Like My Style:
Conversation Style 101 for Bots

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Like My Style?
Conversation Gone Bad?

[Images: woman covering her ears, trust signpost, man gesturing stop, to buy or not to buy, Facebook thumbs down, confused, lost, unclear, perplexed, disoriented, bewildered, questioning man]
The Problem

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

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
• 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
## Style Mismatches

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

Hi, what's your name?

John

What brings you here?

I want to meet people. And you?

I wanna learn how to whistle.

Table Tennis

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

No stealing the ball
No interrupting
Long turns

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

Did you see those crazy robots in Veg…?  

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

<table>
<thead>
<tr>
<th>Turn-Taking:</th>
<th>Waiting Your Turn</th>
<th>Stealing the Ball/Interrupting OK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quick turns, few pauses</strong></td>
<td>Ping Pong</td>
<td>Rugby</td>
</tr>
<tr>
<td><strong>Medium turns, tactical flexible pausing</strong></td>
<td>Volleyball</td>
<td>Basketball</td>
</tr>
<tr>
<td><strong>Longer turns, Rule-based prescribed pauses</strong></td>
<td>Bowling</td>
<td>American Football</td>
</tr>
</tbody>
</table>
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
### Written & Graphical
- Complex info & concepts
- Facts, interpretation of emotions
- Permanent, persistent
- Quiet zones, audio privacy

### Verbal & Audio
- Simple info, easy to explain
- Emotional content
- Ephemeral, short-lived, impermanent
- Speed, time urgency

### Tactile & Movement
- Instinctive info
- Direct emotions, physical & spatial relationships
- Precision from touch, motion & gesture
- Immediate interaction, physical intimacy
I heard you say 7449. Did I hear that right?

To verify, that was 7449. Right?
**Other Dimensions**

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture &amp; Demographics</td>
</tr>
<tr>
<td>Power/Respect/Trust</td>
</tr>
<tr>
<td>Personality &amp; Persona</td>
</tr>
<tr>
<td>Social Interaction Style</td>
</tr>
<tr>
<td>Style of Influence</td>
</tr>
<tr>
<td>Purpose</td>
</tr>
<tr>
<td>Mental/Emotional</td>
</tr>
<tr>
<td>Attitudes</td>
</tr>
<tr>
<td>Practical Circumstances &amp; Context</td>
</tr>
</tbody>
</table>
How to Apply Styles

US, mixed initiative, barge-in: Basketball

Japan, very polite, news briefing, storytelling: Bowling

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

Age & accessibility: voice versus text

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

Secure & personal info: visual

US, fast-paced, informal polite: Ping Pong
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
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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