EXPLORING THE EMOTIONAL USER EXPERIENCE

Bill Albert, PhD
Executive Director
User Experience Center
Bentley University
• Motivation
• 5 challenges
• Defining the emotional UX
• Measuring the emotional UX
• Getting started
A tough nut to crack!

- Natural evolution
- Unique challenges
- Big upsides
5 Challenges
1. Emotions are fleeting
2. Highly contextual

“Did they put cameras in there? I don’t like feeling under the microscope.”

Reluctant Participant

Does not like feeling “under the microscope”

Just had a bad day at work
3. Weak signals

- Roller coaster ride
- Being on a great first date
- Team winning the “big game”
- Watching a scary movie
- Friend telling a funny story
- Critical error on software
- Frustrated with a website
- Enjoying a new app
4. Driven by content

“$1.3 million looks good to me, oh and the software looks great too.”
5. Noisy Data
Defining the Emotional User Experience
Arousal

Happy:
calm       excited

Tense:
calm       excited

Valence

negative       positive

negative       positive
Six dimensions of the emotional UX

- Engagement
- Confidence
- Stress
- Trust
- Affect
- Frustration
Engagement

bored  apathetic  indifferent  motivated  excited

 Stranger Things
Season 1 Ep. 3 – Chapter Three: Holy, Jolly

An increasingly concerned Nancy looks for Barb and finds out what Jonathan’s been up to. Joyce is convinced Will is trying to talk to her.

Next Episode Playing in 5 seconds

Back to Browse  More Episodes
Stress

peace  calm  concern  nervous  tension  stress  panic

“"I was just trying to buy Beyoncé tickets.""
Affect

anger  sad  disappointed  neutral  content  happiness  joy
Frustration

delight        relief        annoyance        frustration        pain

Easy Check-Out

Interrupting the buying process to create an account
Trust

- distrust
- skeptical
- open
- trust
- blind faith

Hidden fees at checkout

Verifying news sources on social media
Confidence

lack of confidence  confident  highly confident

“What am I even buying?”

“How do I know if this is what I need?”

“This makes no sense”
Measuring the Emotional UX
Measuring the Emotional UX

Self-Report

Behavioral / Physiological
Microsoft’s Product Reaction Cards

www.uxforthemasses.com/product-reaction-cards
www.microsoft.com/usability/UEPostings/ProductReactionCards.doc
EMO (Emotional Metric Outcomes)

Standardized Questionnaires

James R. Lewis & Daniel K. Mayes, Development and Psychometric Evaluation of the Emotional Metric Outcomes (EMO) Questionnaire
**Example Likert Statements**

On a scale from 1 to 5, how much do you disagree or agree with the following statements:
1 = strongly disagree, 5= strongly agree

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Stress</th>
<th>Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>This &lt;system&gt; is fun to use</td>
<td>Using this &lt;system&gt; makes me stressed</td>
<td>This &lt;system&gt; makes me mad/angry</td>
</tr>
<tr>
<td>I would look forward to using this &lt;system&gt; in the future</td>
<td>I feel anxious (or nervous) when I use this &lt;system&gt;</td>
<td>I like using this &lt;system&gt;</td>
</tr>
<tr>
<td>I would rather use this &lt;system&gt; than &lt;other&gt;</td>
<td>This &lt;system&gt; has a calm or peaceful feel to it</td>
<td>Using this system brings me joy/happiness</td>
</tr>
<tr>
<td>I would want to use this &lt;system&gt; in my free-time</td>
<td>My tension increases when I use this &lt;system&gt;</td>
<td>When I am finished using this &lt;system&gt; I feel good</td>
</tr>
<tr>
<td>I am bored when I use this &lt;system&gt;</td>
<td>I feel relief when I use this &lt;system&gt;</td>
<td>I don’t like using this &lt;system&gt;</td>
</tr>
</tbody>
</table>
Example Likert Statements

On a scale from 1 to 5, how much do you disagree or agree with the following statements:
1 = strongly disagree, 5= strongly agree

<table>
<thead>
<tr>
<th>Frustration</th>
<th>Trust</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel frustrated when I use this &lt;system&gt;</td>
<td>I would feel comfortable sharing my personal information with this &lt;system&gt;</td>
<td>I feel confident when I use this &lt;system&gt;</td>
</tr>
<tr>
<td>This &lt;system&gt; is easy to use</td>
<td>I would feel comfortable giving my credit card to this &lt;system&gt;</td>
<td>I feel I am making the right choices when using this &lt;system&gt;</td>
</tr>
<tr>
<td>I feel annoyed when I use this &lt;system&gt;</td>
<td>I feel this company is trustworthy</td>
<td>I feel unsure about the terminology</td>
</tr>
<tr>
<td>I feel I am efficient when I use this &lt;system&gt;</td>
<td>I feel this company has my best interests in mind</td>
<td>I feel confident when I am looking for information</td>
</tr>
<tr>
<td>This &lt;system&gt; is delightful to use</td>
<td>This &lt;system&gt; is transparent, with nothing to hide</td>
<td>I feel I have to guess when I use this &lt;system&gt;</td>
</tr>
</tbody>
</table>
Emojis

www.premotool.com/about-premo/


www.lemtool.com
Net Emotional Value (NEV)

Average Positive Emotions
- delight
- relief
- happiness
- open
- confident
- trust
- motivated
- calm
- content
- confidence

Average Negative Emotions
- frustration
- skeptical
- lack of confidence
- tension
- bored
- disappointed

Measuring the Emotional UX

Self-Report

Behavioral / Physiological
Behavioral Observation

Naturalistic observation

Coding sheet
EDA and EEG

EDA (electrodermal activity sensor)

EEG instrument to measure electrical activity on the scalp
Heart Rate Variability / Pulse (BPM)
Affectiva’s Q-Sensor (EDA)
Facial Expressions

www.imotions.com/emotient/
Facial Expressions Demo
Eye Tracking
iMotions Demo

Starts at: 5:17
Get Started
## What do I use?

<table>
<thead>
<tr>
<th>Metric</th>
<th>Data Collection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>Self report, EDA, Eye Tracking, behavioral observation,</td>
</tr>
<tr>
<td>Stress</td>
<td>Self report, EDA, BP/HRV</td>
</tr>
<tr>
<td>Affect</td>
<td>Self report, facial expression analysis, behavioral observation</td>
</tr>
<tr>
<td>Frustration</td>
<td>Self report, behavioral observation</td>
</tr>
<tr>
<td>Trust</td>
<td>Self report, behavioral observation</td>
</tr>
<tr>
<td>Confidence</td>
<td>Self report, behavioral observation</td>
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</table>
Starter Questions

• What emotions are relevant?

• What methods/technologies can be used to collect data about the emotional UX?

• What will the data tell (and not tell) you?

• How will you use the data to inform design or product strategy?
Tips for Success

• Triangulate metrics to understand a single emotion
• Holistic approach to the emotional UX (many emotions)
• Approach data skeptically
• Validate with qualitative methods
• Measure impact and disseminate
THANK YOU

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