#### **Empathy-Driven Design:** Design Thinking for Accessibility

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# **Day Dreaming**

Have you ever thought about what it would be like to be a famous celebrity? On the other hand, have you ever thought about being homeless or living your life in a wheelchair?

## Understanding

#### **Empathy:**

The action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another of either the past or present without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner.

(Merriam-webster.com)

### Understanding

# **Empathic design:**

"...the process of developing an understanding of users, not just their overt needs, but of their constraints, practices, problem-solving approaches, contexts, and the interrelations between people as a whole."

(Six, 2012) (uxmatters.com)

# **Objectives**

## **Empathy aims:**

- 1. To increase open-mindedness
- 2. To reduce bias
- 3. To collaborate with research participants
- 4. To accept what you see and hear

#### (Six, 2012) (uxmatters.com)

#### Process

## Empathic design process:

- 1. Observation (human behavior)
- 2. Capturing Data (various research methods)
- 3. Reflection and Analysis (insights on needs)
- 4. Brainstorming for Solutions (ideation)
- 5. Developing Prototypes (clarification)

#### (Leonard & Rayport, 1997)

# Observation Accounting Schemes - A (x 4) - POEMS - AEIOU

Actors<br/>People<br/>UsersArtifacts<br/>ObjectsAtmosphere<br/>EnvironmentActivitiesInteractionsMessagesServices

Motivations (why is the person / group doing this...) Relationships (between people, objects, spaces)

Values (belief systems) D

Dissatisfiers (unfulfilled needs)

**Opportunities** (actionable items/areas)

**Events** (specific to situations)

**Methods** (specific to situations)

Strategies (specific to situations)

Diagram provided by: Matthew Krise, PhD

# Design Thinking Method: A (x 4) (Accounting Scheme)

(Anderson & Rothstein, 2004)

# A (x 4)

# Accounting Scheme: A method used to organize and analyze information about a given problem or situation.





#### Actors: Think about who the people are and there needs or issues.



## Activities: Think about what the actors do and how they do it.



#### Artifacts: Think about what things or devices will enable the actors to achieve their desired activities.



# Atmosphere: Think about the emotional as well as physical experience.

## Gaining Accessibility Through Empathy-Driven Design

Observation Capturing Data A (x 4) Design Thinking Method Reflecting and Analyzing Brainstorming Prototyping

#### **More Accessible Solutions**

#### A x (4) Application Example

#### **Topic: Shower Booth Accessibility**



Actors

#### Activities

Artifacts

Atmosphere

"How might we design a more accessible shower booth for a single family home with an extended family?"

# A (x 4)



#### Actors

1 • -----2 • -----3 • -----4 • -----5 • -----6 • -----7 • -----8 • -----9 • -----10• -----11• -----12• -----



Activities





#### Artifacts

Atmosphere

"How might we design a more accessible shower booth for a single family home with an extended family?"

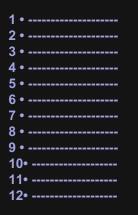
#### **Actors:**

#### Think of ALL the human and non-human actors that might be involved with the shower booth.

# A (x 4)



Actors





Activities

1 • -----

2 • -----

3 • -----

4 • -----

5 • -----

7 • -----

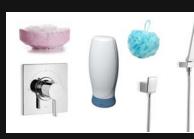
8 • -----

9 • -----

10• -----

11• -----

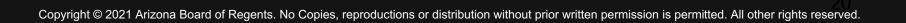
12• -----





#### Artifacts

Atmosphere



"How might we design a more accessible shower booth for a single family home with an extended family?"

#### **Activities:**

# Think of ALL the possible activities that goes on in the shower booth.

# A (x 4)



Actors





Activities

1 • -----

2 • -----

3 • -----

4 • -----

5 • -----

7 • -----

8 • -----

9 • -----

10• -----

11• -----

12• -----





Artifacts

1 •
2 •
3 •
4 •
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11•
12.

Atmosphere

"How might we design a more accessible shower booth for a single family home with an extended family?"

#### **Artifacts:**

# Think of ALL the things or devices that exist or could exist in the shower booth.

# A (x 4)



Actors





**Activities** 

1 • -----

2 • -----

3 • -----

4 • -----

5 • -----

6 • -----

7 • -----

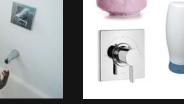
8 • -----

9 • -----

10• -----

11• -----

12• -----



#### Artifacts





#### **Atmosphere**



"How might we design a more accessible shower booth for a single family home with an extended family?"

**Atmosphere:** 

Think of ALL the possible emotional as well as physical experiences that occur or could occur in the shower booth. "How might we design a more accessible shower booth for a single family home with an extended family?"

#### **Empathy-Driven Design Ideas:**

Think about the Actors and what Artifacts would enable their desired Activities and what Atmosphere could be designed to create and facilitate more accessible solutions for all.

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