the noun is less than 0:

say "[line break]You've killed the head of the Vampire coven and saved this area! Try the full game to play more levels!";

stop the action;

let the enemy damage be a random number between 1 and 5;

say "[line break][The noun] attacks you, causing [enemy damage] points of damage!";

decrease the current hit points of the player by the enemy damage;

if the current hit points of the player is less than 0:

say "[line break]You think you can beat me? I will rule this world! [line break] Game Over.";

stop the action.

SECTION -- NPCs

Instead of examining the player:

say "You look fine. As good looking as ever."

The audience is a backdrop. The audience is in Screen1Normal and Screen2Normal and Screen3Normal and Screen4Normal and Screen5Normal and Screen6Normal.

The ConcessionCustomers are people in the ConcessionStandNormal. The ConcessionCustomers are scenery. The description is "Groups of customers purchasing snacks." Understand "concession customers" and "customers" as ConcessionCustomers.

Instead of talking to the ConcessionCustomers:

say "You don't see anyone you want to talk to."

The MovieGoers are people in the LobbySouthNormal. The MovieGoers are scenery. The description is "Teens with their friends, families with children, couples, and a few loners are busy going to their movies and buying concessions." Understand "people in the lobby" and "movie goers" and "lobby people" and "teens" and "families" and "families with children" and "couples" and "loners" and "people" as MovieGoers.

Instead of talking to the MovieGoers:

say "You don't see anyone you know."

DisinterestedStaff is a person in the HallwayEntranceNormal . The printed name of DisinterestedStaff is "disinterested staff". The description is "Some young people in vests stand near the wall and pretend to look busy.". Understand "disinterested staff" and "staff" as DisinterestedStaff.

Instead of talking to the DisinterestedStaff:

say ""Umm, sorry. I'm like, on break.""

ConcessionClerk is a person in the ConcessionStandNormal. The printed name of ConcessionClerk is "Concession Clerk". The description is "A young lady waits to help a customer at the cash register."

Understand "young lady" and "clerk" and "concession clerk" and "employees" and "employee" and "concession employee" and "concession employees" as ConcessionClerk.

some kids are people in the ArcadeNormal.

some kids are scenery. Understand "kids" and "kid" as some kids.

The description of some kids is "The kids are lost in their game and pay no attention to you or their surroundings."

TeenEmployee is a person in the LobbyNorthNormal. Understand "teen employee" and "teenaged employee" and "employee" as TeenEmployee. The printed name of TeenEmployee is "teen employee". The description is "A junior employee wearing a worker's vest."

Instead of talking to TeenEmployee:

say "You try to talk, but [one of]he[or]she[purely at random] [one of]is unphased[or]doesn't want to chat[or]just sighs[purely at random]."

Every turn:

move TeenEmployee to a random room;

if TeenEmployee is in the location of the player:

say "A teenaged employee [one of]aimlessly mills about[or]sweeps the floor[or]plays on their phone in the corner[or]attempts to assist a customer[as decreasingly likely outcomes]."

APPENDIX B

WALKTHROUGH TRANSCRIPT

Sidewalk

You step up to the entrance and can't help but feel awe. The Phoenix 6 is a six screen multiplex that has a sort of dignity that only the passing of time can give. Much of the original art deco facade was preserved through the years and even matched to the expansion that came along several decades later. To the west and east you can see the outer building. Go north for the ticket counter.

>w

Outer Building - West

To the west side of the theater you see rows of shrubbery and some weather resistant frames housing the latest movie posters. The perfect place for teens to loiter while they wait on their ride. To the east is the sidewalk.

>x shrubbery

It is a good shrubbery. I like the laurels particularly.

>e

Sidewalk

To the west and east you can see the outer building. Go north for the ticket counter.

>e

Outer Building - East

To the east side of the theater you see rows of shrubbery and some weather resistant frames housing the latest movie posters. The perfect place for teens to be dropped off by their parents. To the west is the sidewalk.

>x frames

This poster has a giant skull and says "Golgotha". You've never heard of this movie before.

>x frames

Rocky Mountain High: A stoner comedy musical with music by the late John Denver. Two best friends get lost during a road trip in Colorado on their way to a food truck contest. Will they make it in time to win the prize money and save their struggling start-up?

You hear a charismatic voice boom over the speaker system, "Try our great deals on snacks and beverages at the concession stand before you settle in!"

>x frames

This poster says "Continental Divide" a rom-com about a young man from Argentina and his girlfriend from Kansas and the hijinks that happen when their families meet.

>define poster

You read: "a large printed picture or notice put up for advertising or decoration (Cambridge Dictionary, 2018)"

>look

Outer Building - East

To the east side of the theater you see rows of shrubbery and some weather resistant frames housing the

latest movie posters. The perfect place for teens to be dropped off by their parents. To the west is the sidewalk.

>w

Sidewalk

To the west and east you can see the outer building. Go north for the ticket counter.

>n

Ticket Counter

Situated under the marquee is the ticket counter. To the south is the sidewalk and around the side and to the north is the lobby.

As you approach the area, a screen in the window lights up.

You can see a List of Showtimes and Prices and Virtual Ticket Agent here.

>what is marquee

You read: "a : a permanent canopy often of metal and glass projecting over an entrance (as of a hotel or theater). "The hotel doorman was stationed under the marquee."

b : a sign usually over the entrance of a theater or arena that displays the names of featured attractions and principal performers. "The brightly lighted marquee displayed the title of the movie currently featured. (Merriam-Webster, 2018)""

>x screen

Looks like the theater is trying to automate sales with a virtual ticket agent. A screen and keyboard-like device are set up for patrons to use. A small sign on the window gives instructions on how to use the system.

>x ticket agent

Looks like the theater is trying to automate sales with a virtual ticket agent. A screen and keyboard-like device are set up for patrons to use. A small sign on the window gives instructions on how to use the system.

>x keyboard

Looks like the theater is trying to automate sales with a virtual ticket agent. A screen and keyboard-like device are set up for patrons to use. A small sign on the window gives instructions on how to use the system.

>x sign

TICKET AGENT INSTRUCTIONS

You can type in ASK ABOUT to inquire about the following services:

PURCHASING

SYNOPSES

GIFT CERTIFICATES

>ask ticket agent about purchasing

To purchase a ticket, type in the Title and then the Showtime that you want. For example, "Buy (MOVIE TITLE) 400pm"

>ask ticket agent about synopses

To ask about a movie's synopsis, you can use the system to EXAMINE (MOVIE TITLE) while at the Ticket Counter.

>look

Ticket Counter

Situated under the marquee is the ticket counter. To the south is the sidewalk and around the side and to the north is the lobby.

As you approach the area, a screen in the window lights up.

You can see a List of Showtimes and Prices and Virtual Ticket Agent here.

>x list of showtimes

Showtimes

Two Gents and a Showgirl - 5:00pm 7:00pm

The Big MacGuffin - 4:45pm 7:30pm

An Honest Thief - 6:00pm

Goodbye, Manhattan - 5:00pm 7:30pm

Hotel Dracula - 4:50pm 7:15pm

Road to Quay County - 5:30pm 8:45pm

Tickets

Adults - \$7.95

Seniors- \$6.95

Children (under 3) - \$4.95

Students - \$6.95

SUNDAY SPECIAL - \$5.00.

>buy hotel dracula 450pm

You pay \$5.00 for TICKET: Hotel Dracula - 4:50pm, leaving yourself with \$45.00.

>look

Ticket Counter

Situated under the marquee is the ticket counter. To the south is the sidewalk and around the side and to the north is the lobby.

As you approach the area, a screen in the window lights up.

You can see a [List of Showtimes and Prices](#) and [Virtual Ticket Agent](#) here.

>n

Lobby - South

A bustling lobby filled with similarly enthusiastic movie goers. The arcade is west. You can go further down the lobby to the north. The aroma from the concession stand wafts to you from the east.

>w

Arcade

You step into a nook adjacent to the lobby and enter the arcade. There are some kids playing at an air hockey table, volleying the puck back and forth. A few cabinets against the wall flash their lights and

noisily play chiptunes, attempting to seduce you or any passerby of your spare change. The Lobby is back to your east.

>x kids

The kids are lost in their game and pay no attention to you or their surroundings.

>x puck

A small, flat, red disc used to play air hockey.

>x cabinets

A closer look and you see a some interesting games in the arcade. One cabinet called "Night Watch" has a promo sign on it.

>x night watch

You look on the sign and see "New Game Promotion! Free play, today only! INSTRUCTIONS: Use the light gun to blast away vampires into oblivion! Try to SHOOT at the VAMPIRES with the LIGHT GUN!"

The Night Watch is currently switched on.

>shoot at the vampires with the light gun

You shoot at the Vampire Boss and cause 5 points damage!

The Vampire Boss attacks you, causing 3 points of damage!

>shoot at the vampire boss with the light gun

You shoot at the Vampire Boss and cause 2 points damage!

The Vampire Boss attacks you, causing 3 points of damage!

>shoot at the vampire boss with the light gun

You shoot at the Vampire Boss and cause 2 points damage!

The Vampire Boss attacks you, causing 1 points of damage!

>shoot at the vampire boss with the light gun

You shoot at the Vampire Boss and cause 1 points damage!

The Vampire Boss attacks you, causing 4 points of damage!

>shoot at the vampire boss with the light gun

You shoot at the Vampire Boss and cause 4 points damage!

The Vampire Boss attacks you, causing 2 points of damage!

>look

Arcade

A few cabinets against the wall flash their lights and noisily play chiptunes, attempting to seduce you or any passerby of your spare change. The Lobby is back to your east.

>e

Lobby - South

A bustling lobby filled with similarly enthusiastic movie goers. The arcade is west. You can go further down the lobby to the north. The aroma from the concession stand wafts to you from the east.

>e

Concession Stand

You step into a wide alcove on the east side of the lobby and your senses are overwhelmed with the sights, sounds, and smells of the concessions stand. The employees behind the counter are managing the popcorn machines, tending to customers at the counter and pouring sodas. You see groups of customers and a menu above the counter. The Lobby is back to the west .

You can see a Menu and Concession Clerk here.

>x popcorn machines

I only understood you as far as wanting to examine the Popcorn.

>x popcorn

Corn kernels popped in oil until puffed. Then coated in melted butter and sprinkled with salt.

It costs \$9.95.

>x menu

you can "look at" or "examine" any of the items on the menu to get more information

Menu

Solo Combo - \$13.95

Lovers Combo - \$19.95

Family Combo - \$35.95

Popcorn - \$9.95

Pretzel - \$6.95

Water - \$2.95

Nachos - \$7.95

Pizza Slice- \$6.95

Soda - \$5.95

Chocolate Raisins - \$3.95

Candy - \$3.95.

>x candy

A box of fruity gummy candy.

It costs \$3.95.

>x pretzel

A large soft pretzel with a side of processed cheese dip.

It costs \$6.95.

>buy soda

You pay \$5.95 for the Soda, leaving yourself with \$39.05.

>buy pizza slice

You pay \$6.95 for the Pizza Slice, leaving yourself with \$32.10.

>buy chocolate raisins

You pay \$3.95 for the Chocolate Raisins, leaving yourself with \$28.15.

>look

Concession Stand

You see groups of customers and a menu above the counter. The Lobby is back to the west .

You can see a Menu and Concession Clerk here.

>x customers

Groups of customers purchasing snacks.

>x clerk

A young lady waits to help a customer at the cash register.

>w

Lobby - South

A bustling lobby filled with similarly enthusiastic movie goers. The arcade is west. You can go further down the lobby to the north. The aroma from the concession stand wafts to you from the east.

>n

Lobby - North

The red carpet continues to guide you through the lobby. The screens are to the north. You can go toward

the ticket counter, arcade and concession stand back south.

>x red carpet

Plush red carpet makes all the guests feel like celebrities.

>n

Hallway - Entrance

The entrance of the hallway, you see disinterested staff waiting to help wayward customers. Screens 1, 4, and 5 are to the west and 2, 3, and 6 are to the east. There's an elevator here, but it appears to be under repair for the moment. The lobby is back south.

You can see disinterested staff here.

>x staff

Some young people in vests stand near the wall and pretend to look busy.

>talk to staff

"Umm, sorry. I'm like, on break."

>w

Hallway - West

A hallway on the west wing. You can go further west down the hall or back east toward the lobby. The men's room is to the south and a door marked "storage closet" is to your north.

>s

Men's Restroom

An empty men's washroom with a few urinals and stalls. Though not particularly big, it seems to be well kept. You can go north to get back out to the hallway.

>x urinal

A urinal.

>pee in urinal

Ahhh~ You feel much better now.

>wash hands

What do you want to wash hands in?

>wash hands in sink

Fresh and clean!

>n

Hallway - West

A hallway on the west wing. You can go further west down the hall or back east toward the lobby. The men's room is to the south and a door marked "storage closet" is to your north.

>n

(first opening Storage Door)

Doesn't seem you can open this door. You probably shouldn't be here anyway.

>s

Men's Restroom

An empty men's washroom with a few urinals and stalls. Though not particularly big, it seems to be well kept. You can go north to get back out to the hallway.

>n

Hallway - West

A hallway on the west wing. You can go further west down the hall or back east toward the lobby. The men's room is to the south and a door marked "storage closet" is to your north.

>w

Hallway - West

A hallway on the west wing. You can go further west down the hall or back east toward the lobby. Screen 5 is to the south and Screen 1 north.

>s

Screen 5

A dark room with rows of seating and a giant screen; there are groups of people here and there. The hall is to the north.

>x audience

You see nothing special about the audience.

APPENDIX C

VOCABULARY LIST

1. Movie
2. Screen
3. Motion Picture
4. Multiplex
5. Marquee
6. Ticket Counter
7. Counter
8. Arcade
9. Film Cans
10. Film Reel
11. Projector
12. Posters
13. Poster
14. Promo
15. Flick
16. Series
17. Installment
18. Mystery/Crime Thriller
19. Mystery
20. Crime Thriller
21. Thriller
22. Trailer
23. Stoner Comedy
24. Rom-Com
25. Romantic Comedy
26. Comedy
27. Musical
28. Slice-of-Life
29. Slice of Life
30. Horror
31. B-horror
32. B horror
33. B movie
34. Action
35. Western
36. Genre
37. Prop