

# Human-Computer Interaction

## Understanding your user and their needs

ThS. Trần Thị Thanh Nga

Khoa CNTT, Trường ĐH Nông Lâm TP HCM

Email: [ngattt@hcmuaf.edu.vn](mailto:ngattt@hcmuaf.edu.vn)

# Agenda

- **Introduction**
- **Personas: Your Imaginary Best Friends**
  - Tips for creating people out of thin air
  - Real data about make-believe people
- **User Scenarios: Simulations for Better UI**
  - Tips for creating user scenarios
  - Real example of user scenario
- **Prioritizing Top Tasks**
- **Plunging Ahead with a Plan**

# Introduction



# Introduction

- You know how UI and UX are interwoven
- Look at the **why** behind the **how**.
  - **Who** are your users?
  - **What** are their *motivations, fears, and aspirations*?
  - **What** *goals* do they want to accomplish on your website?

# Introduction

- **User interfaces** require *visual hierarchies*
- **Visual hierarchies** must stem from *user requirements*.
- Look at:
  - how to create **user personas**,
  - how to incorporate personas into **user scenarios**,
  - how to prioritize requirements for your interface.

# Agenda

- **Personas: Your Imaginary Best Friends**
  - Tips for creating people out of thin air
  - Real data about make-believe people
- **User Scenarios: Simulations for Better UI**
  - Tips for creating user scenarios
  - Real example of user scenario
- **Prioritizing Top Tasks**
- **Plunging Ahead with a Plan**

# Personas: Your Imaginary Best Friends

- Personas are fictional representations of your target user base.
- Imagine **the kinds of** people who will visit your site, and then **detail** their personalities → you can **predict** and **anticipate** their behavior.

# 1. TIPS FOR CREATING PEOPLE OUT OF THIN AIR

- How detailed should you get? As detailed as possible
- **Justin Smith, UX Architect for Cartoon Network:**
  - Adding enough details so that you can understand a the user's *mindset, desires*, and the *tasks* they will perform.
  - Your website will have two audiences:
    - the core audience (the one your website can't do without)
    - and the fringe audience (everyone else).
  - If you're strapped for time and resources, you should focus your personas on just the core audience — but the goal is to cover both if possible




# Creating a persona

- **Give the persona a name:**
  - **Choose whatever name you like**, but make it real so the person feels real. The name can also be labeled by behavioral segment. Example: “Sam the Searcher”.
- **Identify the job, role, and company** - Surveys can be very helpful for capturing this data.
  - For example: a large percentage of users are small business owners → create a specific “SMB” persona
- **Include vivid information**
  - *Age, gender, and device usage* are important,
  - Also **psychology**.
    - What are their fears and aspirations?
    - You can use metrics tools for demographics and educated guesses for psychographics

# Important!!!

- Your personas are based on **actual research**.
- **Jared Spool**, founder of *User Interface Engineering* and popular *UI speaker*
  - Don't make up personas only from demographic and psychographic data.
  - Focus primarily on your target audience's behaviors.
  - The more people you visit, the more likely your personas will reflect real audiences and produce the great design insights you seek

PERSONA - JERRY THE SPEED DEMON [Go back to New project](#)



JERRY THE SPEED DEMON

*"I have a need...a need for speed."  
"Speed limits are guidelines, not rules."  
"HP over MPG all day, every day."*

Demographics:


- 25 years old
- Asian American
- Experienced driver
- College graduate
- Marketing Strategist

# Building out your personas

- Conducting segmented interviews
  - inject tons of real-world data into your personas by interviewing *existing customers, prospects, and referrals*.
- To keep it simple you can use:
  - a persona template
  - a more integrated method like UXPin
    - allows you to attach personas to your website's wireframes and prototypes

# Example for visual persona

## Jill Anderson



"I'm looking for a site that will simplify the planning of my business trips."

**AGE** 29  
**OCCUPATION** Regional Director  
**STATUS** Single  
**LOCATION** Portsmouth, NH  
**TIER** Frequent Traveler  
**ARCHETYPE** The Planner

Organized Practical  
Protective Hardworking

### 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.

### Personality

Extrovert Introvert  
Sensing Intuition  
Thinking Feeling  
Judging Perceiving

### Brands

KAYAK Basecamp  
Outlook  
enterprise IHG

### 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 saavy - doesn't like the process

### Motivations

Price  
Comfort  
Convenience  
Speed  
Preferences  
Loyalties/Rewards

### Technology

IT & Internet  
Software  
Mobile Apps  
Social Networks

# Agenda

- Personas: Your Imaginary Best Friends
  - Tips for creating people out of thin air
  - **Real data about make-believe people**
- User Scenarios: Simulations for Better UI
  - Tips for creating user scenarios
  - Real example of user scenario
- Prioritizing Top Tasks
- Plunging Ahead with a Plan

## 2. REAL DATA ABOUT MAKE-BELIEVE PEOPLE

- In 2005, **Ursula Dantin** of *the University of Auckland in New Zealand* conducted a study to prove the effectiveness of creating and using personas in UI design.
  - She examined a sample of two small education-based software systems:
    - **Cecil**, a custom-designed enterprise learning management system developed and used by her school;
    - **Turnitin.com**, a website that many consider the standard in online plagiarism detection due to its use by thousands of institutions in over 50 countries
- personas helped the design process!!!

# Agenda

- Personas: Your Imaginary Best Friends
  - Tips for creating people out of thin air
  - Real data about make-believe people
- **User Scenarios: Simulations for Better UI**
  - Tips for creating user scenarios
  - Real example of user scenario
- Prioritizing Top Tasks
- Plunging Ahead with a Plan

# User Scenarios: Simulations for Better UI

- After researching and creating a *group of personas* based on the target users, one of the best ways to *connect mindset to action* is by creating **user scenarios**.
- **User scenarios** are thought exercises where you *map out* the actions of each persona from the *first point* of interaction with your website to *when they complete* a goal.



Persona: Jeanne is 27 years old student with a casual taste that prefers to shop online to save time and get more varieties.

Goal: Buy a unique present for her friend that is affordable in price

User task 1:  
Access the website URL

User task 2:  
Search for the the present to buy

User task 3:  
Select a present

User task 4:  
Check the product details

User task 5:  
Check out and pay for the product

- How did she know about the website?
- What is the keywords did she used to find the website on Google

- Is the categories clear and easy to find
- Does she look for suggestions?

- How does she select the product?
- Which value does influence here the most?

- What information does she look for?
- How does she preview the product?

- What is the payment method used?
- How does she handle the shipping?

Can we reach here through social media too?

We need to focus on the search keywords to become more visible

Can we offer suggestions and offers while she search for products

Can we offer related products and offers here?

We can add the most important information for here at the top of the page

We can offer free shipping  
Also we can offer one-click buy option

# User Scenarios

- If your personas *cannot achieve their goals* or if the process is too *convoluted* → have a visual representation of your problem → go back and solve it easily.
- **User scenarios** are one of the **best way** to test your *site structure* because they isolate problems before they become problems and also help you think of ways to improve your structure.
- With personas: the **more actual research** and **less guesswork**, the **better**.

# Agenda

- Personas: Your Imaginary Best Friends
  - Tips for creating people out of thin air
  - Real data about make-believe people
- User Scenarios: Simulations for Better UI
  - **Tips for creating user scenarios**
  - Real example of user scenario
- Prioritizing Top Tasks
- Plunging Ahead with a Plan

# Tips for creating user scenarios

- Create realistic goals for your personas
- When it comes to user scenarios, there are three main categories:
  - goal-based scenarios,
  - elaborated scenarios,
  - full task scenarios.
- Each **user scenario** starts with a *user story*, structured as:
  - “As a [role], [the persona] wants to [complete this action] so they can [fulfill this goal]”. A user scenario will then expand upon user stories by including details about how your system could be interpreted, experienced, and used.

# When creating user scenarios, consider:

- **The persona's environment**
  - *Where* are they *when* they interact with your web site?
  - Are they at work? At a coffee shop? Or at home?
- **Any factors that impact the context of use**
  - How fast and stable is their *Internet connection*?
  - How much *time* do they have? What *distractions* are there?
- **Triggering events & goals**
  - What specific goal motivates the persona to interact with the web site on this occasion? What event triggered this scenario?
- **Persona behavior:** Visualize the scene.
  - What considerations are most important in the persona's mind?
  - What clues are they looking for in particular?

# Agenda

- Personas: Your Imaginary Best Friends
  - Tips for creating people out of thin air
  - Real data about make-believe people
- User Scenarios: Simulations for Better UI
  - Tips for creating user scenarios
  - **Real example of user scenario**
- Prioritizing Top Tasks
- Plunging Ahead with a Plan

# Real example of user scenario

- User scenarios provide the ‘**why**’ behind the ‘**who**’.
- The hypothetical user story could be that “As a local art event organizer, Harriet needs to find a great film for her December event so that the event sells out and her boss loves her”
- The user scenario flow chart, Harriet *makes her entry* on the **Homepage** and *conducts a search*. After exploring some options, she *finds a film* that interests her, but only *after viewing* a clip. She then *reads some details* about the film, including reviews from both LUX and other searchers, plus *bookmarks the artist* for later screenings. Finally she *puts the film* in her basket and *hires the artist* during checkout. She has successfully completed **her goal** of finding a film.

# Agenda

- Personas: Your Imaginary Best Friends
  - Tips for creating people out of thin air
  - Real data about make-believe people
- User Scenarios: Simulations for Better UI
  - Tips for creating user scenarios
  - Real example of user scenario
- **Prioritizing Top Tasks**
- Plunging Ahead with a Plan



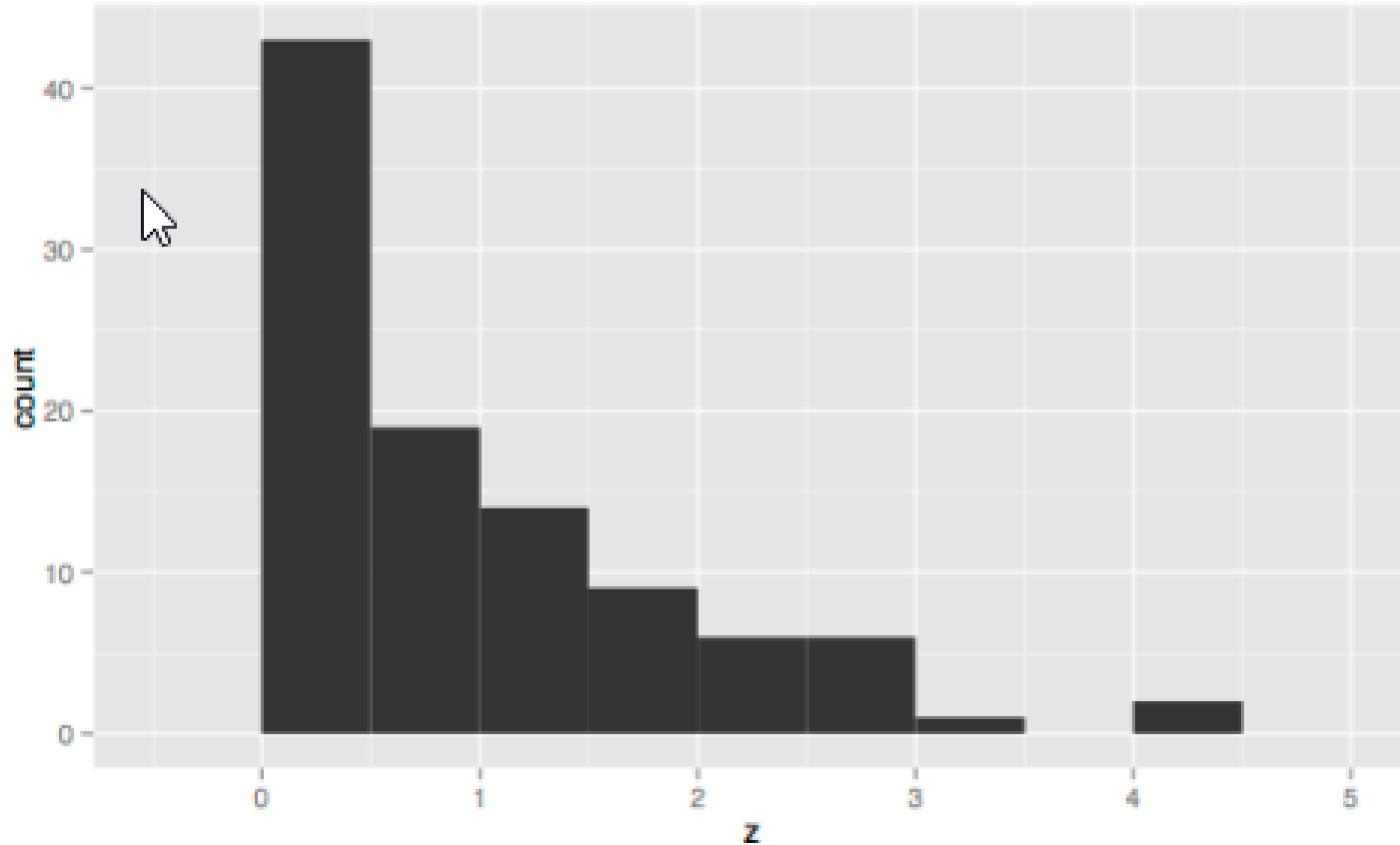
# Prioritizing Top Tasks: Have Others Do It For You

- You know:
  - who you're writing for
  - how they'll react to your website,
  - those are the top two priorities.
- It's time to determine **how** you should *prioritize* the features of your interface in response to the user scenarios you've created

# Prioritizing Top Tasks: Have Others Do It For You

- **Jeff Sauro**, *founder of Measuring Usability LLC*, explains how to handle the multitude of tasks every designer has on their to-do pile .
  - **List the tasks**
    - Identify features, content, and functionality that need to be addressed, and list them in the users' language, avoiding technical jargon.
    - Present them in a randomized order to representative users you think might be interested in your site.
  - **Ask the users to pick five**
    - You have a lot of the tasks, but the user will skim the list for keywords, and notate the ones important to them
  - **Graph and analyze:** Count up the votes and divide by the number of users

# Prioritizing Top Tasks: Have Others Do It For You



# Prioritizing Top Tasks: Have Others Do It For You

- You know what your top priorities should be, AND you have them verified by your users.
- Sauro explains in another article how this long neck organization of problems coincides with the Pareto principle (the 80-20 rule)
  - 80% of the country's wealth and land was owned by 20% of the people
- As it turns out, many things follow the Pareto principle, more-or-less:
  - 68% of U.S. taxes are paid by the top 20%.
  - 90% of wireless bandwidth is consumed by 10% of the cell phone users.
  - **Microsoft** noted that by fixing the top 20% of the most reported bugs, 80% of the errors and crashes would be eliminated.
- Addressing the **top tasks** in your long neck graph first, you'll end up taking care of most of the problems quickly.

# Agenda

- Personas: Your Imaginary Best Friends
  - Tips for creating people out of thin air
  - Real data about make-believe people
- User Scenarios: Simulations for Better UI
  - Tips for creating user scenarios
  - Real example of user scenario
- Prioritizing Top Tasks
- **Plunging Ahead with a Plan**

# Plunging Ahead with a Plan

- You have your personas on hand for reference:
  - how they'd theoretically react to the site,
  - what tasks must be accomplishable by the interface.
- You are a designer with a plan, and all that's left is to put that **plan into action**.

# Bài tập lab2

- Bài tập cá nhân:
  - (1) Tạo ra một user scenario
  - (2) Chọn 1 bước trong user scenario để thiết kế 1 form giao diện Web trên Photoshop (hoặc bất cứ công cụ nào) → tạo ra file html tương ứng của thiết kế này.
  - Upload lên Azure: trong file html có chèn hình ảnh của user scenario ở (1) và đường dẫn của file thiết kế ở (2).
- Bài tập nhóm:
  - Tiếp tục cập nhật Group Diary cho tuần này, phân công công việc cho từng thành viên.
  - Tạo trang About có ghi thông tin về các thành viên (mã SV, Họ tên, Lớp, Sở thích,...) → cần trình bày sao cho đẹp
  - Upload lên Azure





# Reference

- **Web UI design best practices, Dominik Pacholczyk**