

WHY DO PEOPLE USE CHATBOTS?

Petter Bae Brandtzaeg &
Asbjørn Følstad, SINTEF

INSCI 2017, Thessaloniki

**Good morning, Petter
Bae! I have a good feeling
about today 😊**

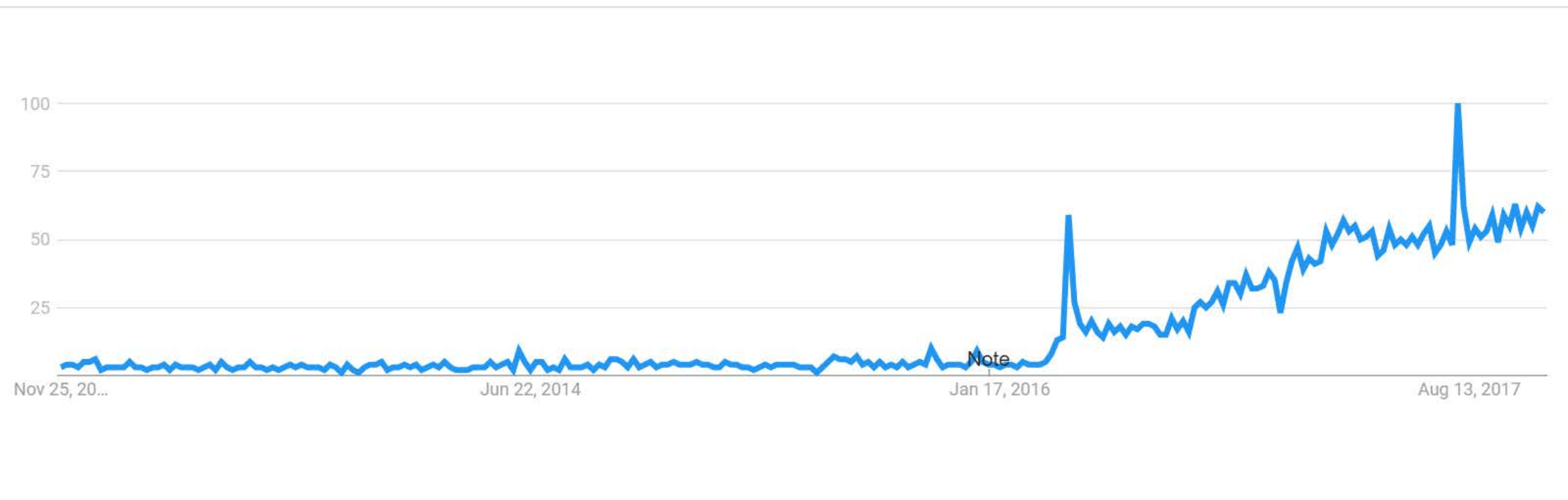
I'n going to present at a conference today. Can you do it for me? Please

Ummm I can try!

Great! It's about why people use chatbots.

Interest over time, last five years, "chatbots"

Interest over time ?



Great promises – botification for apps

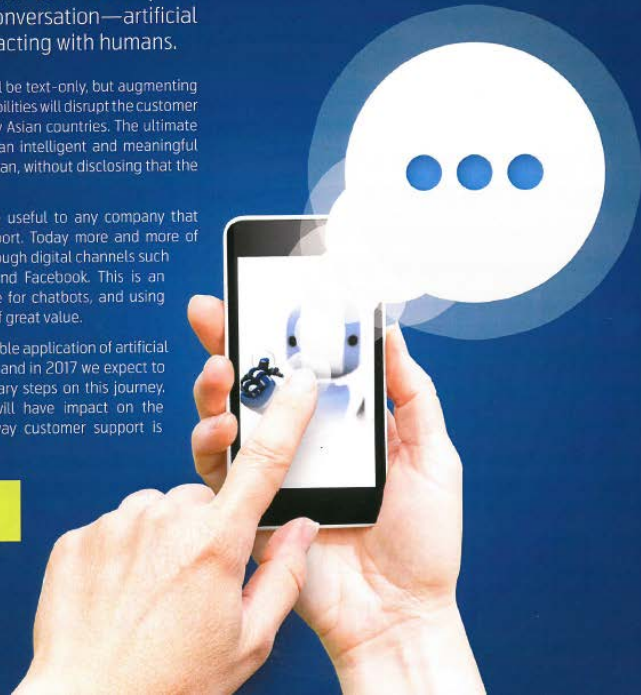
CHATBOTS SOON TO BE EVERY CUSTOMER'S BEST FRIEND

In 2017, we believe we will see increased experimentation with chatbots. Chatbots can briefly be described as computer programs able to carry out a meaningful conversation—artificial intelligence interacting with humans.

Initially, the chatbots will be text-only, but augmenting with speech to text capabilities will disrupt the customer support process in many Asian countries. The ultimate chat bot can carry out an intelligent and meaningful conversation with a human, without disclosing that the chat bot is artificial.

This technology can be useful to any company that provides customer support. Today more and more of this support is given through digital channels such as email, SMS, chats and Facebook. This is an opportunity tailor-made for chatbots, and using chatbots is potentially of great value.

This is a viable and tangible application of artificial intelligence algorithms, and in 2017 we expect to see important, preliminary steps on this journey. Specifically, chatbots will have impact on the modern telco in the way customer support is carried out.

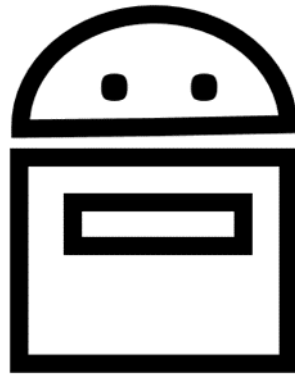


"Bots are the new apps"



Conversation as a platform

What are chatbots?

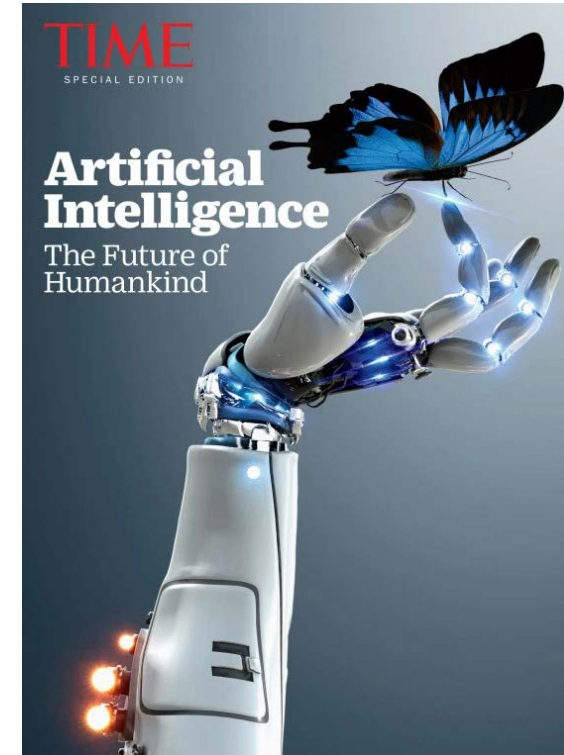


The Internet is turning upside down



TIME, Januar, 2006

User as creative and content producers

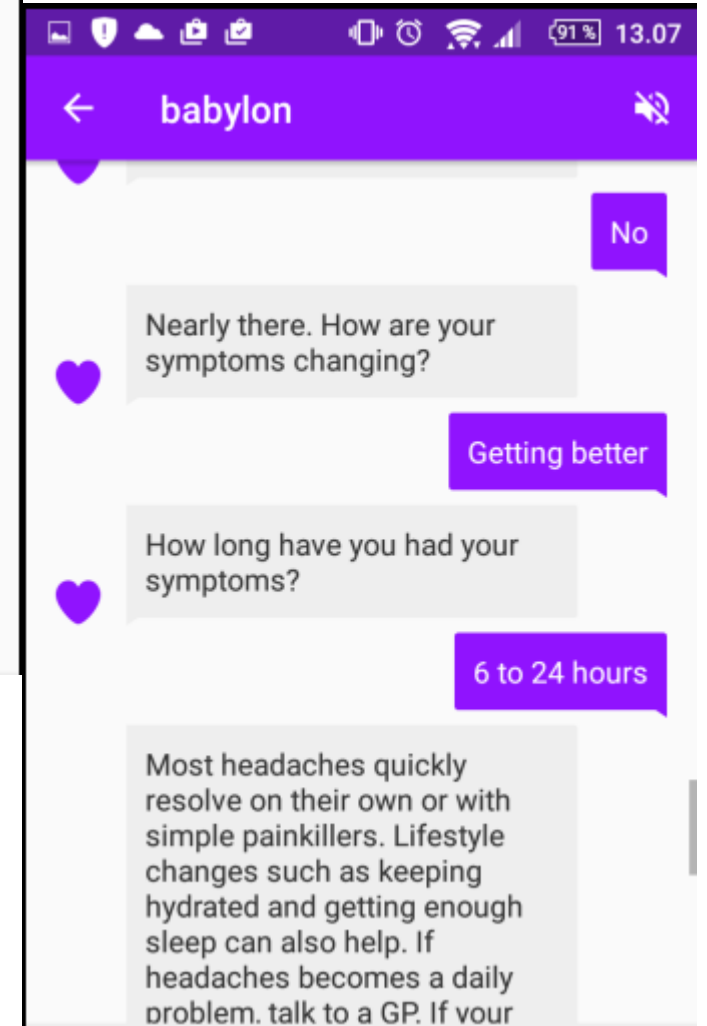
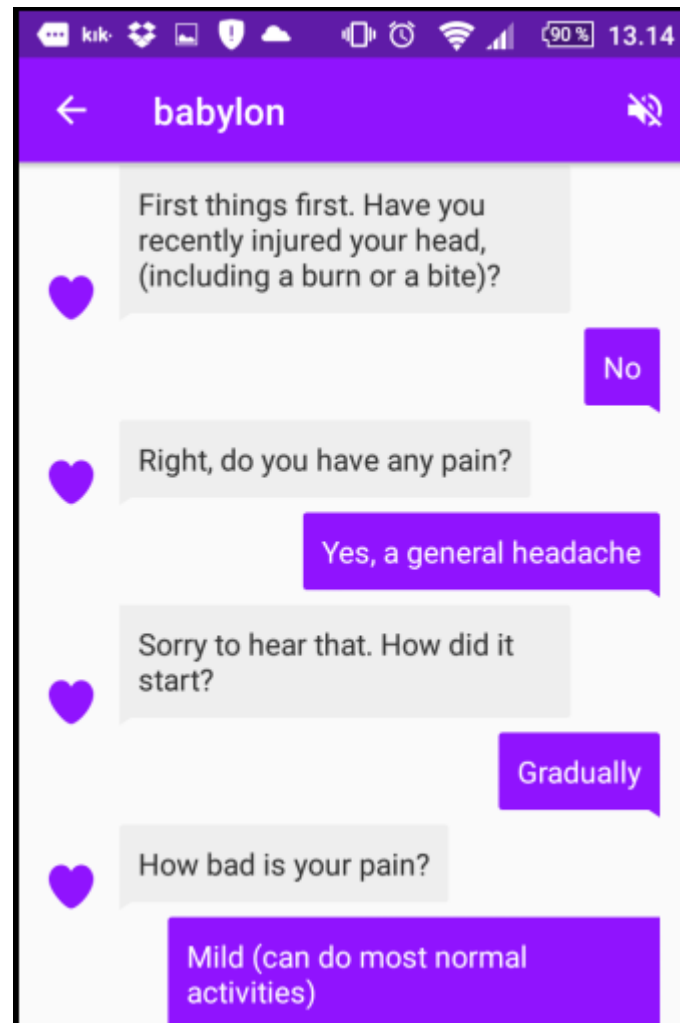


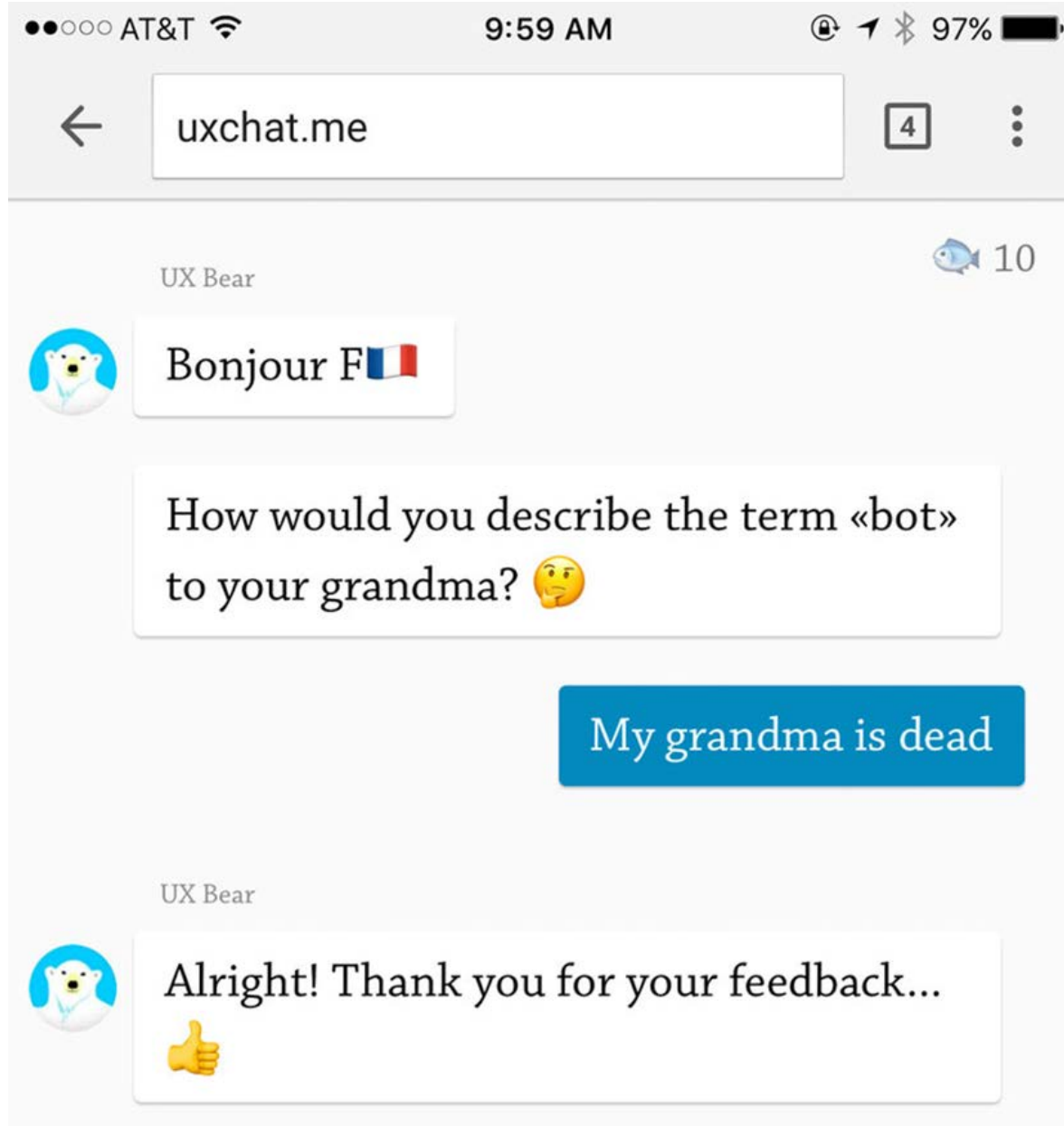
TIME Oktober, 2017

Machines as creative and content producers

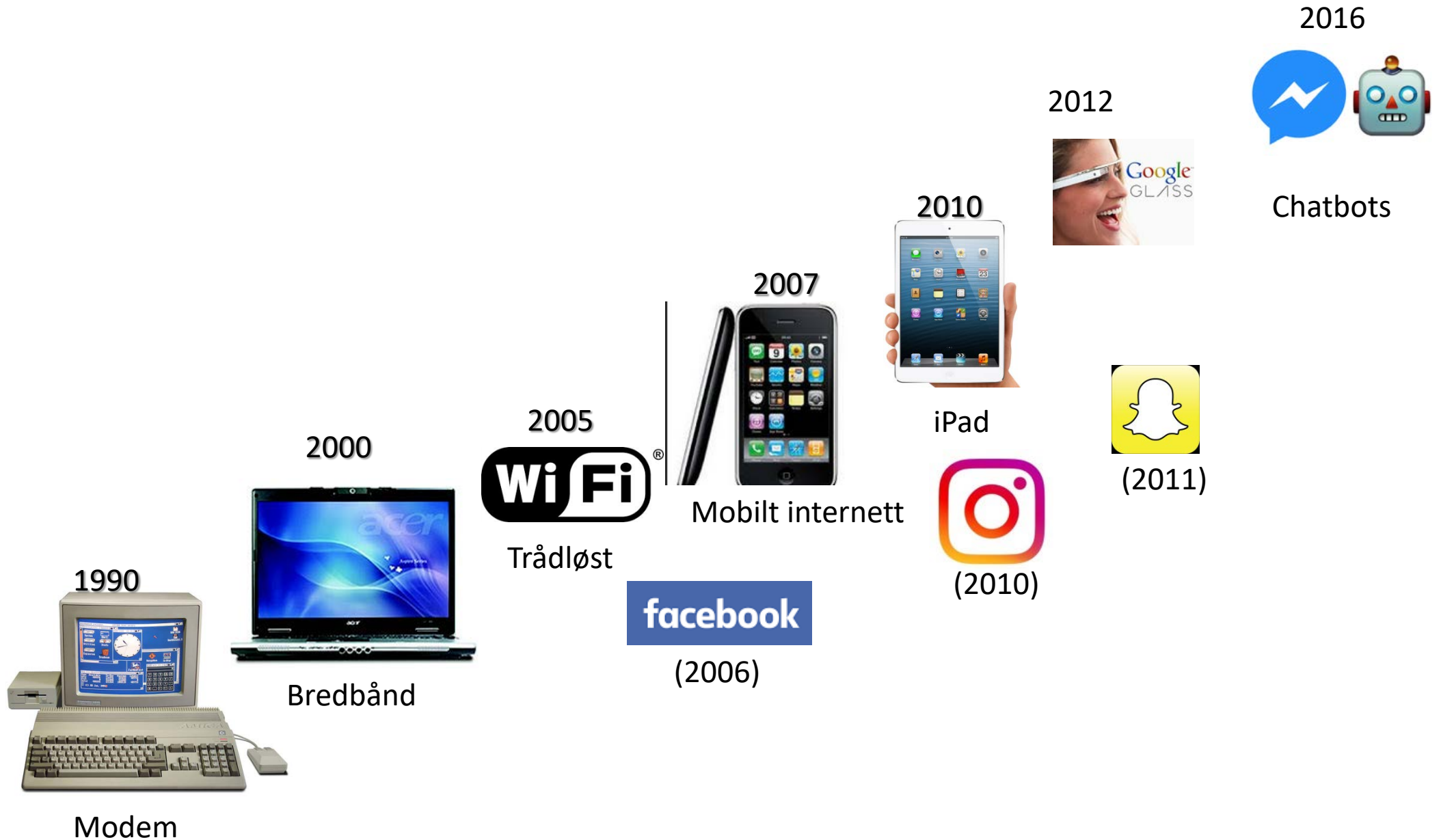
Chatbots = automatic agent powered with AI that communicate with online users in natural language (text, audio)

These allow users to type questions (i.e., queries) and, in return, generating meaningful answers to those questions

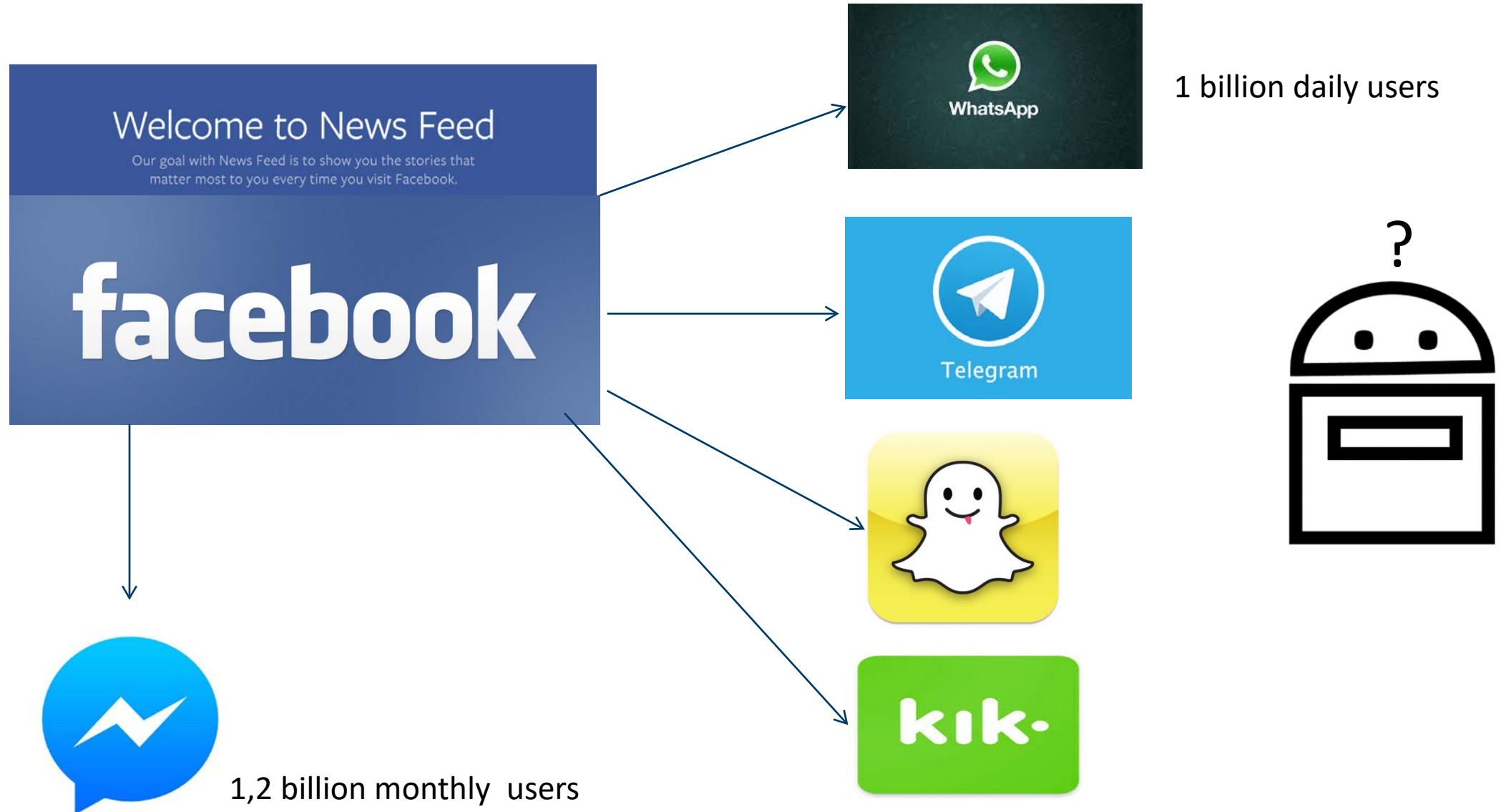




A changing user interface



Why are chatbots trending now ? "The dark social"



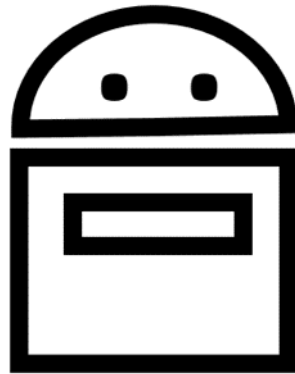
Facebook messenger platform for chatbots

+ 30.000 chatbots

- But many users don't use a chatbot over time
- Understanding the **user's motivation is key** to the successful adoption of technology for long-term well-being use



Why do people use chatbots?



User motivations – limited understanding of how and why people use chatbots

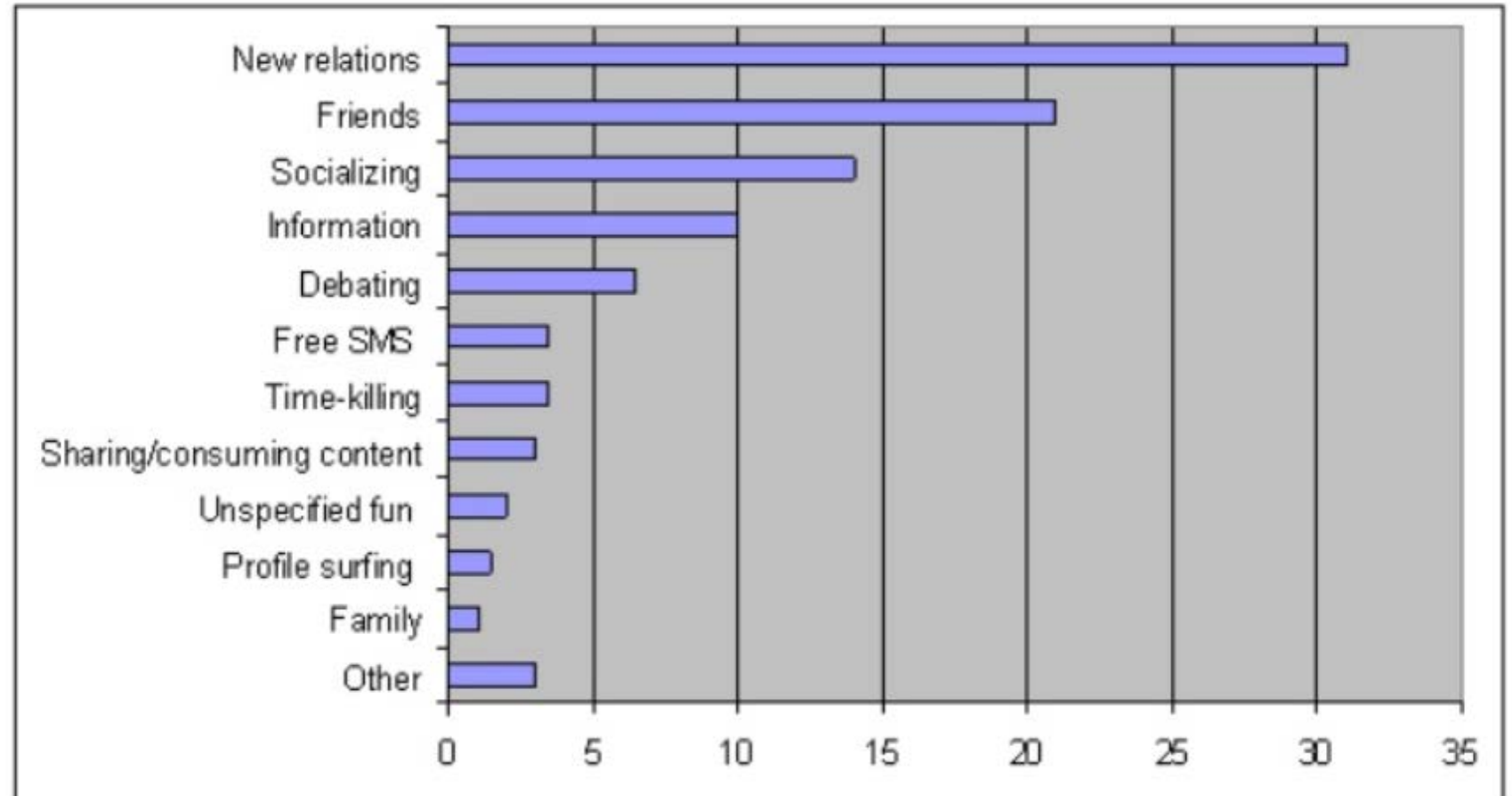
People differ in their purposes and user motivations



Overview over the user motivations in SNSs in % , number of counts = 1518 (N 1200)

Questions – open ended:

*What is your
main reason for
using SNSs?*



Questionnaire survey among US chatbot users

Conducted by Survata

146 participants

16-55 years of age



Why people use chatbots

Petter Bae Brandtzaeg¹ and Asbjørn Følstad²

^{1,2} SINTEF,
Forskningsveien 1, 0314 OSLO, Norway

¹petter.b.brandtzag@sintef.no

Abstract. There is a growing interest in chatbots, which are machine agents serving as natural language user interfaces for data and service providers. However, no studies have empirically investigated people's motivations for using chatbots. In this study, an online questionnaire asked chatbot users (N = 146, aged 16–55 years) from the US to report their reasons for using chatbots. The study identifies key motivational factors driving chatbot use. The most frequently reported motivational factor is “productivity”; chatbots help users to obtain timely and efficient assistance or information. Chatbot users also reported motivations pertaining to entertainment, social and relational factors, and curiosity about what they view as a novel phenomenon. The findings are discussed in terms of the uses and gratifications theory, and they provide insight into why people choose to interact with automated agents online. The findings can help developers facilitate better human–chatbot interaction experiences in the future. Possible design guidelines are suggested, reflecting different chatbot user motivations.

Keywords: Chatbots, motivations, uses and gratifications.

1 Introduction

Chatbots represent a potential shift in how people interact with data and services online. While there is currently a surge of interest in chatbot design and development, we lack knowledge about why people use chatbots.

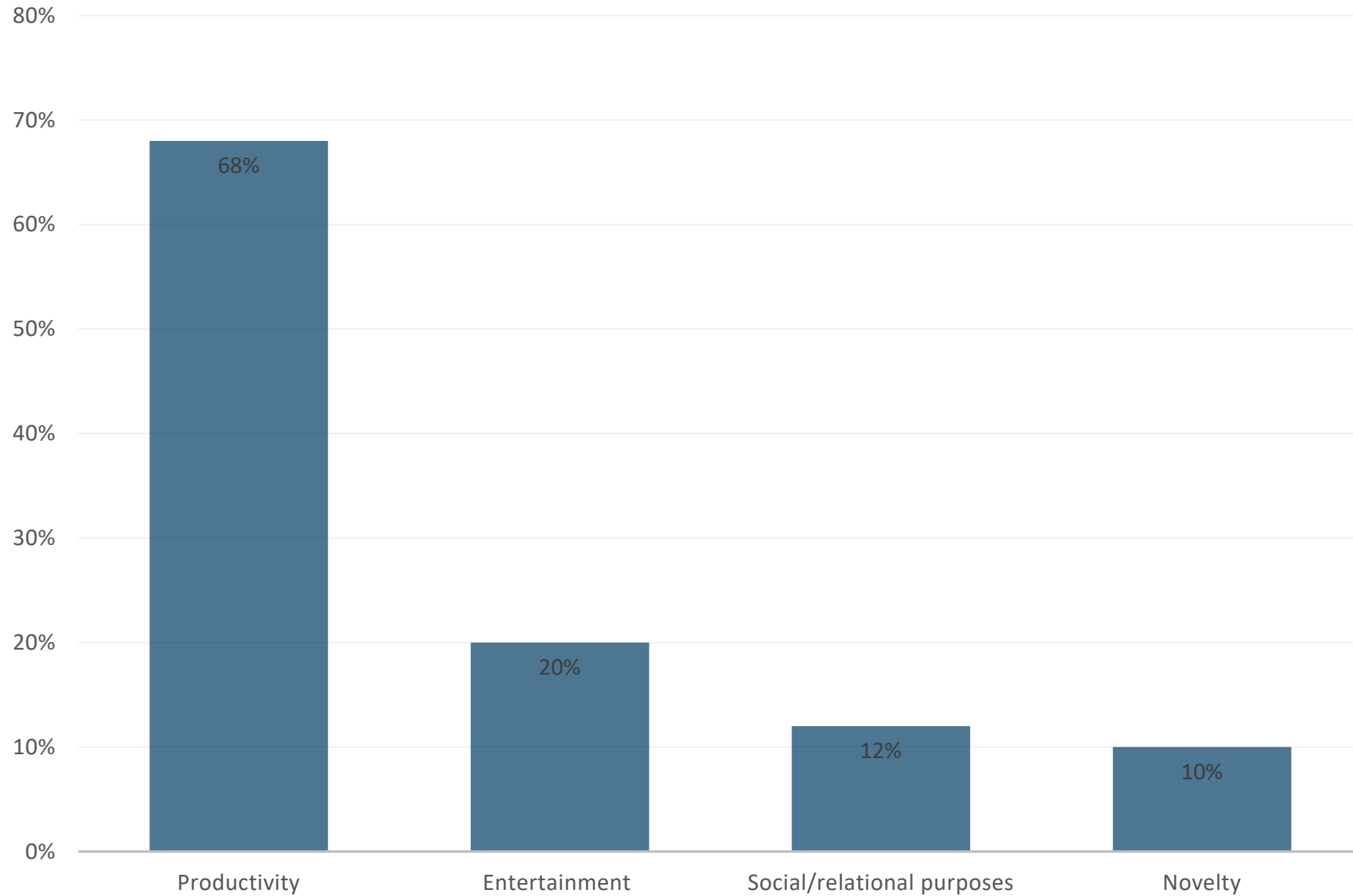
Chatbots are machine agents that serve as natural language user interfaces for data and service providers [1]. Currently, chatbots are typically designed and developed for mobile messaging applications [2].

The current interest in chatbots is spurred by recent developments in artificial intelligence (AI) and machine learning. Major Internet companies such as Google, Facebook, and Microsoft see chatbots as the next popular technology; Microsoft CEO Satya Nadella said, “Chatbots are the new apps” [3]. In Spring 2016, Facebook and Microsoft provided resources for creating chatbots to be integrated into their respective messaging platforms, Messenger and Skype. One year later, more than 30,000 chatbots have been launched on Facebook Messenger. Other messaging platforms have also seen a substantial increase in chatbots, including Slack, Kik, and Viber. Chatbots are seen as a means for direct user or customer engagement through text messaging for customer

Open ended question

*What is your main reason
for using chatbots?*

What is your main reason for using chatbots? (N=146)



Different platforms have different purposes



The image is a screenshot of a Twitter interface. At the top left is the Twitter logo. At the top right is a navigation bar with links for Home, Profile, Find People, Settings, Help, and Sign out. The main content is a tweet from user dtapscott (Don Tapscott). The tweet text reads: "RT @CelinaAgaton: Read Hoffman. 'Twitter is the bar, Facebook is the BBQ, and LinkedIn is the office' (via @quixotic) #i2i". To the right of the text are icons for a star and a retweet arrow. Below the text is the timestamp "5:30 PM Jun 9th from TweetDeck". At the bottom left is a profile picture of Don Tapscott, followed by his username "dtapscott" and name "Don Tapscott".

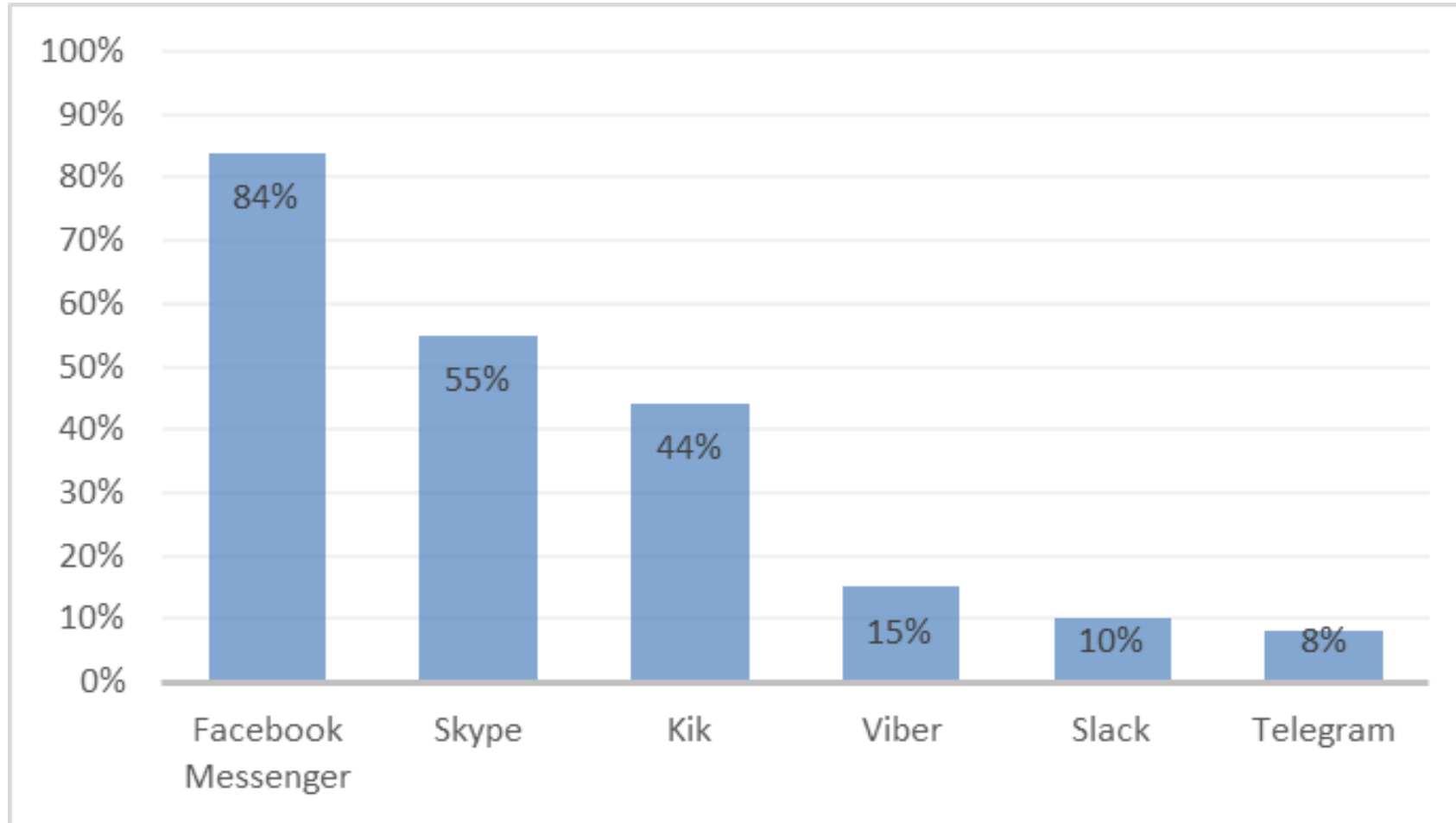
twitter

Home Profile Find People Settings Help Sign out

RT @CelinaAgaton: Read Hoffman.
"Twitter is the bar, Facebook is the
BBQ, and LinkedIn is the office" (via
@quixotic) #i2i

5:30 PM Jun 9th from TweetDeck

 dtapscott
Don Tapscott



Proportion of participants reporting use of different messaging platforms for chatbot interactions (N = 146).

Chatbots as new media experiences

64% reported using chatbots for two years or less.

I use chatbots instead of a search engine to help with daily tasks. (P67)

Chatbots for **productivity** (68%)

- Ease, speed and convenience
- To obtain help and information

I think that they make customer service easier. Often times human beings can get frustrated or have attitude. A program lacks those poor qualities. (P155)

Chatbots for **entertainment** (20%)

- Positive entertainment value
- Bored, to kill time

It's fun and entertaining. I like chatbots that have funny things to say. (P99)

Usually to ask a question and be entertained with an answer. (P301)

Chatbots for **social/relational purposes** (12%)

- Social value of chatbot interaction
- Enhance social relations with others

I use them when I feel bored or rather when I feel down and have no one else to go to, it just relaxes me in a way. Gives me someone to vent to without getting judged, I know they aren't real but it feels like it is. (P264)

if your lonely and just want a chat with someone else. (P141)

Chatbots for **the novelty of it** (10%)

- Curious and want to try out
- Early phase of development

[...] It's interesting to see what people can come up with, how lifelike they will be-come. Sadly, very few pass the test. They are all repetitive in some way. (P88)

They're new and intriguing. (P66)

Conclusion

Why do people use chatbots?

Productivity important

-> identify use cases where chatbot provides highest usefulness

Entertainment and social motivations

-> support engaging and relational experiences

Novelty a motivator for some

-> may provide useful leverage – for the time being ...

Thank you!

Contact: pbb@sintef.no or
twitter @petterbb

Follow us on Facebook:
[https://www.facebook.com/
SocialHealthBots/](https://www.facebook.com/SocialHealthBots/)