Chatting as interface in gaming — case example: *Bury me, my love*

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In the 2010s, several games, interactive fictions and mobile applications have been published which utilise chatting as interface. I briefly present a selection of such games and applications, and finally, analyse *Bury Me, My Love (BMML)* as a specific case example. BMML was chosen because the chatting interface creates a procedural representation of the experience of a husband accompanying the path of his beloved wife on a perilous journey out of Syria. My approach is autoethnographic. I claim that BMML enriches player experience through the chatting interface, because the act of chatting with a loved one is reproduced within the game quite accurately by resorting to multiple aspects of chatting behaviour. These representations of chatting behaviour are easy to identify with as they echo our own behaviour and experience of chatting with our loved ones. This identification in turn allows us to build deeper empathy with the characters in the story. Empathy with the characters allows for deeper engagement with the story and ultimately, with the games’ bitter message about the difficulty of entering fortress Europe. Future work might scrutinise the impact of the chatting interface on player experience in this particular game or others using a more diversified research approach.

Keywords

Chatting Interface;
Games;
Interactive Fiction;
Cybertext.

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1. **INTRODUCTION**

Why is chatting interesting as an interface for mobile games? Perhaps because chatting is an integral part of our daily lives in the 2010s. Chatting has been around since the internet emerged, and was present through SMS exchanges, yet mobile messaging apps that send data through the internet, but which identify us through our mobile numbers, have made chatting a pervasive part of our everyday media usage.

In recent years, several games have emerged that utilise chatting as an interface. Some are better categorised as interactive fiction, while others sit more in the domain of the videogame. Some are strictly branching narratives, yet some incorporate variables which affect possible outcomes and system behaviour. The original chatting interface can be attributed to *Eliza* (1966). Some examples of games and apps which use chatting as an interface are *Komrad* (2016), *Event[0]* (2016), *Avery* (2018), *Bury Me, My Love* (2017), and Lifeline (2015). In the past two years, several mobile applications have been created to allow people to read linear stories which unfold as chat messages, for example *Lure* (2017), *Yarn* (2017), *Hooked* (2017), *Tap* (2017) among others. And importantly, *urnd* (2018) which combines text elements with specifically produced multimedia content such as videos, images and audio messages enacted by professional actors. These aforementioned mobile applications are sometimes referred to as *chat stories*.

Historically, the most prominent example of such a conversation exchange with a computer program is Weizenbaum’s 1966 Eliza. But what makes chatting interfaces intriguing in the context of digital games and more specifically, in mobile games? How does Aarseth’s classic theory of the cybertext and in particular his concepts of user functions shed light on the differences between linear and non-linear, static and dynamic digital narratives? We will briefly survey the domain of digital games and apps which have emerged in recent years which utilise chatting as interface. Finally, we look at the specific case example of Bury Me, My Love, to understand how the chatting interface contributes to immersion into the narrative and consequently, into a deeper connection with the topic of the story and ultimately, with the real-life events on which the story is based.

2. **CHATTING AS INTERFACE IN DIGITAL GAMES AND NARRATIVE**

Along the history of digital media, Joseph Weizenbaum’s *Eliza* continues to be a work of reference in the domain of interactive systems based on chatting. Weizenbaum created *Eliza* in 1966, attempting to proceduralise a rogerian psychotherapist. Weizenbaum was successful enough that some users were momentarily able to
suspend belief, and truly immerse themselves into dialogue with a seemingly human counterpart. This so-called Eliza-effect was mainly achieved due to the fact that although users could communicate with Eliza in natural language, Eliza simply picked up on a limited set of keywords. Eliza dealt with user input in a limited manner, mostly placing questions to the user. Thus, Eliza’s scope of knowledge was extremely limited. And within this limited scope, Eliza was quite fluently able to carry on a conversation (Weizenbaum 1966).

More recently, in 2015, an app called Lifeline was published, which allowed for users to follow a branching narrative with a chat interface. The user cannot chat like with Eliza, yet the interface looks like a chat. The narratives unfold in real time and the outcome is influenced by user choices. In 2017, several apps were published (Hooked, Tap, Yarn, among others), which allow users to tap through narratives which unfold through a chatting interface. The user cannot make any choices and their role is left to passive tapping to allow the next block of text to appear on the screen.

However, the apps are meant to be read on a smartphone and mimic our messaging apps in terms of interface. What is interesting about these apps is the manner in which they appropriate the chatting culture of the 2010s and utilise this context to nest the narratives in. This model has proven to be a success, with teenagers more likely to finish reading a 1,000-word story when presented as a chat story as opposed to a single block of text. Hooked creator Prema Gupta recounts the process of developing their chat story app:

Then we had an off-the-wall idea to test a story written as a text message conversation between the characters. It was 1,000 words, or a five-minute read, the same length as everything else we had tested thus far. The first chat story we tested had staggering results. Almost every teenager who started reading our chat story finished it in one session. (Gupta 2017)

In late 2018 an app called unrd was published which sits into the canon of the previous chat story apps yet makes a large jump in terms of the budget of the production. Unrd includes original multimedia content such as images, audio messages and even video featuring professional actors. Stories in Unrd unfold in real time only and the narratives are linear. Users do not tap to view further messages or content, but rather the content appears on their phone according to the scheduled time. These applications are continuously evolving, with Hooked publishing content, which unfolds over days, for Snapchat in late 2018.
In the video game *Komrad*, the player chooses from pre-existing choices or phrases, which in turn influence the outcome of the game. Thus, the game is more like a branching narrative, with eight possible endings. *Komrad* was developed by Brad Becker, a former chief design officer working on IBM’s Watson. Watson is a kind of conversational agent which understands natural language (High 2012). In *Komrad*, the player needs to converse with an AI in order to hack it and find out information. According to Becker, the game uses a mix of code and pre-scripted dialogue to simulate real speech (Webster 2016). The narrative thus plays out in dialogue with the AI according to a pre-defined path. Importantly, the player cannot use natural language to interact with the AI, but instead must choose responses from pre-sets. Thus, the interaction unfolds through clicking. As such, *Komrad* follows rather the aesthetics of click-through adventure games. *Komrad* is meant to be used on the mobile phone, hence making reference to chatting and messaging behaviour on mobile phones.

In *Event[0]* according to its creator Sergey Mohov, the player “will also influence [the AIs] attitude, mood, and emotions and experience the consequences of that throughout the game.” (Webster 2016). Furthermore, “a core design principle was to be open from the outset of the game that the player was dealing with an AI” (Cross 2016). This AI is called *Kaizen*. *Kaizen* is responsive to the players input: if the player treats *Kaizen* kindly, *Kaizen* will treat the player kindly. Alternately, if the player is mean and mistrusting with *Kaizen*, *Kaizen* might try to mislead or even kill the player. Thus, *Kaizen* is truly responsive, and the video game takes on cybertextual qualities. These types of qualities for characters in video games were envisioned by videogame theorist Eskelinen in the early 2000s: competing conversation programs may be allowed to affect both developments and outcomes of narratives, including the behavioural patterns of certain characters and narrators ... In that way the attitudes and speech acts of our real world are given their chances to affect the fictive world (Eskelinen 2001, 60).

*Avery* is an artificial intelligence in love, who has forgotten things about herself. The player must interact with *Avery* and thus help *Avery* uncover the mysterious events of the past. A key starting point in *Avery* is transparency, since we are told that we are speaking with an artificial intelligence agent. Thus, *Avery*’s character is also clearly defined from the outset. Interestingly, and unlike in the other applications and games available at the time of writing this, interaction with *Avery* happens using natural language. This has its benefits, as we feel freer to input whatever we want, sustaining...
somewhat the illusion that we might be participating in a relatively unconstrained narrative or domain of play. Naturally, interaction breaks down quite often, as Avery is simply unable to process complex input. For example, Avery asks for our name, and cannot make sense of the result unless the name is capitalised. Here, the Eliza-effect breaks down to the detriment of player experience and immersion.

*Bury Me, My Love* (2017) (hereafter referred to as BMML) sits between the categories of interactive fiction/branching narrative and video games. BMML is a game about a Syrian refugee trying to make their way to Europe. The narrative unfolds through a chat between husband Madj (player character) and wife Nour, who leaves Syria and communicates with Madj on her mobile phone. The game is based on the experiences of Dana, a Syrian refugee, as well as on other true stories. The game is a reality-inspired game or newsgame.

BMML unfolds in real time, although the player can choose a fast play-through mode as well. BMML is above all a branching narrative and it has 19 different endings available. Importantly, the branching of the narrative is not only decided based on actions which the character chooses, but on four distinct variables. The variables are the main character, Nour’s, relationship status with her husband (the player character) Majd, Nour’s inventory, Nour’s money, and Nour’s morale. The outcomes are also affected by the advice which the player character Majd gives to Nour. Since the branching of the narrative is influenced by both player choices about which actions the character (Nour) should take, as well as on the four variables which take into account player the behaviour and attitudes towards Nour, on a continuous scale BMML would fall somewhat closer to the category of game than branching narrative in comparison to the other examples discussed.

Overall, chatting as interface in gaming and interactive fiction is a relatively recent phenomenon, most likely brought on by the prominence of messaging apps used on mobile phones. The emergence of the interactive fiction apps suggests an evolution in the manner in which we consume narratives inspired by the ongoing Whatsapp and Snapchat era. All in all, the developments of recent year suggest that media which is based on a chatting interface is fertile ground for study.

3. CHATTING INTERFACES AND THE CYBERTEXT

In the domain of digital art, games and narratives, one publication continues to be discussed although it has been published two decades ago: Espen Aarseth’s *Cybertext* (1997). What is interesting about the work is that even though the author did not have any
way of knowing what the future of digital technology would bring, he yet managed to envision how interactive technologies could function and more importantly, why the increasing degrees of interactivity would make such technologies a point of fascination for humans. We will take a look at some of the theories discussed, and then examine how these theories are expressed in practice in the works introduced above and in our case example *Bury Me, My Love*. Espen Aarseth initially wrote his seminal book titled *Cybertext* in 1997, but like most visionary endeavours, one might wait for decades before such visions and musings for the future can even begin to take shape due to technology constraints. Yet in 2018 we see many of Aarseth’s musings becoming reality. Importantly, Aarseth’s starting point for developing *Cybertext* lies in the observation that:

a search for traditional literary values in texts that are neither intended nor structured as literature will only obscure the unique aspects of these texts and transform a formal investigation into an apologetic crusade. (Aarseth 1997, 22)

For example, to analyse *BMML* as literature would undoubtedly leave it appearing rather bleak by comparison to other works of equal length, despite the fact that *BMML* contains 110,000 words, the same number of words as J.K. Rowlings’s *Prisoner of Azkaban* (Corbinais 2018).

The manner in which Aarseth distinguishes static and dynamic texts from each other according to various levels of user function is still highly applicable today and provides an interesting lens for understanding why some media is experienced as more engaging or immersive than other media. Importantly, we try to understand how the inclusion of various user functions could affect the player experience and immersion.

![Fig. 1](image-url)

**Fig. 1**
User Functions and Their Relation to Other Concepts (Aarseth 1997, 64)

In Fig. 1 above we observe the defining characteristics of a cybertext: besides the interpretative and explorative user functions, the user is able to influence the textonic and configurative aspects of the
text. The interpretative user function means that the user interprets the contents of the ordinary text. The explorative user function means that the user explores various branches of the branching narrative or hypertext. In the case of the ordinary text, the text content is static and reading of it progresses in a linear manner. In the case of the hypertext, the text content is still static, however, reading of the text is no longer linear. Aarseth calls texts which allow for non-linear reading ergodic. The configurative and textonic user functions are rather more complicated, implying not only an ergodic (non-linear) reading, but also a dynamic text content. Here, two levels of dynamic content are defined: through “the configurative function, in which scriptons are in part chosen or created by the user” (Aarseth 1997, 62), where the user chooses or inputs content (“scriptons”) which becomes integrated into the reading, or even textonic: “if textons or traversal functions can be (permanently) added to the text, the user function is textonic” (Aarseth 1997, 62). In clarification, Aarseth recounts what he means by textons and scriptons:

It is useful to distinguish between strings as they appear to readers and strings as they exist in the text, since these may not always be the same. For want of better terms, I call the former scriptons and the latter textons ... In addition to textons and scriptons, a text consists of what I call a traversal function - the mechanism by which scriptons are revealed or generated from textons and presented to the user of the text.” (Aarseth 1997, 62)

Scriptons are thus text as it appears to the user, and textons are the text or strings which appear in the code of the digital piece. Moreover, cybertexts are dynamic, and in order to define these dynamics, the cybertext must contain rules for how to process the textons in order to reveal them as scriptons to the users. These rules Aarseth calls traversal functions.

Here Aarseth’s terms scripton and texton are rather misleading given the use of similar terms and language from today’s computer sciences. In computer sciences, we understand a script as a bit of code which gives instructions for processing data in a particular way. Aarseth calls these types of programmed instructions “traversal function — the mechanism by which scriptons are revealed or generated from textons and presented to the user of the text” (Aarseth 1997, 62). In other words, textons are bits of code which traversal functions process to reveal text, or scriptons, to the user. With reference to, for example, javascript as code embedded in html documents, it would make more sense to refer to processes as traversal functions, to code as scriptons, and to vari-
ous items of text which are actually displayed as it is written (prose, sentences etc.) as textons. Nevermind this confusion of terminology, Aarseth’s original categorisation is interesting and ever more relevant in today’s landscape of digital narratives and games.

In particular Aarseth’s categorisation raises the issue of what is a digital, dynamic, ergodic narrative which allows for textonic user function? Do any of the case examples discussed earlier exhibit properties of this sort? Let’s remember that the textonic user function would allow users to in fact tweak the textons permanently — the elements of code which guide the configuration of current and future readings of the cybertext. This would imply that a user could program the behaviour of, for example, characters of a narrative or in fact program the sequence of events which the narrative could take. In fact, none of the examples discussed earlier reach this level of user function. The implementation of textonic user function is not straightforward since it is difficult to design dynamic, digital narratives which allow for such randomness, since an excess of textonic user function may result in excess randomness which in turn may render a narrative rather meaningless.

In the examples addressed earlier, the closest we come to the essence of the cybertext is with Avery, which allows users to input. The chatstory apps allow for users to create their own stories and to share these with others. Avery allows for natural language input, which is then at times displayed back to the user, meaning that Avery allows for a configurative user function, allowing for manipulation of scriptons. Other branching narrative games or fictions, such as BMML, allow also for this configurative user function, albeit by choosing from a list of predefined possibilities. Nevertheless, the chosen possibility becomes part of the reading of the text.

If we read our real-life chatting behaviour with a loved one as cybertextual, we will see that both configurative and textonic user functions are present. Real-life chatting is configurative in the sense that our loved one might ask us to choose where to have lunch, what to bring home for dinner, etc. In answering, we indeed choose or alter the scriptons, and also the course of events. These scriptons become integrated into future chat messages, as our counterpart might refer to the name of the restaurant, we chose a few messages further on. If we simply say “yes, let’s go for lunch” and then proceed for the lunch, our user function might be considered explorative rather than configurative.

Now, if we suggested another course of events entirely, which led to an elaborate plan of food shopping and a picnic in a nearby park, we might be touching upon the textonic user function, in which the
plan (or transversal function), written by our beloved to go out for lunch, was altered to contain subprograms which were not originally conceived by them, altering the structure and contents of the narrative. And of course, real-life chatting shouldn’t and can’t be read as a cybertext, since it is real-life behaviour and not media.

Madj is able to choose from various things to say to Nour (scriptons). Importantly, these scriptons alter Nour’s four variables, which in turn alter the outcome. Thus, the user function is not only explorative. User function is configurative. (User function would be explorative if Nour’s four variables had no influence on possible paths to take.). There is no evidence of textonic user function in BMML, as we are at no point able to input natural language (scriptons), nor input functions (transversal functions) which would reconfigure existing textons into scriptons.

Immersion and engagement with BMML might in part be explained by the fact that BMML allows for configurative user function: we realise that we can influence the outcome both with our attitudes towards Nour as well as what we tell her to do as opposed to just clicking the story through (explorative user function). More importantly, immersion and engagement in BMML might result from the fact that the configurative user function as well as the patterns of chatting behaviour are modelled true to reality when comparing to our real-life chats to our loved ones. We might also ask whether immersion and engagement in chatting-based media might be enhanced if it also allowed for textonic user function, since textonic user function translates into the agency we experience in our real-life chats and interactions with real people.

I will focus my discussion on the analysis of player experience in Bury Me, My Love (BMML). My approach is auto ethnographic and I analyse my own playing experience of chatting in BMML, drawing parallels to my real-world experience of chatting to my loved ones to understand how the two experiences combine to produce immersion and engagement in BMML. In addition to my personal experience of playing the game I refer to interviews with the game designers to elucidate some of the motives behind game design decisions, as well as to accounts by game critics who describe their experience of playing the game. My research question is:

RQ: How does the chatting interface in particular contribute to player experience and immersion?

I argue that the procedural mechanics of chatting in BMML are responsible for a major component of the overall immersion and ensu-
ing engagement and emotional effect which the game produces. *BMML* represents the journey of Nour through her chats with her husband Madj, who stays behind in Syria. Thus, the game serves as a truly procedural representation of the real-world experience which refugees face. Maurin states, “*Bury Me, My Love is designed to mimic the way migrants use messaging apps*” (Maurin 2018c). Importantly, we as the player character Madj experience the hopelessness of not being able to help Nour more than through the messages we send. Nour is far away and all we can do is keep in touch, give advice and maybe google some more information. Thus, we experience first-hand the inability and lack of agency which those who stay behind feel when accompanying from far away the trajectories of their loved ones.

4.1 OBSERVATIONS ABOUT CHATTING IN MY LIFE AND IN BMML

Over the course of a few days, and reflecting on past experiences, I first asked myself, what are the particular characteristics of chatting with my loved one and how do I act out these chats in my everyday life? I then observed the characteristics of chatting behaviour in *BMML*, asking, in what types of situations do Nour and Madj interact, what types of information do they exchange and how does Nour involve Madj in her journey through the messaging application. See these characteristics outlined below in Table 1.

<table>
<thead>
<tr>
<th>CHATTING IN MY LIFE AS:</th>
<th>CHATTING IN BMML AS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>... implies that we are separated momentarily</td>
<td>... keeping in touch with your loved one</td>
</tr>
<tr>
<td>... These chats are private</td>
<td>... social contact when surrounded by strangers</td>
</tr>
<tr>
<td>... Time spent waiting for them to respond...</td>
<td>... waiting for Nour to respond</td>
</tr>
<tr>
<td>... Being worried about them (are they ok?)</td>
<td>... asking for help (googling information)</td>
</tr>
<tr>
<td>... Humor</td>
<td>... asking for a second opinion on what to do</td>
</tr>
<tr>
<td>... Sending icons, smileys, hearts, etc...</td>
<td>... moral support in time of crisis</td>
</tr>
<tr>
<td>... Jokes, inside jokes</td>
<td>... sharing news, sharing events that happen</td>
</tr>
<tr>
<td>... Little fights, big fights</td>
<td>... ultimately, a lifeline through the perilous journey</td>
</tr>
<tr>
<td>... Sending photos</td>
<td></td>
</tr>
<tr>
<td>... moral support</td>
<td></td>
</tr>
<tr>
<td>... updating on events</td>
<td></td>
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</tbody>
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Table 1
Observations related to chatting behaviour in my life and BMML
Humour is expressed in nearly aleatoric situations, where the characters allow a small typo to evolve into a humorous exchange. We follow the humorous exchange as it unfolds in real-time. This is much like what might happen and has happened spontaneously in a chat with my loved ones. Sending photos is an integral aspect of the exchanges between Nour and Madj. *BMML* comes with digitally drawn images that mimic mobile phone shots of events on the street or selfies with icons added to them. For example, Nour takes an image of herself while waiting at the bus stop.

Nour and Madj send each other icons, hearts, smileys, etc. throughout the game. Oftentimes, the player character Madj is given the option to choose from various icons instead of a textual message. Indeed, the three emoticons available (e.g. shocked, sad or overwhelmed face) might all denote more or less the same thing and have no great influence on the course of the game, yet we leave the exchange with a sensation that we have been allowed to make a minute choice about which colour of emotion we feel at that moment. Furthermore, reacting to a message with only an emoticon is rather a common pattern of behaviour in our real-life chats.

The couple reminisces about the past and shared memories. As Nour passes through a city which has been bombed, she shares a photo of the bombed city with Madj, recalling the time that they visited that place together. Their exchange unfolds in shared disbelief of how much damage the war has done to familiar places. I am reminded of my own trips with my loved ones, imagining what it would be like if the scenery of our holiday photos was all of a sudden translated into a warzone. Also, the chat between Nour and Madj is strictly private. For example, Nour sends Madj a photo of herself tucking cash into her bra, an image which she would surely not share in a group chat.

Madj spends time waiting for Nour to reply. If we play in the pseudo real-time mode, we need to wait minutes, hours and sometimes days until we hear back from Nour again. Game creator Florent Maurin states in interview with Priestman: “one of the techniques used to do this is ‘pseudo real-time’ texting, borrowed from the 2015 game *Lifeline*... [if] you tell Nour to wait at a closed border for two hours to see if it opens, you won’t hear from her again for two real-world hours” (Priestman 2017). Furthermore, in interview with Robertson, Maurin states that this “waiting isn’t something you can do in a book or movie” (Robertson 2017).

As Madj, we worry about Nour. Having to wait for replies puts a sense of anticipation in the player. Indeed, Madj is often waiting for Nour to come back online again, knowing that she is in a tricky situation...
which might turn out very bad in the end. Sometimes we must wait for a very long time until we hear news from Nour again. At times it is good news, at other times it is not. As we wait, we imagine all the possible things that could be happening to Nour meanwhile. As a game reviewer Chan puts it: “when Nour stops texting you, tucked safely in your cozy bed with a roof over your head, you’ll find yourself wondering if she’s alright” (Chan 2017).

4. CONCLUSIONS

This case study has shown that Bury Me, My Love successfully creates a procedural representation of the experience of a person who accompanies the perilous journey of their loved one on a journey out of Syria via a messaging app. According to Aarseth’s theory of the cybertext, the levels of user function in BMML are the interpretative, the explorative and the configurative user function. The procedural representation of the migrants’ journey is created in particular through the reproduction of patterns of chatting which are familiar to us from everyday life. Immersion is built through recreating many of these dynamics of real-life chatting practice relatively accurately, but also through the incorporation of the configurative user function.

5. FUTURE WORK

In this case study, we looked at how the act of chatting and chatting as interface contributes to the player experience of the game Bury Me, My Love. BMML could in fact be analysed from a multitude of perspectives, as a news game or persuasive game about an ethically pressing issue. We analysed BMML using an auto ethnographic approach. We might diversify our research approach to include other methodologies targeting questions related to chatting as interface within BMML. Alternately, we could analyse a different game in order to build a deeper qualitative understanding of chatting as interface in games in general.

ACKNOWLEDGEMENTS

This work was developed under the supervision of Professors Dr. Patrícia Gouveia (FBAUL) and Dr. Diamantino Freitas (FEUP). This work was financially supported by Operation NORTE-08-5369-FSE-000049 co funded by the European Social Fund (FSE) through NORTE 2020 - Programa Operacional Regional do NORTE.


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