# The Game's Afoot: Designing Sherlock Holmes

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#### ABSTRACT

A videogame based on the Sherlock Holmes' stories by Arthur Conan Doyle is an interesting design challenge, which commercial games have tackled only half-heartedly. This paper discusses this challenge by examining the game design strategies across preexisting games, then proposes a new set of strategies that would help players become the dweller of 221B Baker Street. The design critique of the games focuses on the actions available to players to become a detective, and the aspects of the interactivity that invite the player to become Sherlock Holmes. The suggested design strategies to encourage detective work are based on prompts from the original stories, such as disguising oneself, doing chemical analyses, or turning the process of deduction into game mechanics.

#### Keywords

Game design, narrative, adventure games, adaptation, detective fiction

#### INTRODUCTION

Since Arthur Conan Doyle wrote *A Study in Scarlet* in 1886, the character of Sherlock Holmes has been the protagonist of a myriad works across media, from novellas and short stories to plays, radio shows, films, TV shows, comics, and now videogames. The tradition of games inspired by the character of Sherlock Holmes can be traced back to home computer games in the early 1980s, with *Ripper!* (Winnie & Baronett 1984) and *Sherlock* (Melbourne House 1984) being two of the earliest.

Most of the Sherlock Holmes videogames belong to the genre of adventure games, and thus share traits with games like *Zork: The Great Underground Empire* (Infocom 1980), *King's Quest* (Sierra On-Line 1984), *The Secret of Monkey Island* (Lucasfilm Games 1990), *Myst* (Cyan 1993), or more recently *Machinarium* (Amanita Design 2009) and *Heavy Rain* (Quantic Dream2010). The main mode of gameplay in adventure games is puzzle-solving, where the player explores the world to gather information in order to learn how the game world works (Fernández Vara 2009). The player controls a character who carries out the player's commands in the world—this is typically Holmes; in a few occasions the player controls his companion John Watson or both of them alternatively. Adventure games are thus a natural fit for detective stories, since an essential part of their gameplay involves exploration of the environment (talking to people, examining and gathering objects, trying different actions) before solving the puzzles, whose solution ideally derives from the information gathered during the exploration phase. Sherlock Holmes combines superior intellect and acumen with charisma and the occasional stint as a man of action, qualities that make him an appealing character to play.

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The main issue with the pre-existing games inspired by Doyle's character, however, is that adventure game conventions miss the opportunity to turn Holmes into an interesting character to play. These games usually fall into tropes that players are familiar with, such as lock-and-key puzzles or long dialogues trees, rather than encouraging the players to use "the art of deduction" as a gameplay strategy to solve the case. What is worse, the player does not usually do any mystery-solving; rather, they see the reasoning behind the case in cut-scenes, reducing gameplay to navigation and object-scavenging.

Adapting Sherlock Holmes' stories to digital games is a game design problem. The characters of Holmes and Watson are associated with an engaging and distinctive set of actions. However, these design promises have hardly been tackled by pre-existing digital games inspired by the stories of Arthur Conan Doyle. What they lack is giving the player the opportunity to *become* Sherlock Holmes, tackling the mystery as he would. In a game where the player is Holmes, the player should be allowed to perform as the character, in similar way to how an actor performs in a play. In order to understand the design process of a game of this type, I examine the actions that define Holmes and thus define the potential mechanics of the game; then, I analyze the design of selected Sherlock Holmes games. Finally, I suggest several design strategies that would allow the player to act like Holmes in a videogame, with examples from other non-Holmes videogames to show that the problem is not about technology or budget, but following a specific design approach.

## VIDEOGAME ADAPTATION

The process of videogame adaptation is often misunderstood, basically because adaptation in general is not well understood to begin with. There is often an excessive focus on adaptation as the reproduction of a series of events from one medium to another, based on theories of adaptation such as Seymour Chatman's (1980). In this respect, adaptation is understood as a re-enactment of the events described in other media. This view of adaptation is a bit short-sighted, since even in the case of adaptation from theatre to film, or novel to theatre, not all events are replicated in the translation from one medium to another. Some events are left out, others are compressed, and some may even change completely, e.g. characters become combinations of several people or are left out. In some cases, these would be more properly called *transmedia* works (Jenkins 2008), rather than adaptations, in that they are different incarnations of the same world across media.

One concept to define the process of adaptation of a narrative into videogames is procedural adaptation (Weise 2009). This approach identifies the rules of the fictional world (in a film or a novel, for example), and the actions (verbs) that define it, i.e. its procedures. Procedural adaptation takes the source text and translates it into a basic set of actions, which lay the foundations of the game world and its rules. Although this paper uses procedural adaptation as a starting point, what I am interested in is the player as a performer in the game world.

Designing a game often means determining the rules of the performance. The game must work within certain constraints that give way to specific behavior. Schechner (2006) defines the act of performance as *restoration of behavior*, by which abstract behavioral scripts, such as a ritual or a sport, are enacted in a concrete manner as a performance activity. Playing a game thus means restoring the behaviors that the design encourages, actualizing them as a set of concrete actions (Schechner 2009; Fernández Vara 2009). How the behavior is restored depends on the player and their play style, and how much room the player has to improvise and create new scripts. For example, when playing Super Mario Bros., (Nintendo, 1985) players may want to pick up every single coin on the screen, or visit every single level, or complete the game in the least time possible. These are all instances of restoring the behavior of playing Super Mario Bros., all different but still based on the same core set of actions.

Designing a game based on the adventures of Sherlock Holmes should therefore provide behavioral scripts that allow player to act like a detective. The game design should provide a repertoire of core mechanics that allow the player to restore the behavior as if they were Sherlock Holmes. Adventure games do not always provide the room for players to have radically different play styles, other than maybe the order to do things and how systematically they explore the environment. The constraints in the behavioral script also mean that players have a relatively tight set of behaviors to restore, enacting the events that have been designed for the game in the form of puzzle-solving.

The following sections identify the core behaviors of Sherlock Holmes, as described in Doyle's stories, compare them with the behaviors restored in pre-existing games based on the character, and finally propose a series of design strategies to design a game where the player would perform as the famous dweller of 221B Baker Street.

#### Sherlock Holmes: A Man Defined by his Actions

Arthur Conan Doyle's stories have been widely adapted and appropriated in the media, as well as inspired original stories based on the character, very much like other popular literary characters such as Count Dracula (Browning and Picart 2010) or James Bond (Bennet and Woolacott 1987). Part of the appeal of the stories is Holmes as an iconic character, associated with a recognizable image (the hook nose, the deer hat and the curvy smoking pipe), specific catch-phrases, and the charisma of a brilliant mind.

The status of Holmes and Watson in popular culture makes them great candidates to star in a videogame—both characters have a series of recognizable behavioral scripts according to their personalities. There is no need to have a tutorial because players will likely be familiar with who they are, so they can re-enact the characters' behavioral scripts while playing the game.

The relationship between detective stories and games was discussed by Bernard Suits (1985), who understands the writer of detective stories as a "gamewright" who challenges the reader-as-player to solve the mystery before reaching the end of the story. Turning a detective story into a digital game therefore seems a natural step. There is a catch, though—reproducing the mysteries from a pre-existing story means the player may already know the solution if she has read the story. In the case of Sherlock Holmes, the game designer has to devise new mysteries while trying to invoke the fictional world associated with the character. This is not unlike recent adaptations of the works—the recent films *Sherlock Holmes* (2009) and *Sherlock Holmes: A Game of Shadows* (2011) develop original stories; whereas the BBC television show *Sherlock* (2010-) reconfigures the original stories into a new series of events set in contemporary England.

Turning Doyle's stories into a game follows a similar approach. The design should not reproduce the events of the story, but incorporate the behaviors of the characters and the rules of the world—that is, use procedural adaptation. The goal of the game is to solve the mystery within the constraints of the game design. What a detective does is to reconstruct the story of what happened, based on facts and evidence, so that the solution to the mystery matches the events that led to the crime or mischief that starts the case.

Here is the design challenge: a detective game is a game of *story-building*, where the player reconstructs the true events of the story.

The method here proposed to design a game based on Sherlock Holmes centers around the character of Holmes as the player character. In order for the player to restore the behavior, the designer must identify the behavioral scripts of the character. It's not enough to don the jacket and the hat, or speak with a posh accent—one must behave like a detective.

## What Sherlock Holmes Does

Holmes as a character has a distinct personality—shrewd, dispassionate, exacting, methodical. He is also defined by a series of behaviors, listed below as narrated in the original novellas and stories. The corpus used here consists of the canonical works written by Doyle, which consists of four novellas (Doyle and Klinger 2005) and fifty-six short stories collected in five books (Doyle and Klinger 2004). According to these works, these are the core behaviors that define the character.

#### Uses sources efficiently

As Harris Taylor notes (104, 2012), Sherlock Homes is a master of information resources, "from his own files to daily newspapers to the Baker Street Irregulars and reformed criminal Shinwell Johnson." He has his ways to get information, from becoming engaged to a maid ("The Adventure of Charles Augustus Milverton") to putting an ad in the newspaper ("The Adventure of the Blue Carbuncle"). In order to solve a case, Holmes needs to gather the most detailed and reliable information possible--his job is using what he calls the "Art of Deduction" (*A Study in Scarlet*) to make the best of it.

#### Employs science and vast knowledge

Holmes is a also budding scientist; he uses early forensic practices in order to solve each case. Roland Thomas (2004) notes that the scientific methods described by Doyle, such as fingerprinting, were well ahead of their time. In his time, these may have seemed futuristic methods, even though they were already feasible. "The Adventure of the Norwood Builder" for example, is an early instance of the use of fingerprinting to identify a suspect.

His temperament is also scientific—Holmes tackles his cases in a dispassionate manner, as opposed to the previous Romantic notions that had to do with nature. The lack of emotional involvement invokes the objectivity necessary to operate within the scientific method. His Art of Deduction involves observing the world closely, paying attention to minute details to learn, for example, what somebody's profession may be. This is how he figures out, for instance, that Mary Sutherland, the client in "A Case of Identity," is a typist by observing an extra crease along the cuff of her sleeves, and that she is short-sighted by observing the mark of a pince-nez on her nose.

#### Is keenly perceptive

Holmes has a keen sight, as well as the tools to extract fine-grained detail from the environment. Apart from the deer hat and the smoking pipe, the other prop that characterizes Holmes is the magnifying glass. This object has a clear behavioral script associated to it—it allows the examiner to see a larger image of a specific area, where the additional details provide valuable information for the viewer. For example, in *A Study in Scarlet*, he uses the magnifying lens and measuring tape to figure out the age of the

suspect, the type of shoes that he wore, the type of tobacco he smoked, and that he had long fingernails. This is all based on the traces left by the suspect, minute marks and materials that may only be observable with the aid of a lens.

The microscope is another tool to obtain evidence that would otherwise be invisible to the human eye—"The Adventure of Shocombe Old Place" starts with Holmes using the instrument to detect traces of glue in the cap left at a crime scene; those glue traces identify the owner as a frame-maker, a profession that habitually uses glue.

## Chemistry

Another aspect of Sherlock the scientist is his interest in chemistry, which makes materials speak to him. When Watson meets Holmes for the first time in *A Study in Scarlet*, he has just discovered a chemical method to identify whether a stain is blood or rust or mud, and determine if it's old or new. Holmes is also an expert in tobacco ash, having written a monograph on 140 varieties of tobacco ash ("The Boscombe Valley Mystery"); he is also familiar with the effects of different types of poison, as well as is able to identify types of soil within a fifty-mile radius ("The Five Orange Pips").

## Uses deception and disguises

Holmes is very skillful not only at disguising himself, but also at pretending to be somebody else. He disguises himself as a plumber ("The Adventure of Charles Augustus Milverton"), an old man addicted to opium ("The Man with the Twisted Lip"), a groom and a clergyman (*A Study in Scarlet*), an old seaman (*The Sign of the Four*), and a bookseller ("The Empty House"). The art of disguise and acting allow Holmes to infiltrate spaces and obtain information. He needs to mingle and obtain information from working-class people, who would be tipped off by his fancy clothes and posh accent. By blending in, Holmes can also follow people and learn their routines or whom they talk to.

## Smoking and drug use

At the time Doyle wrote his stories, smoking was a fashionable habit, and cocaine or morphine were not illegal (although opium was). Holmes uses drugs as a way to sharpen his already keen mind: "I suppose that its influence is physically a bad one. I find it, however, so transcendently stimulating and clarifying to the mind that its secondary action is a matter of small moment." (*The Sign of the Four*). Drugs are therefore a means to change his perception and way of thinking, finding the creative connections between ideas that help the detective solve the case.

## Fighting

Both Holmes and Watson carry guns with them, although they are used as a defensive or persuasive device (e.g. *The Sign of the Four* or *The Hound of the Baskervilles*) or to pistol-whip an opponent ("The Empty House," "The Adventure of the Three Garridebs"); same with swords and canes. For Holmes, violence is always a last resort, which usually takes place during the climax of the story, as the last desperate attempt of a culprit to escape or as the final confrontation with the beast in *Hound of the Baskervilles*.

Sherlock Holmes can stand his ground during a physical fight—he is a trained boxer with exceptional fighting skills (*The Sign of the Four*, "The Gloria Scott," "The Yellow Face"). It was his training in martial arts and physical superiority that finally allowed him to overcome Moriarty in their final fight at the Reichenbach Falls ("The Final Problem").

In spite of the physical prowess of Holmes and Watson's military training, physical violence is not one of their memorable character traits. Fighting usually happens quickly and is usually described succinctly—as opposed to how Holmes relishes in explaining step by step how he applies the Art of Deduction.

This breakdown of Holmes' actions provides us with a core set of actions that define the character. In the next section, we will compare these with the core mechanics of the videogames based on Sherlock Holmes.

#### Sherlock Holmes: The Videogames

The specialized website Mobygames.com lists thirty-six titles dealing under "Fictional Character: Sherlock Holmes". For the sake of brevity, this paper will only deal with a selection of the most popular games on the list. The games discussed will be: *Sherlock* (Melbourne House 1984); *Sherlock: The Riddle of the Crown Jewels* (Infocom 1987); *The Lost Files of Sherlock Holmes: The Case of the Serrated Scalpel* (Mythos Software 1992); *Sherlock Holmes Consulting Detective: Collection* (ICOM Simulations 1993), a compilation of three CD-ROM games; *The Lost Files of Sherlock Holmes: The Case of the Rose Tattoo* (Mythos Software 1996); and *Sherlock Holmes Collection* (Frogwares Game Development Studio 2010), which includes *The Mystery of the Mummy* (2002), *Sherlock Holmes: Secret of the Silver Earring* (2004), *Sherlock Holmes: The Awakened (Remastered Edition)*(2008), and *Sherlock Holmes: Nemesis* (2007). The following paragraphs provide an overview of the design features of these games, as related to the actions listed in the previous section.

#### **Controlling Holmes**

The first striking feature of the games based on Doyle's stories is that the player is not always the eponymous hero. Some games let the player control both Holmes and Watson, such as *The Lost Files of Sherlock Holmes: The Case of the Rose Tattoo*, or *Sherlock Holmes: The Awakened*. Part of the constraint is that in any of these cases the player can choose which character to control. In *The Awakened*, for example, the character change at times seems arbitrary, just for the sake of the current puzzle that needs to be solved. At a certain point, the player is trying to break into a warehouse as Holmes, has to throw in a rope with a hook through a broken window, then suddenly the controls switch to Watson for no apparent reason. By changing the control locus, it seems that the player is put in the role of a spectator who can see all the actions that are relevant to the plot.

In *Sherlock: The Riddle of the Crown Jewels*, the player only controls John Watson. This makes sense if the adaptation wants to emulate the point of view of Watson, who narrates the original stories. However, equating player with narrator may not be the best way to explore the world, since Watson is more often a witness than an active agent. In *Riddle*, Watson is the detective, while Holmes seems to be in a daze and only wake up when the player finds an interesting clue to explain what it means.

#### Examining objects and use of props

The core game play of these games consists of talking to people, picking up objects, trying to combine them or give them to someone. This corresponds to the core mechanics of a standard adventure game.

Shockingly enough, in the Frogwares games series the equivalent of the verb *examine* is not part of the user interface; the player has to pick up an item first in order to obtain a description. This quirky design choice from appears in very first game in the series, *The* 

*Mystery of the Mummy*, which has two different inventories, one for documents to read, and another for objects.

In a couple of examples, the core game play is more game-like than detective-like: *The Riddle of the Crown Jewels* has the player solving the riddles in the title to figure out which location to go next. In *The Mystery of the Mummy*, the core game play is solving literal lock-and-key puzzles, opening doors to watch the events of the mystery after opening a new door. Neither of these games feature much detective work, just trite adventure game puzzles.

The actions that would define Sherlock Holmes are used sparsely and inconsistently through the game. Of the games selected, only Melbourne House's *Sherlock* uses disguising as an action, requiring the player to find three different disguises. The magnifying glass is not always an inventory item; in *Sherlock: The Riddle of the Crown Jewels*, it is Watson who uses it. In contrast, one of the puzzles in *Sherlock Holmes: The Awakened* requires using the magnifying glass to examine the contents of a bowl. Another puzzle involves measuring footprints with tape, evoking one of Holmes' actions in *A Study in Scarlet*. This type of detective work, however, is relatively rare in these games.

#### Chemistry

Chemical analyses are also featured in three of these games: *The Case of the Serrated Scalpel, The Case of the Rose Tattoo*, and *The Awakened*, in which the apartment in 221B Baker Street features a lab. Every one of the chemistry puzzles are quite frustrating, because the games force the player to use trial and error without giving clues or proper feedback about what may be correct. The games fail to provide cues to know what to do—players cannot be expected to be experts in chemistry, so the game should prepare the player with sufficient knowledge to know what to do. The clearest example of this occurs in *The Awakened*: early on, the player acquires a book about different types of fish. One of the pieces of evidence found later is a fish scale. The information to identify the scale is available to the player, but that is not really the puzzle. The player has to put the evidence in the microscope and pull one single scale, so Sherlock (not the player) identifies the fish in question is a perch if the book is in the inventory.

The recurring pattern, whether one controls Holmes or Watson, is the following: the player explores the space, talks to people, picks up things; then when the player finds the right items to interact with, there is a reward in the form of more dialogue or a cut-scene providing the solution to the mystery. The player watches Holmes explain why the action is important; the detective has the insights while the player experiments (sometimes blindly), getting the exegesis of events as Watson would. Rather than letting the player be as clever as Holmes, the supposed fun is watching him in action, just as in the short stories and novellas, the films, or the radio dramas, rather than performing as the character.

#### No smoking or drugs.

Sherlock Holmes sports a pipe in several of the covers of these games, and yet smoking is not a possible action in any of them. In *Riddle of the Crown Jewels*, the pipe is used to kindle a newspaper but nobody smokes. If smoking is out, heroin and its seven percent solution is not even mentioned. This is probably due to the usual bias towards the depiction of drugs in games—references to drug and tobacco usually make the games less appropriate for children and even teens; a game where the player literally injects cocaine as a core mechanic would very likely get a Mature rating in the US or 16+ in Europe. It seems that digital media have made Holmes clean up his act.

#### Sherlock Holmes Consulting Detective: A Special Case

A case apart is the CD-ROM game series *Sherlock Holmes Consulting Detective* (1991), an adaptation of the 1981 tabletop game of the same title. The original game provides the player with a series of case files, a map of Victorian London, a directory, and a set of fictional copies of The Times. The videogame version digitizes all these items to provide the player with the necessary information to solve each case; the case files become a series of videos enacting the events narrated in the paper documents. There's a video introduction to each case, normally involving Watson and Holmes discussing news from the paper, or a client visiting them at 221B Baker Street. After that, the game displays a screen where the player can access all the information available in the tabletop game—from the current issue of *The Times*, which provides more background information, to videos of Holmes and Watson interrogating witnesses and consulting experts.

This game is a special case because it is designed for the player to explore the information; the events of the investigation unfold as the player explores the space, examines the resources and interrogates witnesses. The player is encouraged to perform as a detective because the original paper game consisted of a series of props, which already cued the player to do detective work, focusing on the behaviors of making the best of the available information resources. However, the game does not quite let the player become Holmes, turning what is closer to a role-playing game into an interactive movie of the type so sadly typical of the 90s. The game manual even tells the player that she is one of Baker Street Irregulars and not Holmes, and that she'll be going through the notes of his past cases. The player follows his steps, but does not get the deer hat.

The player navigates the information to gather clues; once she thinks she knows what happened, she goes to court to make her case and present the evidence. The court scene is a multiple-choice questionnaire, and after the player selects the answers, Holmes talks for the player. The goal of the digital version of *Sherlock Holmes Consulting Detective* is to let the player become a detective apprentice. The player cannot select the questions to ask witnesses, but just watches videos and reads newspapers and notes.

## **Design Solutions**

In the Sherlock Holmes games examined, the adaptation is less procedural (i.e. figuring out the clues and solving the case) and more spatial (the player has to follow the cues in the space to go where the detective would). The set of verbs from the stories hardly overlaps with the verbs found in the digital games; the actions that define Holmes as a character are occasional puzzles rather than core mechanics. More often than not, the problem is that many of them are middle-of-the-road adventure games with confusing interfaces, hunt-the-pixel challenges, and missing information. There are often hints of brilliance and good intentions, but these are often obscured by clumsy design and implementation. There is a great Sherlock Holmes adventure game waiting to be made.

Holmes is an attractive character because he solves problems and riddles; achieving the moment of insight when the mystery is solved is pleasurable (Danesi 2002). By being like Sherlock Holmes, the player would also be clever and insightful.

This section proposes different strategies to design a game that takes the spirit of Doyle's stories and transforms it into game mechanics. The suggestions may be applications of

design strategies from other games, to prove that there are design solutions and it is not a technological issue.

The design solutions focus on mystery-solving mechanics. There is nothing preventing us from making "Sherlock Holmes: The Fighting Game" or "Watson's Trusty Revolver," since their fighting techniques are also behaviors that define them as characters. But there are plenty of fighting and shooting games already and fighting is not their most distinguishing trait, while detective work involving sophisticated storytelling is still a design challenge.

#### Examining and interpreting evidence

The main challenge derives from detective games being story-driven: the facts have to be communicated as a story, and the information must be delivered in the form of texts, sound, detailed images. Many of Holmes' cases start with a narrative: clients arrive and explain their plight, maybe bringing some evidence; Holmes and Watson interview a few potential witnesses, examine the evidence. Holmes usually figures out what is going on, and acts accordingly in order to prevent the final mischief—that's when Holmes and Watson usually become men of action. Although the sequence of events is reproducible – the ICOM Simulations games follow that pattern – the mechanics focus on stock adventure game puzzles rather than detective work.

Detective work involves reconstructing the events of a crime or wrongdoing. The problem is that digital games do not have a wide range of mechanics that allow players to tell their story. Tabletop role-playing games, for example, can use storytelling as a mechanic because the players can produce and evaluate their own stories. The mechanics to solve a case have to be based on *story-building*: collecting the pieces and then assembling them as the story of the game. The tabletop and digital versions of *Sherlock Holmes Consulting Detective* use questions as a way to invite players to come up with their evidence in a structured manner, in order to facilitate the evaluation of the accuracy of their answers. Other non-Sherlock Holmes digital games, such as *Hotel Dusk: Room 215* (CING 2007) or *Blue Toad Murder Files: The Mysteries of Little Riddle* (Relentless Software 2012), also use questionnaires as a way to check whether the player got the story right and has been paying attention. Although it is not a very elegant design solution, multiple questions characterize the player as a storyteller who has to construct a specific story, which is the correct sequence of events.

The risk of this approach is that it may not be very game-like. Players could get a questionnaire after reading part of a book, and then see if they have correctly solved the case. Creating a mystery like that can be more of an exercise in storytelling than actual game design. Digital games do have the affordances to create environments that tell a story, which the player can interpret selectively to reconstruct the story. So how can we address this issue with game design?

The design technique here proposed is part of a set of strategies for environmental storytelling in games, called *indexical storytelling* (Fernández Vara 2011). Indexical storytelling is the use of indices (indications and traces) to tell a story; an *index* is a sign that has a physical relation to what its signified (Peirce 1998). Footprints, fingerprints, bloodstains are all indices, which when interpreted can help reconstruct a series of events—that is why detectives look for them. One of the first things a detective does is to read an environment looking for evidence. Holmes could tell where the murder suspect of *A Study in Scarlet* had walked, what shoes he was wearing and how tall he was based

on his footprints. The marks on the sleeve of the client in "A Case of Identity" informed Holmes that she was a typist. The different ways to interpret traces in the environment can give way to a basic design palette that would encompass many of the techniques that Holmes used to solve his cases.

The use of forensic techniques to solve a case has been used in other detective-like games, such as *Phoenix Wright: Ace Attorney* (Capcom 2005). In the last case of the game, the player uses aluminum powder on a locker, then blows on the area to reveal a fingerprint, and then find whose print it matches. The mechanics in this case are all physical, using the Nintendo DS touch screen to apply the powder and physically blowing on the microphone to reveal the fingerprints. The game also used the touch-screen interface to examine objects closely, rotating them to find the telltale traces. Gestural interfaces encourage players to embody the actions in the space, although most times the gesture is more a gimmick than a meaningful action. In the context of a Sherlock Holmes game, using gestural interfaces to locate and identify could help embody Holmes' forensic work as a set of physical actions.

*Phoenix Wright* also has specific mechanics for story-building, where the player provides evidence to prove or disprove the statement of a witness. It is a more elaborate way of reconstructing the case than the multiple-choice questionnaires at the end of *Sherlock Holmes Consulting Detective*. Although the mechanics do not allow the player to come up with their own story, they help players to solve the case by correcting the testimony until the true sequence of events is reconstructed.

#### Performing as an expert

Another design challenge is how to fill the gap between the player's knowledge and Holmes'. Our friend Sherlock is an expert on certain topics, such as tobacco ash or different types of soil; his keen eye also allows him to observe the tiniest detail and obtain key evidence. Holmes has a superior intellect, so the game design has to scaffold the player to be as shrewd as he is. Expert knowledge is one of his traits, and one of the reasons why performing as him is engaging and even empowering. In the games examined above, the knowledge gap was avoided by having Holmes solve the cases for the player, providing the expertise in cut-scenes or descriptions. How can we do that in game mechanics?

Adventure games do this all the time—they teach the player how the world works as she explores it, and provide the mechanics that will help the player advance, giving adequate information and feedback to become the "expert" in the fictional world. These common design strategies could have been used, for example, to turn the fish scale puzzle from *The Awakened* into a puzzle using knowledge learned in the game. The only missing step was letting players make the connection between what was on the microscope and the information in the book, using a basic match-making mechanic. The chemical analyses described above could also provide more scaffolding to let the player learn what to look for—from books describing the process as an instruction set, to letting the player experiment and get things wrong but providing clear feedback on what the mistake was. The problem with the games analyzed is that the puzzle consists of getting the sequence of actions right, not trying something and failing but obtaining new information, or learning how to carry out the experiment. After all, experimentation is part of the scientific method, which is Holmes' modus operandi.

## Modeling insight thinking

Gathering information from documents and talking to people is also one of the main activities that Holmes carries out as a master of information resources. The digital games based on Sherlock Holmes usually dump the information on the player, but there is no filter or way to understand/digest it as part of the interaction.

The mechanics of information gathering need to be quite sophisticated to demonstrate how Holmes connects ideas—it is not a matter of overwhelming the player with information, but providing the right verbs to manage it. For example, *Sherlock Holmes Consulting Detective* revolved around exploring the information, but did not provide enough scaffolding to reflect Holmes' expertise other than a digital notebook. A game like *Gabriel Knight: Sins of the Fathers* (Sierra On-Line 1994) presents a dialogue system designed to gather information from conversations. Based on a dialogue menu typical of many point-and-click adventure games, the dialogue screen presents a series of stock topics (who the person is and what they know about New Orleans, where the game takes place), as well as topics that relate to that specific witness. As the player requests information, new topics open up to ask witnesses. The expanding options reflect how knowledge grows during exploration; the transcript of all the conversations is also stored to the player can review them. This dialogue system allows to learn about items, and then ask about them to gather new information.

Although the Frogwares games have a separate inventory for documents and notes, the idea of organizing information and relating it to objects is missing from the mechanics. These would allow players to reconstruct the story, finding a representation to retell the events of the crime. Turning the revelation of information into gameplay has been done before—*Ace Attorney: Miles Edgeworth Investigations* (Capcom 2009) is a game that models insight, in which one of the mechanics is connecting two events or pieces of evidence to come up with a new piece of information. Incidentally, this is how insight thinking works according to Sternberg (1985)—we relate ideas in order to give way to novel ones.

None of the games analyzed model how the mind of Holmes' may work. One way to do this may be having a mind map, where the player arranges concepts and connects them to obtain new ideas. The experimental game *Rosemary* (Singapore-MIT GAMBIT Game Lab 2009) allows players to help the main character remember events and people by connecting related memories in a photo album. Two correctly related photos result in a new memory that opens up new locations or dialogue options. Holmes' mind could also be represented as a map where the player connects information to reach insight and solve the case. By finding the relationships between apparently disconnected information, the game play would focus on what makes Holmes different from other people: how his mind works.

#### Master of Disguise

Disguising is another Holmesian tactic that is underused in the adventure games, as we saw above, but it is not unheard of in videogames. *Metal Gear Solid 3: Snake Eater* (Konami Computer Entertainment 2004) uses disguises as one of the mechanics for Snake, the special operations soldier and spy, to infiltrate into enemy territory. The disguises range from a crocodile head – for wading in the river – to a Soviet scientist lab coat to sneak into enemy facilities, as well as using an enemy uniform and face mask to pretend to be somebody else. The use of disguises and make up to access certain

locations or hear some information is a relatively easy mechanic to implement, and thus would be an easy behavioral scripts to could allow the player to perform as Holmes.

#### Smoking and drug use

Another aspect that has not really been implemented, perhaps because of its potentially controversial nature, is the use of smoking and drugs. Holmes' pipe is a prop but it is not used to change his mood, for example; cocaine is nowhere in sight. For the sake of the argument, let us consider what the use of cocaine may mean in the context of a Sherlock Holmes game. As we saw, Holmes uses cocaine to "sharpen his mind," so in a way cocaine may work as a booster. The scaffolding described above would make the game easier—the game could give hints about the relationships between ideas, for example; if the player is examining the environment, the relevant clues may be highlighted as a way to simulate Holmes' superior powers of perception. Of course, there could be a time or dose limit—the seven per cent solution of cocaine, if abused, could lead to the demise of our hero, so it should be used wisely.

#### Conclusion

Through the examination of Sherlock Holmes' original stories and digital games, we have observed there is an apparent disconnect between what makes Holmes an interesting player character and what has been implemented in digital games. The process of adaptation in digital games is not reproducing a series of events, but creating a set of actions of behaviors that parallel those in the original work. In the case of the videogames inspired on Arthur Conan Doyle's detective stories, they reproduce the world but do not translate the challenges of investigative work. The mechanics of detective work are not part of the gameplay, even though other games have featured them already.

Through speculative design, this paper invites to evaluate story-driven games based on pre-existing works in terms of performance. The proposed evaluation method for game adaptation is to examine the actions that define the character(s) in the original work, and then check if they coincide with the game mechanics of the game. Just because the game tells us we are a detective, it does not mean that we are one—if all the player actions involve opening doors, we are a locksmith and not Sherlock Holmes.

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