

L09: UX EVALUATION

When evaluating using a prototype,

1. work with the team, use proper techniques under suitable conditions OR,
2. Put the product in the field, visualize negative feedback and

MEASURABILITY OF USER EXPERIENCE

Usability or UX cannot be directly measured.

Observable user-performance based indicators are used.

Questionnaires with QFA related to user satisfaction can be used as well.

UX EVALUATION

AKA UX testing.

Focus on design improvements.

2 types of evaluation

1. Formative
2. Summative

1. Formative

Helps form the design.

Used in an iterative process to make improvements.

Done prior to production.

Primarily diagnostic

- Collect qualitative data
- Identify UX problems

Goal - Identify UX problems early in design + fix

Evaluation is done rapidly, less formal, less cost

- Inspections
- Walkthroughs

Risk of being mediocre (Good but not perfect)

2. Summative

Aids in summarizing the design.

Used to evaluate a shipped product against a benchmark.

Collect quantitative data, measure level of quality. Assess UX due to formative evaluation.

Goal - Assess quality of the interactive UX

Improvements to UX is done via re-design.

Done late into the life-cycle

Uses rigorous evaluation, more formal, planned.

- Data are prepared, collected, analysed and reported.
- Users are observed, qualitative and quantitative performance data are collected
- User performance is evaluated against UX goals

Types of evaluation data

- 1. Objective
 - Observed directly by the evaluator or participant
 - 2. Quantitative
 - Numeric data
 - User performance metrics
 - Opinion ratings
- Subjective
- Opinions and subjective feedback from users
- Qualitative

Collecting data

- 1. Direct measurement
 - Time to perform
 - No. of errors
- 2. CITO (Critical Incident Technique)
 - AKA critical incident observation
 - Participant elaborates on an incident with an action and outcome.
- 3. Think - a - cloud
 - Verbalize experience
- 4. Questionnaires
 - Subjective data post evaluation
- 5. SUS (System Usability Scale)
 - 10 item questionnaire with 1-5 scale

EMOTIONAL IMPACT

Measured indirectly through indicators.

Indicators

- Self-reporting verbally
- Facial expressions, body language etc.
- Bio-metrics

RAPID EVALUATION METHODS

Characteristics

- Find qualitative data
- Rarely find quantitative data
- Depend on practical techniques (Think-aloud)
- Less formal, fewer protocols, fewer rules
- Varied sessions. (Each session tailored to prevailing conditions)

Design Walkthroughs

- Specifically effective for early evaluation of design, before prototyping.

Goal - Explore design from user's view, but with expert guidance.

Requires

- Design representations
- Description of relevant users
- Scenarios

o. UX Inspections

An analytical evaluation method.

UX
Expert try out the design.

UX inspection covers usability characteristics, ^{emotional} impact factors and usability inspection.

AKA expert evaluation / expert inspection

HE (Heuristic Evaluation)

A method of UX inspection.

Few factors

1. Heuristics (Usability principles)

- Visibility of System status
- Match between the system and real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition
- Flexibility and efficiency
- Aesthetic
- Documentation

2. Procedure

- 3-5 evaluators
- Examine the interface
- Judge its compliance against the heuristics
- Each individual evaluator inspects each design.
- Combine findings, select most important, fix problems

brainstorm solutions, decide on recommendations for the design.

3. Reporting

- * Location of problem - Functionality tested, page
- * Name of function
- * Reason for reporting - Misuse / misuse
- * Scope - Issue is throughout the product? or specific screen
- * Severity (High / medium / low)
- * Reason for severity
- * Suggestions
- * Trade-offs

4. Functional Impact Inspection

Some process on UX inspection. Additional questions should be asked.

Common functional impact questions,

- * Usage fun?
- * Visual design attractive?
- * Convey branding of the organization? etc.

Can be done with UX inspection or separately till last step.

4 RITE (Rapid Iterative Testing and Evaluation)

Updates the prototype when an usability issue is found i.e. does not wait for full completion of the study.

Goal - Identify and solve usability issues fast.

Key difference - Prototype is altered during the study.

If 1-3 participants encounters the same issue "update prototype"

Process

- Identify participants and characteristics
- Assign tasks to participants
and must be
- Agree on critical tasks (Tasks that can be performed by user)
- Test Script
- Method of collecting data
- Recruit participant

5. Specialized rapid UX evaluation methods

- Alpha, beta testing and field surveys
- Remote UX evaluation
- Lab-based UX testing via online platforms
- Automatic UX evaluation
 - Measurements are acquired automatically

ANALYTICS AND EMPIRICAL METHODS

UX Analytics

Measurement and analysis of user activity.

Provides insights into adaptability of the design to meet needs of end users.

Quantitative and qualitative metrics.



What users do?

(Clicking a link)

Why?

(Why the user clicked it)

Benefits

Allow to test, confirm and develop design intuition via data.

Analyse user retention and conversions.

Optimize customer journey.

Redesign to maximize usability, accessibility

Rearrange to fit user's intentions

Types

- Descriptive - Baselines (No. of visits, clicks, views)
- Diagnostic - Same as descriptive but with a purpose (What and Why)
- Prescriptive - Informative data (What to do next based on data)
- Predictive - Predictions

Tools

- User flow maps - User journey
- funnel analytics - Conversion rates
- Heatmap - Interaction data
- Real time - Real-time user interactions
- Session recording - Individual sessions