Interactive Fiction

This paper is an exploration of how a set of interactive fiction (IF) games fit into the space of narratology, ludology, narrative, and interactivity. The games are Zork I: The Great Underground Empire by Infocom, Photopia by Adam Cadre, and two works by Emily Short, Galatea and Savoir-faire.

Listen -> Think -> Speak Loop of IF

The listen think loops in IF is simple in its form. The game opens with some descriptive text to give the player some idea of the current setting then prompts the user for input. Input consists of a verb with the possible addition of one or more objects. The input is processed and either the game world is updated and relevant information is spoken to the player or the player gets a message that the input was not understood or had no effect. The game then renews the loop by listening for player input once again. In short, text in -> world update -> text out.

Properties of IF as a Medium

The media in IF as used in the four discussed games are very similar to language as a narrative medium. One of the major differences between language and IF is that the human to IF communication is limited; the number of verbs and nouns recognized by the game is nowhere near the amount recognized by a human player.

Modes of Interactivity

Of the interactive fiction studied in this paper, all fit into a small range of the narrative modes described by Ryan. All of the games are internal; they put the playing into an avatar in the world. This avatar’s movement and actions are controlled by the player. While playing Zork, the actions the player take can have some dire consequences on the resultant story: she can forget about the lantern and be eaten by a grue in the dark or she can drop an item in a bad location. These player actions would result in the player dying or being unable to progress in the game. In Galatea, the directions in which you steer the conversation with Galatea will influence her emotional state which affects the rest of the plot. It even has an effect on the facts of the game world. This is evident by playing the ending in which you discover that there has been a women behind the black velvet curtain. If you play the game again and immediate look behind the curtain, no one is there. They way you play Galatea has a direct effect on the game world. Savior-faire is much like Zork in that it is primarily a puzzle game in which the player's actions via the avatar (Pierre in this case) directly affect the game world (the player can get stuck). These three games are ontological because the player directly effects the story presented to the player. The space of plot points in Photopia more closely resemble the accordion-like structure akin to musicals and action films. The interaction is presented between static plot points. The player is able to perform actions between plot points that do not affect the plot but is always made to follow in the game's proscribed plot. This makes Photopia break the streak of the three internal/ontological games by being internal/exploratory.

Narrative Dimensions

Each of the four interactive fiction examples has fits into the eight narrative dimensions described by Ryan in slightly different ways. For convenience and understandability, each dimension
is discussed with respect to each game in the following list:

1. All of the IF examples have worlds populated with existents. The player, Alley, Galatea, and Pierre are all existents.
2. Tolls die, Galatea's position and mental state changes, Alley grows, and objects become magically linked – all of which are examples of the world undergoing significant change.
3. The player changes the world with non-habitual events in each of the four games due to the game world forcing the player into either creating or participating in such events.
4. The player's character, by virtue of being controlled by a human, has a mental life and responds emotionally while participating in events. Since each game involves a human-controlled character, this dimension exists in all games.
5. Non-mental actions happen in each IF: grues eat the player in Zork, roses are removed from doors in Savoir-faire, Galatea talks, and seed pods grow in Photopia.
6. Photopia and Galatea both always end and consist of a causal chain of events. On the other hand, both Zork and Savoir-faire do not meet this dimension to the same degree as the other two games. They are able to reach game states in which the game does not end (of this I am not completely sure; can you get stuck in a place with no way to leave, no way to be in the dark to be eaten by a grue, and have no chance of a thief attack?). I am assuming that closing the IF and the restart and exit commands do not count as either part of a unified causal chain or proper closure.
7. Because the examples given by the temporal dimensions (numbers 2 and 3) factually happen in the game world, this dimension is well met by all of the example games.
8. As this dimension is judged completely subjective and what is judged changes with each judge, this dimension cannot be given a generic value based on what is present in the examples. Solving puzzles, participating in engrossing stories, or even being complete frustrated by a complex puzzle can be seen as meaningful to the right participant.

Narrative Modes

Given the medium of IF is predisposed to text, the four games are all external mode. As is expected from interactive fiction, all of our examples are of emergent mode rather than scripted and are fictional as opposed to nonfictional. With similar reasons, they are also participatory as opposed to receptive. The stories in IF are not static and change with interaction from the player. This puts them into the realm of simulative mode. Both the diegetic and mimetic modes are present just as in a novel. Although the games are primarily diegetic with the dialog being mimetic, Zork and Savoir-faire have less actual spoken dialog than Photopia and Galatea.

The IF examples are further divided when the autotelic/utilitarian distinction is considered. Once again, the divide is between the puzzle games and the story games: Zork and Savoir-faire both have plot that serves their puzzle nature while Photopia's story exists for its own sake. Galatea is a bit more complicated in that it exists to for the player to explore Galatea. While stories result from from the exploration, the exploration seems to be the focus. When Jenkin's notion of embedded narratives is considered, the events shown in separate explorations of Galatea are the fabula and the story the player comes away after considering all of his play experiences is the fabula.

To differentiate between the autonomous and illustrative narrative modes, each IF needs to be considered separately. Zork is a story composed from bits a pieces of pre-existing stories (trolls and grues). While it is technically not a retelling of an existing story, it is not completely new to the player. Photopia is a new story in its own right and is clearly autonomous. Galatea is a story based on the
myth of Pygmalion. As Pygmalion provides only a basic framework for the story, Galatea is just as much autonomous as it is illustrative. Lastly, Savoir-faire is largely autonomous while borrowing themes and setting from a snapshot of a cultural space-time.

All of the IF stories lie between the determinate and indeterminate modes as described by Ryan. Each have more than a start point, and end point, and an undefined middle and less then a fully structured, static plot. Zork and Galatea most closely resemble indeterminate plots as they define starting points (you are placed in a world to solve puzzles and get loot or you are at an art gallery in front of a sculpture) and end points (you get all the loot and have solved all the puzzles or the story ends in a variety of preset ways) and a middle that has a slight structure to it (plot by successive puzzles or plot points depending on how the interaction between the player and Galatea proceeds). While Savoir-faire has slightly more plot framework in the form of a story that progresses as the player plays, the middle of the story is still quite unset. Photopia has the most determinate story with several meaningful, set plot points. While there is some room for the player to explore, the room between sections of plot framework are small.

Zork narrates very much in terms of what is currently happening and is primarily of simultaneous mode. Savior-faire is mostly simultaneous with bits of retrospective mode added at points where Pierre remembers the past. Galatea is of simultaneous mode with topics ranging from a fair amount of retrospective mode with dialog about and remembering the past and a low amount of postulation about the future (both future plans and ambitions from Galatea and the character the player inhabits). Photopia is the most temporally diverse of the four IF pieces. The character which the narrative focuses around switches throughout the story which results in the current time and location making drastic changes. Information about the future and past are covertly and overtly placed around the story to help tied the fabula together for the player.

There is little to say about the qualities of the literal/metaphorical mode of these IF stories other than their autonomous and illustrative qualities.

Material and Formal Affordances

The action verbs and the set of objects they can act upon are the material affordances of all four IF games. The set of actions and objects they can act upon are relatively small in Zork when compared to the other IF games but is still rather large. The formal affordances are even less abundant and more obfuscated than the material actions. This leaves me of the opinion that Zork has unbalanced affordances and a lessened sense of agency when compared to the three other IF games. Photopia has a moderate amount of material affordances and a good number of formal affordances. A majority of the material affordances match well and are pertinent to the formal affordances. Since I believe Photopia's affordances to be well balanced, the agency is high. Similarly well-balanced is Galatea. While it has a reduced set of material affordances, the enlargement and enrichment of the actions the player is able to take that make sense in a small-scale conversation keeps the number of material affordances high. This is a good match for the rich, formal affordances that appear with the exploration of the sculpture, Galatea, and of the character through which the game is focalized. Between the agency levels of Photopia and Zork lies Savior-faire. Savior-faire has an extremely large number of material affordances and a large set of formal affordances. Past gameplay, this imbalance of affordances is partially described in the Gamasutra interview with Emily Short in which she started the formal affordances with a single sentence plot description then created the gameplay/material constraints. After the gameplay was finished, she filled in the majority of the formal constraints.
Narrative Strategies

Each of the IF works employs a set of Jenkin's narrative strategies. Only the narrative strategy of emergent narratives is not employed by the four games. Galatea and Savoir-faire use evocative spaces to a large degree while the space in which Zork takes places is a very generic blending of pre-existing spaces that only serves evocatively to small degree. Of the four, only Zork is peripherally associated with enacting stories. Since it is a the first game of a series of games, Zork establishes the world and is in turn further defined by the succeeding games in the series. Savoir-faire, Galatea, and Photopia make good use of embedded narratives. All have a syuzhet that is different from the fabula built in the mind of the player. Galatea consists of many different instances of syuhet which when considered as a whole comprise the fabula. Savoir-faire disjointly presents the story of what happened to the count and establishes how Pierre is implicated through the player processing the plot. Photopia provides a complex, definite syuzhet (how much detail the player learns about each part of the syuzhet depends on the actions the player takes) that creates an delicate fabula after being processed by the player.