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# Like My Style: Conversation Style 101 for Bots

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# Like My Style?



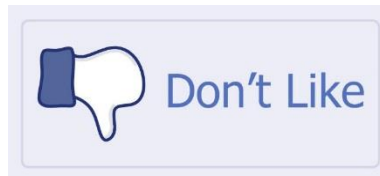


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# Conversation Gone Bad?



TRUST



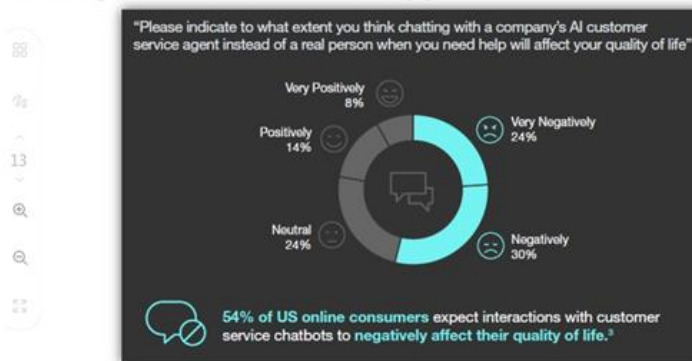


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# The Problem

- Conversation style sets expectations
  - Impacts how listeners respond & engage
- Mismatch leads to failed expectations & interactions
- Mismatch impacts the ROI & benefits of bots

## We expect chatbots to disappoint \*



Source: Forrester Analytics Consumer Energy Index Online Survey, US Consumers 2018

54% of US consumers expect talking to AI bots will impact their quality of life negatively.

\* Source: Forrester Analytics Consumer Energy Index Online Survey, US Consumers, 2018



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# Your Opportunity

- Understand the dimensions that determine style
- Know what questions to ask & how the answers determine style
- Create more effective bots
- Reap the benefits of your investment





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# Style Mismatches

<b>Purpose</b>	Social, informational, educational, political, customer service, retention, personal assistant, ...
<b>Demographics</b>	Culture, age, gender, occupation, education, location, ...
<b>Setting</b>	Social, relationships, accessibility, channel, media, ...
<b>Information organization</b>	Order of concepts, introductions, repetition, summary, hierarchy vs. linear, ...
<b>Personality</b>	Preferences, attitude, aptitude, learning style, life style, ...
<b>Linguistic</b>	Language, dialect, formality, grammar, ... Vocabulary, jargon, slang, word order, ... Prosody, intonation, volume, pronunciation, delivery, ... Auditory, visual, movement, touch, ... “Rules of engagement”: Turn-taking, topic change, pacing, pausing, interrupting, back channeling, handling misunderstandings, ...

# Conversation Models

## Sports Models

- From foreign language learning
- Turn-taking, pausing, control
- Who has the ball? = Who is talking?



## Sensory Models

- From perceptual learning and processing
- How senses engage in communication



## Other Models

- From sociolinguistics & HCI
- Personality, Intention, Involvement, Politeness





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# Ping Pong



## Table Tennis

*No stealing the ball*  
*No interrupting*  
*Quick turn-taking*  
*Multiple turns*

Hi, what's your name?

John

What brings you here?

I want to meet people. And you?

I wanna learn how to whistle.

...



# Bowling



What's your favorite color?

Blue is a beautiful color... waves of the ocean. My favorite crayon colors are Cerulean Blue, Green-Blue, Midnight Blue, Sky Blue, Wave Blue, and especially Cornflower. Just saying the word Cornflower makes me feel like a flower on the wall. Orchid, iris, hydrangea, forget-me-not.... I love Blues music, blue moons, and blue cheese dressing. Chris Blue is the life of the party because he tells a joke or two....

<listens and waits turn>

*No stealing the ball*  
*No interrupting*  
*Long turns*

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# Basketball



Did you see those crazy robots in Veg...?







OMG! One of them was baking bread and I played a game with another and..."

I know, right? And did you see that robo shark? So James Bond! Did you know Sean Connery wrote...

YES! Warhead!  
But they never..."

*Stealing the ball*  
*Interrupting*  
*Medium turns*

# Sports Styles Turn-Taking

Interrupting			
Turn-Taking:		Waiting Your Turn	Stealing the Ball/ Interrupting OK
Speed & Pausing	Quick turns, few pauses	Ping Pong 	Rugby 
	Medium turns, tactical flexible pausing	Volleyball 	Basketball 
	Longer turns, Rule-based prescribed pauses	Bowling 	American Football 



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# Sensory Styles for Bots

## Visual



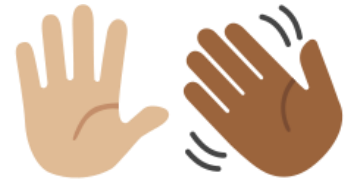
- Text, font, icons
- Graphics, color
- Screens, links, figures

## Auditory



- Speech, voice
- Sounds, jingles, music
- Phones, devices

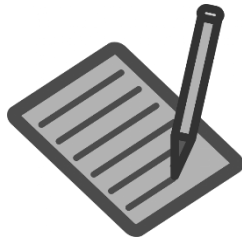
## Kinetic



- Touch, motion
- Gestures, shapes
- Spatial, sensors, robots



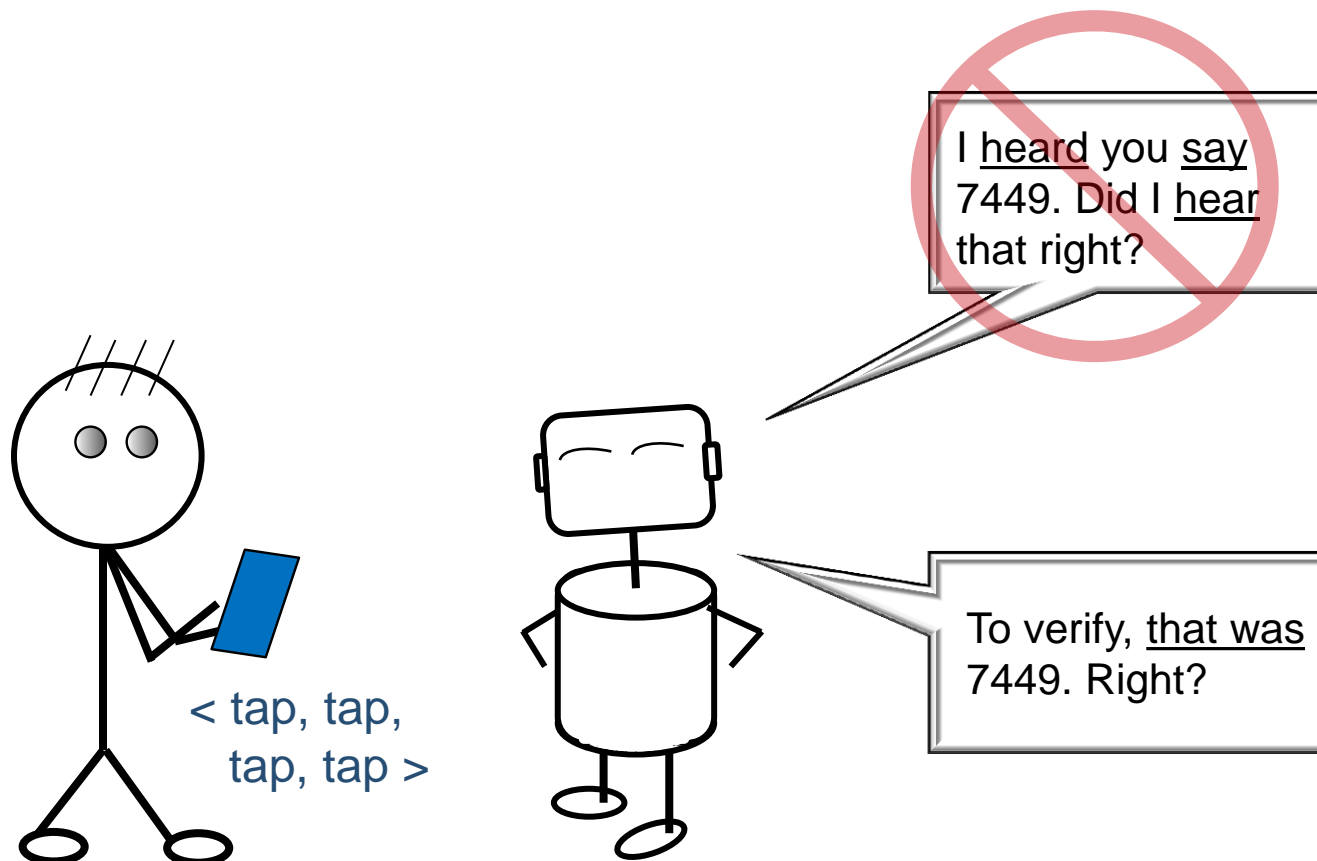
# Cater to the Senses



Written & Graphical	Verbal & Audio	Tactile & Movement
Complex info & concepts	Simple info, easy to explain	Instinctive info
Facts, interpretation of emotions	Emotional content	Direct emotions, physical & spatial relationships
Permanent, persistent	Ephemeral, short-lived, impermanent	Precision from touch, motion & gesture
Quiet zones, audio privacy	Speed, time urgency	Immediate interaction, physical intimacy



# Sensory Style Affects Language





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# Other Dimensions

Culture & Demographics

Power/Respect/Trust

Personality & Persona

Social Interaction Style

Style of Influence

Purpose

Mental/Emotional

Attitudes

Practical Circumstances & Context



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# How to Apply Styles



US, mixed  
initiative,  
barge-in:  
**Basketball**

Japan, very  
polite, news  
briefing,  
storytelling:  
**Bowling**



Age &  
accessibility:  
**voice** versus  
**text**



US, fast-  
paced,  
informal  
polite:  
**Ping Pong**



Driving GPS:  
Multi-sensory,  
**speech, sight,**  
**minimal touch**



Hands-free,  
eyes-free:  
**voice** versus  
**text** versus  
**tactile**

Secure &  
personal info:  
**visual**



# Tips for Bot Style

- Models can apply to a whole system or turn by turn
- Style can be personalized for cultural, personal or situational context
- Understand what conversation styles are appropriate for specific contexts
- Create a Persona Style Sheet for your bot
  - conversation style(s), turn-taking, sensory interaction, example wording, ...
- Know when & how to switch style
  - e.g. lively small talk versus giving bad news

# 5 Style Questions

When you design any bot, ask

1. What look/sound/feel to meet business goals?
2. What senses to engage in the conversation?
3. What style & personalization do users expect?
4. How to handle turn-taking?
5. What conversation results in effective interaction?

# Thoughts & Questions?



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