Is That Really Me?
A Case Study in Measuring Emotional Engagement of Customers using a Virtual Dressing Room in an e-Commerce Website

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Six dimensions of the emotional UX

- Engagement
- Confidence
- Trust
- Stress
- Joy
- Frustration

Emotional UX
Arousal

Happy:
- calm
- excited

Tense:
- calm
- excited

Valence

- negative
- positive

- negative
- positive
# Measuring Emotions

<table>
<thead>
<tr>
<th>Research Method / Technology</th>
<th>Emotion(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Report / Verbatim Analysis</td>
<td>All (trust, confidence, joy, frustration, stress, engagement, others)</td>
</tr>
<tr>
<td>Eye Tracking</td>
<td>Engagement (visual)</td>
</tr>
<tr>
<td>Facial Expressions</td>
<td>Joy, engagement, sadness, fear, anger, surprise, disgust, and contempt</td>
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<tr>
<td>GSR (Skin Conductance)</td>
<td>Stress (arousal w/o valence)</td>
</tr>
<tr>
<td>Behavioral Observation</td>
<td>Engagement, Stress</td>
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Emotions are fleeting
Highly contextual

“I wonder if there will be cameras in there?”

Reluctant Participant

Does not like feeling “under the microscope”

Just had a bad day at work
Weak signals

High Emotional Intensity

- 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

Low Emotional Intensity
Driven by content

"$1.3 million looks good to me, oh and the software looks great too."
Noisy Data

Plutchik’s Wheel of Emotions
Virtual Dressing Rooms

BODY MEASUREMENTS

Overall

Height

Hips

Waist

Bust

CANCEL  SAVE
Case Study
Goals

- Gain deeper insight into the emotional user experience
- Understand the value of biometric data, beyond traditional user research methods
- Develop best practices for collecting and analyzing biometric data
Method

- 3 virtual dressing rooms
- Scenario: Find a dress to wear for a friend’s wedding
- In-person sessions with 10 participants (female only)
- iMotions software (eye tracking, facial expressions, and GSR), and survey responses
Qualitative Findings: Verbatims

- Small preference for Metail
- No statistical significance
- Glamstorm had most negative comments
Qualitative Findings: Survey

- Overall low scores
- Metail had slightly higher scores
- No statistical significance between sites
Biometric Findings
Overall - Valence

Positive/Negative Emotions by Site

- GLAMSTORM: 10.7% Positive, 7.2% Negative
- METAIL: 4.1% Positive, 4.6% Negative
- VIRTUAL OUTFITS: 15.1% Positive, 6.8% Negative
Overall - Engagement/Attention

Engagement and Attention by Site

<table>
<thead>
<tr>
<th></th>
<th>Glamstorm</th>
<th>MeTail</th>
<th>Virtual Outfits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>29.6%</td>
<td>15.6%</td>
<td>34.3%</td>
</tr>
<tr>
<td>Attention</td>
<td>90.6%</td>
<td>61.6%</td>
<td>87.6%</td>
</tr>
</tbody>
</table>

% of Total Time
Overall - Joy

% Joy by Site

- Glamstorm: 11.1%
- MeTail: 4.0%
- Virtual Outfits: 15.1%
Disgust & Contempt
Segments

**Introduction**
- Engagement
- Attention

**Edit**
- Joy
- Disgust
- Engagement
- Attention

**Try**
- Contempt
- Engagement
- Attention

All metrics were significantly higher in Glamstorm and Virtual Outfits than Metail.
Edit Segment - Mix of Emotions
Eye Tracking
GSR (Galvanic Skin Response)

![GSR device on a hand and a computer mouse.]

**Average GSR Peaks/minute**

- **GLAMSTORM**: 5.1 peaks/minute
- **METAIL**: 5.1 peaks/minute
- **VIRTUAL OUTFITS**: 4.4 peaks/minute
Overall Findings

Qualitative Data
- No significant difference between the sites
  - Positive/negative comments
  - Survey responses
- Slight preference for Metail
- UX not great overall

Biometric Data
- Stronger emotional experience in Glamstorm and Virtual Outfits
  - Positive emotions
  - Attention
  - Engagement
  - Joy
  - Disgust

Why?
Moving Forward
Lessons Learned

• Minimal interaction with the participant - Use retrospective think-aloud (RTA)

• What does a smile really mean?

• Consistent context and control exposure time

• Still exploring the value of GSR

• Utilize other data sources - verbal expressions, survey data, etc.
Things to Consider

• What emotions are relevant for your organization?

• What methods/technologies will you use to collect data about the emotional UX?

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

• Use more than one metric to measure a single emotion

• Try to capture a variety of emotional metrics

• Don’t take too thin of a slice - look at broader experience

• Try to understand “why” behind the biometrics
THANK YOU

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