

Automated Small Talk in a Team: Phatic Messages as the Fundamental Communicative Function of a Socialbot

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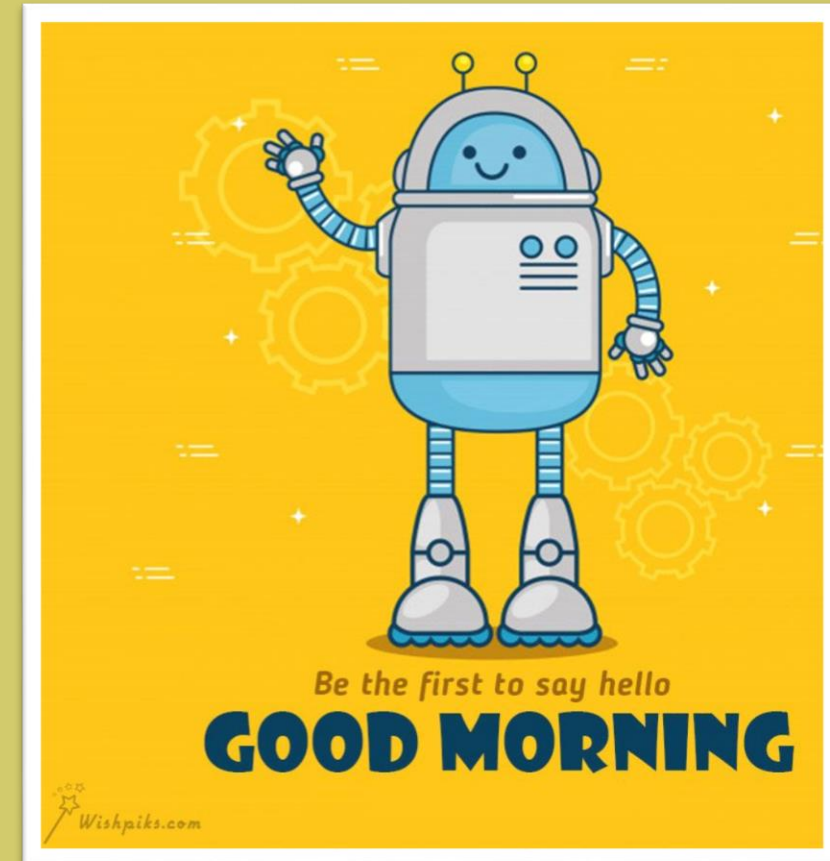
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70th Annual ICA Conference, 2020
HMC Interest Group Pre-Conference



BACKGROUND: SOCIALBOTS

- Algorithm-based technologies are exceedingly utilized as a part of organizational communication processes
 - Rather than just **supporting** communication, these new technologies **take part in** social interaction as non-human communicators (e.g. Guzman & Lewis, 2019; Edwards et al., 2016; Jones, 2014; Shaikh, Cruz, & Hollingshead, 2019).
- Algorithm-based technologies are often viewed as **tools**.
 - Value seen in increasing performance of a team or optimizing organizational processes (e.g. Shaikh et al., 2019; Owen, 2015).



BACKGROUND: SOCIALBOTS

- **Socialbots**

- “Automatic or semi-automatic computer programs that mimic humans and/or human behavior” (Wagner, Mitter, Korner, & Strohmaier, 2012).
- Human-like, communicate in natural language and have their own account in the collaborative system (Boshmaf et al., 2011).
- Implications of similar technologies have been studied in the context of public social media (e.g., Gorwa & Guilbeault, 2018; Graham & Ackland, 2016; Grimme et al., 2017), but research in organizational contexts is only starting to emerge (Meske & Amojó, 2018; Stieglitz et al., 2018; Stoeckli, Uebernickel, & Brenner, 2018).
- Need for an examination and conceptualization of these bots in organizational (team) use
 - Additionally, a need for empirical data

BACKGROUND: PHATIC COMMUNICATION

- Complex concept without one clear-cut definition, often referred to as "Small Talk" (see e.g. Zegarac 1998)
- General characteristics:
 - Phatic communication has the purpose of being social, and does not usually include sharing information or ideas (Radovanovic & Ragnedda 2012)
 - It has a clear socio-pragmatic function in human communication, but without any clear informational goal or aim (Schneider 2009)
 - These messages generally include greetings, pleasantries and other non-informational contents (Malinowski, 1923)
 - It is **always** context-related and dependant on the social conventions and contexts (e.g. culture) (Malinowski 1935; Schneider 2009)

BACKGROUND: PHATIC COMMUNICATION

- Phatic communication in **digital environments** refers to messages or posts that do not have a work-related or task-focused intention, but rather contain social and semantic value
 - On social network sites, the phatic messages have an important role in setting the social and informational context of the rest of the conversation and reinforcing relationships (Radovanovic & Ragnedda 2012).
- These phatic messages do not directly support the instrumental, or 'tool-like', possibilities often attached to the data processing and information producing features of algorithm-based technologies.
 - Socialbots using phatic messages might challenge the way we perceive algorithm-based technologies mainly as functional tools

AIM OF THE STUDY

- The aim of the study is to increase understanding of socialbots in team interaction and, more specifically, the phatic communication by the bot.
- Focus on **Slackbot** → an automated socialbot embedded into an increasingly popular online collaborative software, Slack.
 - Slackbot is a response bot that has multiple **pre-programmed** (by organization/team) functions:
 - integrations to various social media services
 - helpful reminders
 - **“human-like” messages and responses in the team discussion feed**
 - Slackbot has its own profile picture and its messages appear in the feed similarly to messages from other users, but its responses are **triggered** based on a certain word or phrase in the previous message.



DATA

- Data were collected from Slack conversations of a partially distributed journalistic team working for a large Nordic media organization.
 - Most of the time, the team consists of a producer, a graphic designer, and four journalists. The only permanent members of the team are the editor and the graphic designer with the journalists joining and leaving the team in two-to-three-year cycles.
 - The studied thread includes messages from 18 different team members.
- The dataset consists of a message thread including 45,940 individual messages by the human-members and the bot
 - Messages ranging over 2 years (Aug 2016 – Oct 2018)
 - 2,425 messages from the Slackbot



METHOD

- All Slackbot messages (n= 2,425) were identified and the pre-programmed bot responses (at the time of the data collection) were **qualitatively** categorized into response types.
 - Type categorizations were formed by examining both the **content** of the actual response as well as the programmed **trigger words** activating said response.
- Phatic messages in this study were bot responses that **did not** include a) work/journalism-related content, b) a clear proposal for an action
 - We divided the phatic messages into two categories: 1) Phatic (greetings, cursing, gibberish) and 2) Relational phatic (inside jokes, comments about the team members, motivational messages)
- After initial categorization, we examined the frequency of each response type, thus gaining information about the bot's participation in the team discussion.

FINDINGS

- Out of 76 pre-programmed bot responses 37 were phatic messages
 - Out of 2,425 Slackbot responses...
 - 978 (40,3 %) were purely phatic messages (i.e. greetings, cursing and gibberish) and
 - 430 (17,7 %) were phatic, but had some team building and relational functions
- a majority (n= 1408, 58 %) of the **actualized bot responses** were some kind of phatic messages.

		Frequency	Percent
Valid	,00	1447	59,7
	1,00	978	40,3
Total		2425	100,0

Phatic responses

		Frequency	Percent
Valid	,00	1995	82,3
	1,00	430	17,7
Total		2425	100,0

Relational phatic responses

CONCLUSIONS

- Socialbot's main communicative function is not necessarily to optimize processes and increase productivity, but rather induce relational team communication
 - In contrast to previous views of bots and algorithm-based technologies as *tools*
- In a way, a socialbot (similar to the one examined in this study) is a lot like phatic communication itself:
 - It **reflects the team's own cultural and communicative norms and practices** (pre-programming)
 - It mainly has **social and relational value**, rather than informative and task-related functions
- Socialbots in a team setting can be valuable companions and be used to establish team culture and communication style

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THANK YOU!

