Emotional Intelligence-Driven Voice User Interface Design

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EI-DRIVEN VUI DESIGN: OVERVIEW

- What is Emotional Intelligence ("EI")?
  - Can a User Interface ("UI") exhibit EI?
    - The emotional state of the user
      - Some examples of UIs with high and low EI
    - Putting it all together – raising your UI’s EI
WHAT IS EMOTIONAL INTELLIGENCE?

“The ability to identify and manage your own emotions and the emotions of others” – Psychology Today

“Recognizing, understanding, and managing our own emotions. Recognizing, understanding, and influencing the emotions of others.” - Institute for Health and Human Potential

Emotional intelligence is being \textit{smarter} with feelings.
WHAT IS EMOTIONAL INTELLIGENCE?

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Taken from “Working with Emotional Intelligence” by Daniel Goleman
EI-DRIVEN DESIGN VS. BEST PRACTICES

VUI Design Best Practices

Best UX

Account for User’s Emotional State

UI Emotional Intelligence

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CAN UIs HAVE EMOTIONAL INTELLIGENCE?

♦ Empathy
  • Be sensitive to user’s answers: adjust options based on usage, address anger triggers, give extra time, acknowledge difficult sections
  • If user sounds frustrated: rephrase, allow DTMF, empathize with messages that put user at ease, respect the user, don’t admonish

♦ Conflict Management
  • Provide help if user is having trouble; set limits on retries and reprompts
  • Accept responsibility for mistakes, errors

♦ Self Awareness
  • Short menus, get to the point, easy access to an agent
  • Incremental tuning and improvement - optimization
  • Recognize how users want to use UI and adapt

♦ Trustworthiness
  • Identify and authenticate users efficiently – ANI, biometrics

♦ Authenticity
  • Build trust with user by representing the brand, being authoritative & respectful
MORE WAYS UIs CAN HAVE HIGH EI

- **Service Orientation**
  - Make use of / persist all knowledge about the user, on all channels

- **Building Bonds**
  - Personalization: personal greetings, relationship with company, profile information, previous interactions, relevant life events

- **Initiative**
  - Anticipate why user might be calling; be proactive; take into account user’s emotional state

- **Adaptability / Flexibility**
  - Change course smoothly; alter tone under ambiguous or changing conditions

- **Communication**
  - Be clear and straightforward - avoid excessive verbiage
  - Streamline common interactions; accept minimal input (e.g. dates)

- **Optimism**
  - Persist in the face of adversity, maintain positive attitude and outlook
LOW UI EI CONSEQUENCES

- Longer calls
- Decreased containment
- Frustration
  - Impatience, anger
  - Impacts attitude towards the application and the company

User experience suffers
  - Increased abandons, retries, effort, agent opt outs
  - Decreased engagement, complete transactions, CSAT, containment

Downstream experience suffers
  - CSR: increased handle time, escalation, lower FCR
  - Next channel: increased distress, less patience, more frustration
HIGH UI EI BENEFITS

- less likely to get angry or frustrated
- more likely to show patience
- more likely to trust the machine
- experience a more satisfying interface, even if they do not achieve their goal
- feel more positive about the company and its products
- more likely to transact via self-service than to need to speak to a human
HIGH UI EI BENEFITS

- Equally important: agents exercise good EI while speaking to customers
  - agents can use these same techniques (subtly) to calm down irate callers, address concerns, empathize, build trust
  - most important: avoid “amygdala hijack”

An Amygdala Hijack is an immediate and overwhelming emotional response out of proportion to the stimulus because it has triggered a more significant emotional threat. The amygdala is the part of our brain that handles emotions.
USER’S EMOTIONAL STATE

What is typical customer feeling before the Voice UX?

– Phone
  • Many people are reluctant to use the phone
  • Often, phone is channel of last resort
  • Battle-mentality – hostile, impatient, fed up, giving up, defeated
  • Hands free in a car or when travelling; may be distracted

– Siri / Alexa
  • People choose to use Siri because it’s fun / useful
  • Can still be frustrating – slow, inaccurate
  • Alexa is more functional; positive feedback loop is building

– Dictation
  • Speech-texting is convenient – saves time when it works
HOW DO USERS FEEL WHEN USING UI?

Emotions people have interacting with UI

- Some are immediate
- Important ones build up over time and repeated usage
- Positive: love, enjoyment, loyalty, appreciation, partnership, gratitude
- Negative: hate, frustration, irritation, disdain, contempt, impatience

Small things in UI can have long term impacts

- E.g. long-winded prompts that are legally “required”
- E.g. inconsistent hot words, like ‘main menu’ not recognized everywhere

Pay attention to how people interact with things in their daily lives

- Their behavior will teach you a lot about how to develop a UI that makes their lives easier, increases enjoyment, meets their expectations. (e.g. Steve Jobs)
Instead of UX defining and managing user's experience of a product or interface, flip it!

• User's behavior, attitude and emotions are what actually define the UX
• Take steps to ensure positive UX by employing a user-centric design process

“If you start with the idea that user experience is a feeling, you’ve already made progress toward really understanding user experience.”
-Matt Rintoul, 2014

Great design vs. Great experience

Product owner vs. Product user

→ Involve users of your product throughout the product planning, design, and development process.

How it works and sounds, vs. What do users expect of it before they use it for the first time?

Easy to navigate?
Are frequently used functions prioritized?
Does it sound great?

→ If they have a negative view of IVRs or towards your company, take into account
EXAMPLES OF UIs WITH LOW EI

- Observe some videos and calls with UIs that are not user-friendly
- Discuss what is wrong with these customer experiences and how EI could help improve them
Talk to Who?
Talk to Who? - Recap

- Simplest voice interface – the “answering machine”
- “The more ways we invent to not talk to a real person, the more we really just want to talk to a real person”
- “Lost art of human interaction”
- “Perfect mix of friendliness and professionalism”

Can your VUI achieve this without talking to a real person?
We’re Not Sorry We Missed You
We’re Not Sorry We Missed You - Recap

“What are you really saying to the customer who can’t reach a real person?”

“Making your customers feel special, while making you look good”

This is exactly what your VUI should set out to do.
Impersonal
Impersonal - Recap

- “It happens so often”
- “Being put first takes some getting used to”
- “Representative…. Representative... Representative?”

This shows the worst of Speech Interfaces – speaks to the user’s emotional state.
Dramatization. Professional driver on closed course. Do not attempt. Always secure your pets.
GPS for Dogs - Recap

- “One moment while I search roof repair”
- “Calling Ralph”
- “Vacation rentals in St. Bart’s”

Is this a good User Experience?
Voice Elevator
Voice Elevator - Recap

- “They installed voice recognition technology”
- “In a lift? In Scotland? It don’t do Scottish accents.”
- “Could you please repeat that.”
- “Try an American accent.”
- “Please speak slowly and clearly.”
- “I’m going to keep saying it till it understands Scottish.”
- “This is a voice activated elevator. Please state which floor you would like to go to in a clear and calm manner.”
- “You have not selected a floor. If you would like to get out of the elevator without selecting a floor, simply say ‘open the doors please.’”
- “Please remain calm.”

Does telling someone to be calm make them calm?
HIGH EI USER EXPERIENCES

Today's best products not only solve a clear pain point, but do so while understanding, eliciting, and amplifying the emotions of the consumer. - Sachin Rekhi

Apple – useful products that also:

• Delight us, surprise us, amaze us, elicit incredible emotional responses

Facebook’s Sharing

• Over 1BB people on Facebook on a single day – a massive audience
• Core FB Sharing and News Feed experience
• Incredibly simple social gestures that allow you to like and comment on posts, providing real-time and instant feedback to sharer
• Instant gratification results in visceral response, even more sharing
• Optimized positive feedback loop: reduce sharing friction, notifications via mobile/web/email, optimize news feed to drive engagement from closest friends, over-index shares from infrequent sharers, etc.
MORE HIGH EI USER EXPERIENCES

- **Instagram Photo Filters**
  - Use filters to enhance your photos and share them with your friends

- **Slack Channels**
  - `#random, #fun, #general, #etc` are the new hangouts or watercoolers, esp. for remote employees
  - Also, emoticons, bots, aliases enhance the fun

- **LinkedIn – Who is looking at your Profile?**
  - Curiosity, more than anything else, makes us look
  - Sticky feature, incredible emotional response

- **Amazon Customer Service**
  - We’ll call you – no waiting in queue; already authenticated; caller goal is pre-determined
VUI USER EXPERIENCES WITH HIGH EI

Examples from PTP speech apps:

– Greet users by name  **Building Bonds**
– Wish users happy birthday  **Personalization**
– Recognize ANI / phone number – and explain to user  **Trustworthiness**
– Enter account number – if you need more time I’ll hold on  **Empathy**
– Respect user’s time, make use of all knowledge – don’t over-confirm
  E.g. if DOB matches based on Member ID, skip confirm  **Service Orientation**
– Virtual Hold when queue is long  **Adaptability, Innovation**
– Language selection – keep listening for 9 in Main Menu  **Conscientiousness**
– Power company – tell user upfront if there’s an outage  **Authenticity**
– If call center is closed, don’t give options that require agent  **Self-Awareness**
– If a payment is overdue, go straight to make a payment flow  **Initiative**
According to Northstar research commissioned by Google, more than half of U.S. teenagers use voice-enabled functions on their phones every day, and more than 40 percent of adults do, for things like dictating text messages, getting directions and answering basic factual questions.

People are drawn to these kinds of services because speech is more natural than typing, even for digital natives.

Keyboard usage is not how we were born to communicate.

Faster, frees the hands, easier on hands and eyes.

Speaking to a device makes it feel more like you're interacting with it.

My 10-year old uses voice to send text messages on his phone.
SIRI AND EI

Are Siri, Google Now, Alexa, Cortana, Soundhound and the like subject to the same EI issues as a phone-based VUI?

On the one hand yes, they are subject to the same negative emotional responses (or positive ones)

• How often do people swear at Siri?
• How frustrating is it when Siri can’t understand you?
• When it thinks you said something other than what you said?

On the other hand, when it comes to users’ frame of mind, they are choosing to use Siri, vs. IVRs where they have no choice -- if they want customer service and they can't self-serve on the web... they MUST endure an IVR
RAISING YOUR UI’S EI

🍃 Develop Target Customer Personas
  • Build a complete **profile** of your target customer
  • Behavioral factors and **psychology**
  • Understand **pain** points
  • Customer **goals**
  • Design experiences that elicit desired **emotional** response

🍃 Design to Desired Emotions
  • We already design based on **scenarios** and use cases
  • E.g. Makes users feel **accomplished** (LinkedIn) or **empowered**
  • Select and build a **voice persona** that reflects a desired emotion
  • Make careful prompt **language** choices
MORE WAYS TO RAISE YOUR UI’S EI

_address_users_in_an_authentic_way_

- Poor user interfaces confuse users (e.g. what do you tell the user when an unexpected error happens)
- Language, style, diction, tone should be appealing
- Tone should be based on persona and desired emotions
- Be consistent across all channels – view all points of contact together

_attention_to_detail_

- Sometimes smallest details are what distinguish great products
- Don’t settle for generic prompts that you boiler plate in every app
- Edge cases, error states, in-product education, transitions
- Users will feel the holistic experience you produce
EMOTION IS STICKY

- People will forget what you said.
- People will forget what you did.
- People will never forget how you made them feel.

Dr. Maya Angelou
Discussion

What EI-related Best Practices do you use when designing VUI?

What are the biggest pain points you have seen in your UI/UX? Can they be explained by EI?

Feedback from your customers that reveals their emotional state while using VUI?

Ideas about how EI concepts can help overcome these challenges?
If you do not change direction, you may end up where you are heading.

~ Lao Tzu