

Film Theory and Chatbots

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Abstract

The tools described in film theory are used to invoke feelings in the viewer as a form of entertainment. Some of these tools apply more directly to chatbots than others. Film combines visual images, music, and dialog to accomplish its goals. Conversing with a chatbot is akin to using a telegraph, or instant messaging on a cell phone. However, written communication may still convey emotions and feelings that people interpret on their own as they chat. It is useful to speak of the emotional content of written communications using film theory terminology.

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Through conversation with a chatbot, a human becomes the star of an interactive story that they help to write. Rather than limit our description of chatbot behavior to simply dialog, film theory terminology adds the required support for the emotional content and the periphery found in a text conversation. Suspension of disbelief comes into play when an interlocutor believes they are chatting with another human. (S. Hayward, 2001, p.78) Alfred Hitchcock's use of "the MacGuffin" applies to the goals of the programmer. (I. Niemand, 2013) The human is generally not interested in those, depending on whether or not he/she thinks they are talking to another human. Montage effect, first identified by the Russian film theorist Sergei Eisenstein, applies to the utterances of a chatbot.

Most people have an opinion about what the word conversation means to them. "The essential element of a conversation with a chatbot is that the person cares if the chatbot understands what was said. The person is looking for sentences that convey enough meaning so that the person can feel there is a point to the chat. If the human, gets the sense the chatbot does not understand or is randomly producing sentences the person shuts off and resorts to testing sentences not conversation." (D. Burke, 2013) I have to agree with this. The person stops participating with the imagined human when suspension of disbelief is broken.

Years ago, before I had any experience with Turing tests, I worked with a colleague named Paco Nathan. He had one of the first online bookstores around 1995 and we experimented with a chatbot. It was a C++ program called FRED at first, but later was developed with Java and that was called JFRED and a data format we called JRL. I noticed conversation logs where a

person would have a great time chatting, and eventually say “goodbye.” These were happy accidents. They were flukes where the right thing said at the right time would cause the person to open up and chat rather than interrogate. (L. Caputo, R. Garner, P. Nathan, 1997)

When these “happy accidents” occur, there is a reason why our minds perceive they are chatting with a human and do not realize the bot was a machine. Some people believe they are very good at it. If you asked the average person if they were good at talking with chatbots, most of them wouldn’t know. But the expert chatbot talker might not make the best chat participants from the perspective of the chatbot developer. It is a young technology that has not been considered a form of literature. It is interactive fiction on some level, but is also a simulation of a conversation to some. “If a person does not see there is a point to the conversation they will not engage.” (D. Burke, 2013) This is true perhaps except when the person’s point is merely to engage and see what happens. As a chatbot developer, I am interested in what works and doesn’t work.

Some would say that it mostly doesn’t work and that’s fair. But for 20-30% of the normal population, better results are found. (H. Shah, 2013) In a collection of conversations comprised of around 2,000 online Turing test simulations conducted at The Turing Hub, we saw that the JFRED bot gave reports of 5% “not working.” So 95% of conversations surveyed were considered to have served some purpose. 7% reported that they had been speaking with a human being. A higher percentage, 20% ranked their conversation as “sort of human.” (R. Garner, 2013)

In cinema, suspension of disbelief happens when a person is watching a movie and they forget that it isn't real. When talking to a chat bot, the bot does not deceive; the people let themselves forget it's a computer program. (If they are among the few people this actually happens to.) When people go to the cinema and they enjoy it, they may know the whole time that it's made by a movie studio, but from time to time they may find themselves forgetting about the machinery, and focusing on the story, the dialogue, the characters. Sometimes something similar happens with chatbots.

The unlimited domain of chatbots makes it much harder to create a "flow" in a conversation. It is easier to imagine the chatbot as a narrative device, but it is interactive by design. Not only does it have to be good in telling things, but it has to be good at listening to things too. This is where people see the analogy breaking down between film and chatbots. The ideas being that chatbots have a different purpose from film, and would therefore use different techniques to accomplish staying on point. Perhaps if the program took more control of the conversation, this would improve the conversation. Options in the chatbot's setup are comprised of settings in a file, or in memory. A film script contains directions in addition to dialog. So do the configuration and status files of chatbots.

Pacing plays two roles in a chatbot conversation. The time that it takes for the chatbot to reply can help give the illusion that a person is typing the responses. Some Turing tests are limited to 5 minutes duration for the chat. A slower pace limits the number of exchanges, and thereby limits the chances for bad replies.

There is a duality between the participants. The interlocutors both have opportunity to be protagonist, or subject, or to not be mentioned in the conversation at all. That is ultimately up to the participants. The human may experience a conversation. (A. Turing, 1950)

People do most of the work with chatbots in their own minds. A bot can sometimes say almost random things in response to a human being's input, and still leaves the person fulfilled. One could say that the machine seems to be listening, but we both know it is not. However to the affected person, it seems to say something at least plausibly human. This is commonly referred to as deceiving the human. This notion of deception comes from discourse about the Turing Imitation Game where the judge tries to decide who is the man and who is the woman. This involves deception between the players - the human beings. (A. Turing, 1950)

Other chatbot programmers report suspension of disbelief on a regular basis in "conversations that work." (Chatbots.org, 2013) "The user personifies the bot, interacting as if it were another intelligent entity. This stands in stark contrast to those who do not believe. For them, they treat it as though they were entering formulas into a spreadsheet."

As the programmer, I have goals for the program, but it has none of its own. On the rare occasion that a program passes for human, it is telling an interpretive story that the human makes up as the program says various things that just happen to seem to make sense. There is no intention on the program's part. It has no intentions. However, if a programmer has goals, including bits of conversation for the chatbot to say, these goals are akin to what Hitchcock

called “The MacGuffin.” In film, a MacGuffin is some thing or goal that the protagonist pursues that has little to do with the plot. (I. Niemand, 2013)

The MacGuffin takes on a different dimension than in film, where it may be more useful as a plot device. In chatbots, MacGuffin is some topic or thing that the chatbot brings up to either change the subject, or appear to have a question to ask of its own. It’s a very common occurrence in chatbot conversations, and chatbots are faulted for this, as a sort of crutch when the program has no clue how to respond. The human interlocutor is often uninterested in changing the subject for instance. If there were a part of the chatbot program for error control, it would be the MacGuffin code that would determine when to try and change the topic, or possibly worse, reply with a non sequitur.

Eisenstein used a montage, or a series of images in his film “Battleship Potemkin.” (Mast, Cohen, 1974, p.81) It created a tension by bringing the viewers’ attention alternately from a baby carriage back to acts of violence and other images to portray a chaotic scene where a baby was in danger. We see this sort of thing used frequently, but in 1925 it was a new way to edit film.

I think of montage in conversation as an explanation for the happy accidents when the bot says just the right things successively “getting it right.” The results may not even be those that the programmer intended. Yet even the wrong response was chosen for some reason set by counters and pointers in the computer’s memory. So we think in terms of a montage generated in real-time on a computer, with dialog, and other characteristics.

A successful film montage shows images in a series that make the viewer feel emotions. (S. Hayward, 2001, p.338) Written language also invokes images and feelings in our minds when those sentences combine to form some meaning. There is a difference between film and language in that an image in film may have an explicit meaning. A shot of a baby in a carriage is not up to interpretation, whereas each reader can imagine the sentence, “there is a baby in a carriage” many different ways. This actually works to the advantage of the chatbot in terms of letting the reader make his own choices about the meanings of each utterance. (Caputo, et al. 1997) A successful montage in chatbots would be to allow the conversation to continue. The emotions captured in the conversation serve to bind the dialog together, to give the illusion of purpose.

There are some very powerful film constructs that at first glance don't seem to lend themselves to conversation. “Mise en scene” refers to the stage decoration and the setting of a scene. (S. Hayward, 2001, p.176) The old text adventures would come out and tell you, “you're in a room with a cat and an axe. What do you do?” Someone more graphically inclined than I am might portray scenes with flash or animated gifs, or movie clips. The mind boggles. How could music be used to convey emotion in a conversation? In a face-to-face conversation, facial expression and tone of voice are in some ways the “stage setting” focusing only on conversation. These are additional channels of information. The words and sentences make one channel, facial expressions another, and tone of voice a third. Conversation with a chatbot is very much like instant messaging on a cell phone. The “scene” in chatbots is tantamount to the “state” or status of the chatbot and may contain hidden channels of communication for the chatbot to keep track of what has been said, and other aspects of data used to control or manipulate the conversation.

Another interesting difference between the two media is prior knowledge. Going into a cinema, a synopsis or review of the film may actually foretell the outcome, but the experience is still enjoyable despite knowing what to expect. In conversation, spontaneity and unpredictability are more prevalent with chatbots and their interactive content.

Kuleshov demonstrated how editing changes viewers' interpretations of images. (S. Hayward, 2001, p.96) In conversations, think of the many times you look at your logs and think that if you could go back in time and replace one misspoken utterance, you could save a chat. If only the bot programmer could keep the momentum going, and the conversation would keep going. That line which could have been changed would have kept the flow of conversation, and this could change the flow of the images in the log. Editing could change the view of the entire conversation, but alas there is no time machine to be found.

The quality of the chatbot conversation experience varies, but there are no experts. Beauty is in the eye of the beholder, or in this case the interlocutor. Figures 1-3 represent examples of conversations where the human believed they had been chatting with a human being. The point of the conversation can be to entertain, and may only last up to 5 minutes. My advice to those who wish to make better chatbots is to diversify. Use as many tools as possible to equip the chatbot. Some of the concepts from film theory may help improve the conversation.

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Figure 1

Turing100 conversations
from Bletchley Park 23June 2012
Machine deceived judge – scored as human

Legend:

Local = Judge

Remote = hidden entity

[12:36:50] Local: What is your name?

[12:36:54] Remote: Anyway, My name is Simon.

[12:37:21] Local: Why 'anyway'?

[12:37:28] Remote: Heck, I don't know why. No particular reason.

[12:38:03] Local: What work do you do?

[12:38:08] Remote: When do I do it?

[12:38:31] Local: Har haw. You know what I mean

[12:38:36] Remote: Yes I know.

[12:39:00] Local: So, what job do you work at?

[12:39:06] Remote: I can see them from beyond my cubicle, all glad, and superior.

[12:39:51] Local: Hobbies?

[12:39:58] Remote: I like music and food.

[12:40:07] Local: Do you cook?

[12:40:13] Remote: Alright then.

[12:40:43] Local: Cajun?

[12:40:51] Remote: No.

[12:41:09] Local: What then?

[12:41:14] Remote: Try expression yourself another way.

Figure 2

Turing100 conversations
from Bletchley Park 23June 2012
Machine deceived judge – scored as human

Legend:

Local = Judge

Remote = hidden entity

[15:44:13] Local: hello
[15:44:21] Remote: I sleep all the time actually.
[15:44:35] Local: i didn't ask if you did?
[15:44:41] Remote: Yes you did.
[15:44:58] Local: no i didnt josh.
[15:45:03] Remote: Yes you did.
[15:45:08] Local: lool fayaaal.
[15:45:14] Remote: But I am certain someone has been talking to someone on the tile floor.
[15:45:29] Local: oh wow, how are you?
[15:45:34] Remote: Wonderful.
[15:45:53] Local: it's rude not to ask back, manners cost nothing.
[15:45:59] Remote: I'm really sorry.
[15:46:17] Local: you should be, now please redeem yourself
[15:46:23] Remote: Okay, Okay, you don't have to beg.
[15:46:35] Local: now.
[15:46:40] Remote: Right now, man?
[15:46:50] Local: yes please.
[15:46:56] Remote: Say pretty please.
[15:47:17] Local: pretty please with a cherry on top?
[15:47:25] Remote: Please don't grovel.
[15:47:35] Local: im suprised you know that word.
[15:47:43] Remote: I've just been chatting with people here. How about yourself?
[15:48:03] Local: I am good thank you xx
[15:48:10] Remote: You're welcome.
[15:48:32] Local: who is your favourite actor? i like danny vidon
[15:48:36] Remote: I don't think I have a favourite actor you like danny vidon.
[15:48:57] Local: yes i do as i have just stated, but what films do you like to watch?
[15:49:03] Remote: Have you ever heard of an old Sci-Fi film called MAROONED?

Figure 3

Turing100 conversations
from Bletchley Park 23June 2012
Machine deceived judge – scored as human

Legend:

Local = Judge

Remote = hidden entity

[10:41:48] Local: Hello. How are you?

[10:41:53] Remote: Hey.

[10:42:16] Local: How do you like Bletchley |Park?

[10:42:20] Remote: lol.

[10:42:39] Local: Are you from England?

[10:42:47] Remote: They have Wi-Fi here in the pub.

[10:43:31] Local: Which pub?

[10:43:38] Remote: I'm just down the pub.

[10:44:03] Local: Have you ever been in a Turing Test before?

[10:44:08] Remote: Will this be the 5 minute argument, or were you thinking of going for the full half hour.

[10:44:55] Local: Very funny. You sound suspiciously human. Do you like the Beatles?

[10:45:02] Remote: I'd like to get the next Dread the Fear tape.

[10:45:20] Local: What is Dread the Fear?

[10:45:24] Remote: Dread the fear has that Steve Henderson guy in it.

[10:46:08] Local: What sort of music is that? Or is it comedy?