User Experience Learning Methods
“Understanding & modeling how your users think”

Derek Larson
NoCoUX, Senior UX Researcher
You can’t solve bad UX with training...

It’s like trying to fix potholes by teaching drivers to go around them...
But it’s so easy...

It’s easy to use

Brew yourself a fresh and delicious cup of Melitta Gourmet Coffee or Cooper’s Specialty Tea.

It’s quick and easy!

1. Remove reservoir and fill with cold water.
2. Press centre button. Button will start blinking indicating that water is heating.
3. To open top, flip lid.
4. Remove pod from foil pouch and place the pod firmly in the tray.
5. Close the lid. Push in the latch and place your cup under the spout.
6. When centre button stops blinking, you are ready to brew. Press left hand button for 5oz European Style or right hand button for 8oz North American Style.

NOTE: When reservoir needs to be filled, centre button will begin blinking.
Before we get started, a little experiment...

Rate the best and worst Pizza ordering UX....

1. Take 1 green dot and 1 red dot from your table
2. Evaluate each of the 4 Pizza ordering websites
3. Place a green dot on the one you think will be the best ordering UX
4. Place a red dot on the one you think will be the worst ordering UX
5. Leave the others blank
First, A little bit about me…

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• NNg User Experience Master Certified
• HFI Certified User Experience Analyst
• HFI Certified Usability Analyst
• Scrum Alliance Certified Scrum Master
So why are we talking about this?

Two questions:

Why?......and HOW?!?
Why? To understand our customers...

…so we don’t create a ‘New Coke’

“The best advice I can give is to focus on people and their problems. Few great innovators worried about anything else.”

– Scott Berkun
How?

You’ll need a process….

and that’s what we’ll talk about today…

PLEASE, 'WINGING IT' IS NOT AN APPROVED NAVIGATIONAL METHOD.

THANK YOU FOR OBSERVING SAFETY REGULATIONS!
What we’ll cover...

1. What is UX (User Experience)?
2. Why does UX matter?
3. How is it done?
4. Gather data about your audience
5. Create models to guide your decisions
6. Test! – Experiment, Measure, Iterate
What we’ll cover...

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What’s the difference?

*Between….*

- The Product
- The User Interface
- Usability
- The User Experience
The Product...

The UI *(User Interface)*...
Usability...
The User Experience...
What is User Experience...

**User Experience is:**

- How easy a product is to learn?
- How easy it is to use?
- The value a user derives from the interaction

*For you business owners, it can also be thought of as:*

“The bridge between what you want users to do and the way they are most willing, or the most likely to do it.”
What UX champions on behalf of the user....

- **Navigation** – I can find my way around
- **Functionality** – I can do what I need to
- **Control** – I am in charge
- **Language** – I understand the terminology
- **Help & Support** – I can get help when I need it
- **Feedback** – I know what the system is doing
- **Consistency** – I don’t have to learn new tricks
- **Errors** – Mistakes are hard to make, easy to correct
- **Visual Clarity** – I can recognize things and the design is clear and appealing

Evaluation Quality Likert Scale

- Exemplary
- Good
- Adequate
- Poor
- Awful
- So bad it’s good in an ironic sort of way
- Beyond irony, approaching parody
- Our client’s greatest fear!
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Because people have different perspectives...

- How the customer explained it
- How the project leader understood it
- How the analyst designed it
- How the programmer wrote it
- How the business consultant described it
- How the project was documented
- What operations installed
- How the customer was billed
- How it was supported
- What the customer really needed
It’s not right/wrong, it’s perspective...

- A quick exercise – Create categories to organize these 6 items

- What if you are a Nutritionist, a Farmer, an Artist?
Why does UX matter?

Because this made sense to someone….

- Think of the worst application or website you have recently used – It made sense to someone.
- This met the project requirements – No one sets out to deliberately build a bad interface.
- You are not your customers – Here are famous last words in user experience.

“Here’s what I would do…”

No. You are not your users.
Because it isn’t a question about whether or not UX is necessary or affordable…user experience is inevitable

The alternative to good user experience is bad user experience, not no user experience at all
Let’s talk numbers…

https://www.youtube.com/watch?v=O94kYyzqvTc
UX pays for itself and them some!

<table>
<thead>
<tr>
<th>Metric</th>
<th>Average Improvement Across Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales / Conversion Rate</td>
<td>87%</td>
</tr>
<tr>
<td>Traffic Visitor Count</td>
<td>91%</td>
</tr>
<tr>
<td>User Performance / Productivity</td>
<td>112%</td>
</tr>
<tr>
<td>Use of Specific ( Desired) Features</td>
<td>174%</td>
</tr>
</tbody>
</table>

Every…

$1$ spent to resolve a problem during product design equals
$10$ spent on the same problem during development, and more than
$100$ if the problem had to be solved after the product’s release.

- Robert Pressman, A Practitioner’s Approach
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UX Methodology...

### HIGH LEVEL USER EXPERIENCE METHODOLOGY

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<th>Definition</th>
<th>Research</th>
<th>Modeling</th>
<th>Solutioning</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Stakeholder Interviews</td>
<td>• Contextual Interviews</td>
<td>• Personas</td>
<td>• Paper Prototyping</td>
<td>• A/B</td>
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<tr>
<td>o Project Objectives</td>
<td>• Ethnographic Studies</td>
<td>• Scenarios</td>
<td>• Low-Fidelity</td>
<td>• Tree Testing</td>
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<tr>
<td>o Success Criteria</td>
<td>• Focus Groups / Surveys</td>
<td>• Mental Model Diagram</td>
<td>• Wireframes</td>
<td>• Usability Testing</td>
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<tr>
<td>• Audience Matrices</td>
<td>• Analytics/Issue Logging</td>
<td>• Journey Maps</td>
<td>• UI layouts</td>
<td>• Moderated</td>
</tr>
<tr>
<td>• Audience Recruiting</td>
<td>• Card Sorting</td>
<td>• User Goal Matrix</td>
<td>• High-Fidelity</td>
<td>• Un-Moderated</td>
</tr>
<tr>
<td></td>
<td>• Heuristic/Cognitive</td>
<td>• Task-flow Diagrams</td>
<td>• Prototypes</td>
<td>• Remote</td>
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<td></td>
<td>• Participatory Design</td>
<td>• PET Diagrams</td>
<td>• Interactive Prototypes</td>
<td>• Guerilla</td>
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<td></td>
<td>• Baseline Usability Tests</td>
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### HIGH LEVEL DEVELOPMENT METHODOLOGY

- **Inception** (Requirements)
- **Elaboration** (Design)
- **Construction** (Implementation)
- **Transition** (Testing & release)
Definition: Why do Stakeholder Interviews?

**Stakeholder interviews define the success criteria!**

- What is it the Stakeholders want the users
  - To start doing?
  - To stop doing?
  - Do better?

- Quick Callback to the Process....
  
  Stakeholder interviews - define the success criteria
  User Contextual interviews - provide raw data
  Personas - summarize key motivators/obstacles
  Scenarios - set the stage for testing
  Testing - measures whether the success criteria are being met.
Definition: Outline your audience...

• Create an Audience Matrix
  o Spreadsheet with all key characteristics important to your business
  o Start with the basics, this is a living document (you can add more later)
  o List anything that might influence a customer
    ▪ Industry, Role, Performance, Location, Bandwidth, Device, Homeowner, Income...

[NoCoUX Customer Audience Matrix]

[Diagram of Audience Matrix]

NoCoUX Northern Colorado User Experience

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I can spot a UX problem at 100 yards...
Definition: Create a screener

- **A Screener**
  - List key requirements (e.g. time needed, characteristics)
  - Use your Audience Matrix for criteria!
  - Helpful whether you’re doing the recruiting or hiring someone to do it
Definition: Recruit your Customers

- **Guerilla Recruitment** (friends, family, people near you)
  - Not technically your customers, but good for general purpose checks
  - When you're looking to uncover the more obvious problems
  - Don’t over rely on guerilla recruitment
- **Existing Users**
  - Your CRM, website, social media, industry associations, popular blogs, and topic-specific online communities
  - Ask if they’d be interested in participating in a product/service interview
  - Incentivize them *(cash, gift cards, buy them a cup of coffee)*
- **Agencies**
  - UserTesting.com, Mechanical Turk, Research Now, Schlesinger Online, Ads on Craigslist, LinkedIn, Twitter
  - Plan on $20 - $75 per response
- **Market Research Recruiters**
  - Plaza Research, Entrust, Radius, others…
  - Plan on $250 to $1000 per participant
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Gather Data: Talk to your users

**Contextual Interviews**

- Try to conduct them at their workplace in their workspace
  - To understand the customer’s goals
    - What are they actually trying to do?
  - Work or activity flows
    - How do they really do it?
  - Attitudes and motivations
    - How do they honestly feel about it?
  - Current frustrations
    - What are their pain points?
  - Environmental factors
    - What really impacts them?
Gather Data: Contextual Interviews

**Structure of a Contextual Interview**

- **The "nurturing" phase – the initial warm-up**
  - Introductions & Environmentals (their job, title, location, # of people, etc.)

- **The "energizing" phase – the vision**
  - Define the strategic purpose/vision for their company/team
  - Who are their customers and how does your company serve them?

- **The "body" of the interview – the goals**
  - How would you describe this product/service?
  - How would you define success for the product/service?
  - What does success look? How will you when your project has been successful?

- **The "closing" phase – summary**
  - The interviewer should summarize and check for accuracy
    - The customer should be asked whether they thought the interview covered all the areas of concern, and whether there were issues they wish had been covered

Don’t forget to thank the person for their time!
Gather Data: Talk to them – Focus Groups

https://www.youtube.com/watch?v=b82Quinl7ac
Gather Data: Talk to them – Focus Groups

• Already have most of what you need
  o Re-use screener and Audience Matrix
  o Re-use many questions
    ▪ Be sure to cut the number of questions by 2/3
      (you won’t be able to ask all of them)

• Advantages of a Focus Group
  o Save time and money
  o Wider range of opinions
  o Direct interaction with a group of customers
  o Group dynamics can spur additional ideas
  o Great opportunity for hands-on interaction
    ▪ Bring products, visual aids/prompts and let the customers interact with them
Gather Data : Talk to them - Surveys

- **Full Surveys**
  - Wide-reach, great for customer preferences
  - Don’t get carried away, keep them short
    - Ask questions that address only your core needs and skip the subtleties. Surveys are not great at gauging minor differences anyway — you need direct observation for that
  - Consider asking different questions of different customers
  - SurveyMonkey, SurveyGizmo, Google Forms

- **Intercept Surveys**
  - “Short & Sweet,” Contextual, very specific
  - Cakemail.com, Qualtrics, SurveyGizmo

- **Post questions on Social Media**
  - Facebook, LinkedIn, Google+
  - Not just yours, but others
    (if you find online discussions on the same topic, you’ve struck gold)
Gather Data: Card Sorts

What’s Card Sort?:
Exactly what it sounds like, your users organize your website/application’s information into “buckets” that make sense to them and allow users to create category labels in language they readily understand.

It’s a user generated dendrogram (category tree).

Card Sorts answer:
- How would your users organize your website/application’s information?
- What reasoning lead them to their decisions?
- What nomenclature do they use?
- Are menu items or form field options grouped the way users expect?
- Is there anything you’ve forgotten?
Card Sorts: Preparation

• Recruiting participants
  o 4 Sessions
  o 4-6 participants
  o Get a good cross-section when possible
  o Plan for no-shows, cancellations

• Creating the cards
  o Short UNDERSTANDABLE labels
  o Careful not to lead participants, don’t include any categories
  o Usually about 40-70 cards
  o Length of time required increases faster than the number of cards
Running the Card Sorting Exercise

- Main job is just to observe & listen
- Encourage everyone to participate
- Remind folks how card sorting works
- Keep participants on tasks
- Take lots of notes!
Card Sorts: Analyzing the Results

- Look for patterns
  - Lay everything out or post on the wall to help see the patterns

- Areas of similarity & difference
  - Similarity obviously important
  - Differences can mean participants didn’t understand or that the content belongs in more than one place,
    - In-person card sorts will give you better insight

- % of similar results
  - From multiple card sorts
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Why are Models Important?

“Because we tend to design from our own experience—we end up designing for ourselves”

https://www.youtube.com/watch?v=dln9xDsmCoY
Create Models: Let’s do something with the data...

Create a touchstone to focus on the user...

- The solution? Personas.
  - A fictional person who represents a group of individuals having common characteristics
  - A persona provides detailed examples that represent specific customer types

- Why Personas?
  - Because we’re not talking to ourselves
  - To build understanding and empathy
  - Serve as a litmus test of potential strategies
Create Models: Let’s do something with the data…

Components of a good Persona:

- Name, Title, Picture
- Summary & Quote
  - How does this person do research, make purchases, approach the Internet, etc.
  - What does this person think about your type of services, web-based information, etc.
- Primary Goals
  - From the user’s perspective
- Characteristics
  - Behaviors and attitudes
- Pain Points

It’s important to be serious…
Name:
- Peyton Manning
- Danica Patrick
- Diana Prince
Primary Goals:
- To rule the world!
- To become a Jedi
- To blow up the moon with a giant “L-A-S-E-R!”
The can be more complex...

Jill Anderson

Bio
Jill is a Regional Director who travels 4-8 times each month for work. She has a specific region in which she travels, and she often visits the same cities and stays in the same hotel. She is frustrated by the fact that no matter how frequently she takes similar trips, she spends hours of her day booking travel. She expects her travel solutions to be as organized as she is.

Goals
- To spend less time booking travel
- To maximize her loyalty points and rewards
- To narrow her options when it comes to shop

Frustrations
- Too much time spent booking - she's busy!
- Too many websites visited per trip
- Not terribly tech savvy - doesn't like the process

Motivations
- Price
- Comfort
- Convenience
- Speed
- Preferences
- Loyalties/Rewards

Brands
- KAYAK
- Basecamp
- Outlook
- Enterprise
- IHG

Technology
- IT & Internet
- Software
- Mobile Apps
- Social Networks
Financial Manager
Jane

“This seems like a needless and very expensive step in the process. We know our users and can save time and money by telling the designers ourselves what they want.”

Jane is financial business manager who doesn’t believe that usability is going to save her money in the long run. Because she has build her career on finding ways to cut budgets and save money she sees her role as cutting the “fat” out of the budget. Numbers talk. She is data driven and always looks for numbers to drive her decisions. In the absence of data she will err on the side of cutting the budget.

Characteristics
• Logical — thinks sequentially
• Rational
• Analytical
• Objective
• Breaks things down to their basic parts

Primary goals
• Bring the project in on budget
• Bring the project in on time
• Demonstrate success to her boss

Pain Points
• Staff complaints
• Inefficiencies in collaborating across departments
• Lack of independence — dependence on IT
Team Manager
Michael Scott

“It's how I like to do business, everybody joking around. It’s like friends. I am Chandler, and Joey…and Pam is Rachel. And Dwight is Kramer.”

Michael wants to upload his favorite vacation photos. We wants to be the center of attention and make everyone laugh. Consequently, not all of the photos he would like to upload are appropriate for the work environment. Michael would like to add his hilarious descriptions and create an album or two. He would also like to be able to make his albums private so Toby (the HR manager) can’t view them, but still be able to send invites to view the albums to his ‘bros’ in the office. Finally, Michael would like to sign up to be notified if any “hilarious” photos are uploaded, photos with tags like ‘pie-in-face’ or ‘cat-playing-piano.’

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Primary goals</th>
<th>Pain Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimal skill set</td>
<td>• Be the center of attention</td>
<td>• Complicated user interface</td>
</tr>
<tr>
<td>• Extroverted</td>
<td>• Team building</td>
<td>• Lack of autonomy</td>
</tr>
<tr>
<td>• Emotional</td>
<td>• Sharing information</td>
<td>• Difficulty uploading photos</td>
</tr>
<tr>
<td>• Friendly</td>
<td>• Promoting his team’s work</td>
<td>• Restrictive rules</td>
</tr>
<tr>
<td>• Creative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor judgment</td>
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Test your card sort, navigation, IA

Tree Testing
- Quantitative remote method (30-100 users)
- Measures findability of elements within an existing and/or proposed IA
- No visual interface
- Identifies issues with naming, grouping, and hierarchy
- Can enter any Navigation or IA you wish – even a competitor’s 😊

Recruiting:
- Recruit users form your site using an intercept survey
- Recruit via panel resources like CINT, Op4g, Toluna
- Determine how many people you need:
- http://www.measuringusability.com/blog/tree-testing-ia.php
Testing: Use your objectives….

- Use your objectives from the Stakeholder Interviews
  - They should be: Easy to do, Understandable, Manageable and Beneficial
  - Companies often fail when their objectives are complicated and difficult to measure, so keep it simple
- Customers do X –
  - Sign-up for Promotions, Register, Contact for More Info
- Increase Y –
  - Increase click-through rates, Sales, Referrals
- Reduce Z –
  - Reduce abandonment rate, Errors
A/B Testing (a.k.a. Split Testing)

- Comparison testing between two (or more) different versions of something
- It can measure very small performance differences
- It can resolve trade-offs by determining which one carries the most weight under the circumstances
- It's cheap and easy
- Just don’t try and build an experience with it!
Incorporate & Iterate (do it again)…

• Incorporate
  o Apply what you’ve learned into all your customer touchpoints.
  o You can’t fix everything, but it’s about progress, not perfection

• Iterate
  o Keep your models up to date with periodic research & testing
  o Don’t assume people stay the same or there’s not more to learn
  o Test early and test often
  o If you’re in business, it’s never a waste of time to be talking to your customers
Questions and Discussion...

and a few of my favorite UX failures
Card Sort Exercise - Let’s get started!

☑ Open your table’s stack of cards
☑ Distribute groups of cards if you wish
☑ Read through a few to get an idea of the content
☑ When ready start organizing
☑ Talk to your group, try to come to a consensus
☑ Use blank cards to create categories and sub-categories
☑ There are no right answers, just what makes the most sense to you
Thank you.
UX Maxims...

- You are not your user.
- To the user, the interface *is* the application.
- If a user can’t find it, it doesn’t exist.
- Don't expect training to make a user into an expert.
- You can’t solve bad UX with training, it’s like solving potholes by teaching user to drive around them.