COMMUNICATING A TRUSTWORTHY ONLINE ORGANISATIONAL IDENTITY WITH CHATBOTS

Indra Mckie
University of Technology Sydney

Dr Bhuva Narayan
University of Technology Sydney

Introduction

Conversational bots, otherwise known as chatbots, operate within the fourth industrial revolution as a client-facing form of AI. They are communicative interfaces that mimic human conversation to deliver information in a highly personalised way. The user experience of chatbots can change the way individuals, groups and organisations define themselves online (Whitley, Gal & Kjaergaard, 2014). This paper discusses the opportunities in building an online identity via chatbots, with emphasis on harnessing the properties of chatbots that can develop trust with users. Currently, organisations are limited to the properties and affordances of web browsers, search engines and social media to communicate a "shared symbolic representation" (Gioia, 1998). This paper focuses on the organisational identity of a university library, and details both opportunities and vulnerabilities in establishing trust with users through chatbots.

Background

The theme for this year's AOIR conference is trust, and how this "techno-emotion" (Svedmark, 2016) shapes our culture and actions on the Internet. As organisations assume an online presence to globalise their agenda and existence, a 'shared symbolic representation' (Gioia, 1998) is curated across the expanse of the internet. Traditionally, transcendence from a physical human entity into an online identity includes the creation of multiple web domains, web pages, email and social media accounts. Some examples include, but are not limited to: logos, videos, style guides, articles and advertisements. Overall, in establishing an online organisational identity, a vast amount of Internet collateral is produced to attract users to their beliefs. Unfortunately, due to the archival

nature of browsers, search engines and social media, content is buried under layers of activity. The result of organisations communicating their message through websites and social media is that fragments of human knowledge are lost, under-accessed and made ineffective (Carlson, 2003).

Users are assumed to have a competent enough level of digital literacy to independently navigate through our unregulated systems. Next, users are weighted with the decision-making process of evaluating information and the sources or bodies that provide it. Information overload is a term used to describe a situation where a person is overwhelmed and cannot process any informative or communicative messages, only to terminate or decrease their ability to process information (Beaudoin, 2008).

Conceptual framework

Investigation of the form and functionality of chatbots is vital to understand why developers aim to mimic humans, emotion and dialogue to enhance the users' experience of chatbots. Conversation is now the object of design (Folstad & Brandtzaeg 2017), developers no longer need to shove the entirety of an organisation's goals and beliefs into a navigational bar, instead information can be retrieved at a point of need by anticipating the user's goals via conversation. All chatbot interaction is contained to a central chat interface, where users express an information need and receive instant feedback - users are no longer ticket #348 or the 6th person in line when seeking help from organisations. Users can quickly search for information using culturally-based language conventions, and the chatbot can present information as highly contextualised messages. Hyperlinks, instructional videos and calendar invitations can be presented to the user as the chatbot 'mimics intelligent conversation.' (Abdul-Kader & Woods, 2015, p.71).

'The interface simply provides the access to the underlying database' (Manovich, 2007, p.45), for underneath every chatbot is a library of items containing an intent, utterances and a response. If each item is stored in the database as equals, their context is erased, only to be re-deciphered and given meaning by the end user. Chatbots retrieve information in an anti-narrative sequence (Manovich, 2007), thus the conversational interface must rely on the constitution of an artificial personality to establish a consistent user experience. This user experience is dictated via the dynamic relationship between the "designed humanness" and "perceived anthropomorphism" in conversational UI design (Smestad, 2018). By designing personality and social roles into our chatbots we create new characters, or new identities. Constitution of personality as a method to increase perceived consistency and trust helps users to develop confidence in automated bots and their decisions (Alaieri & Vellino, 2016).

However, there are also reasons for users to develop a distrust towards chatbots. To many, the technical skill needed to develop and understand how these machines work is out of reach. Thus, lack of transparency can lead to many assumptions regarding malicious activity such as privacy threats (Chung, *et al.*, 2017), ethical misconduct (Alaieri & Vellino, 2016), or out of control self-learning bots such as Microsoft's anti-Semitic Tay (Neff & Nagy, 2016).

By 2020, we will be conversing with chatbots more than our spouses or partners (Deloitte, 2018) and by 2022, chatbots have been estimated to save businesses around

8 billion dollars as either a supplement or replacement of human workers (Smestad, 2018). As chatbots become increasingly popular we will find ourselves speaking to artificially intelligent beings in our home, work and school lives. Our social relationships with them and thus the social identities we build and design for chatbots will 'shape the essences of who we are, and regulate our identities, values, feelings and moods' (Gilbert, 2005, p.299) – and especially our techo-emotions such as trust.

Findings

In our study, first year undergraduate students, the largest cohort with a shared university experience was identified as a prime audience for the chatbot. Chatbots were thought to be able to address library anxiety and would suit their last-minute information-seeking behaviours. Drawing from a range of online and face to face student and librarian interactions, we referred to Q&A forums, consultation records, student personas, and live chat transcripts to inform conversational design, harnessing pre-existing data to populate the chatbot. Due to the polysemic nature of language we needed to creatively frame different information needs in the chatbot's training dataset; for example, the word 'book' was linked to multiple goals of the students: find a book, book a room, or reference a book.

Reflecting on the research, we found that framing the chatbot towards a particular audience was important in building trust. Our trust as developers on the chatbot was tested as building the agent required lots of resourcing and time. As well, we found that it was difficult to incentivise human staff to trust in the success of the chatbot. The findings of this ongoing study will be of interest to organisations who plan to develop a chatbot as part of their Internet communications strategy.

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