Key questions

1 What is design thinking?

2 How do you do design thinking?

3 Where can you begin?

INNOVATE@UCLA

Gartner®

"Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology and the requirement of business success."

Tim Brown,
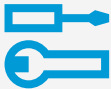British Industrial Designer & President of IDEO

INNOVATE@UCLA

Gartner.

Design thinking integrates people, technology and business

Human Desirability
What do people want?

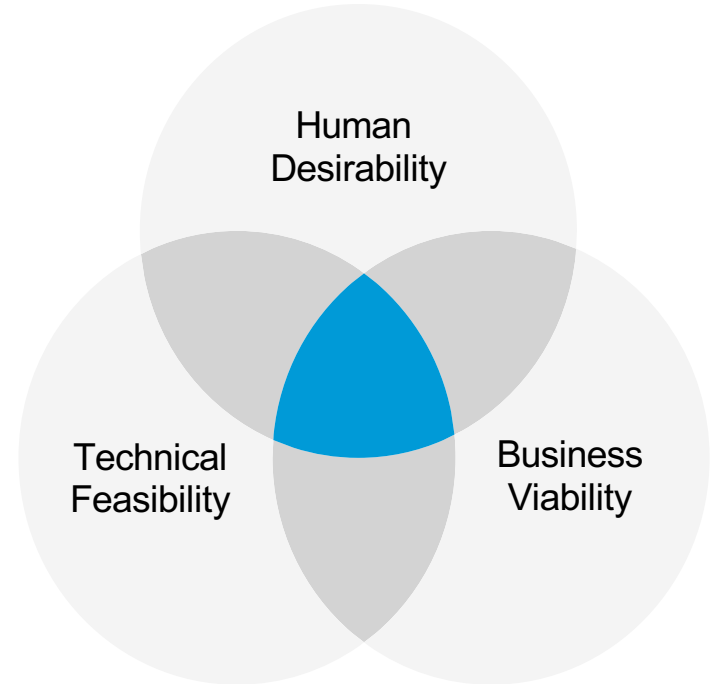**Technical Feasibility**
What is technically or organizationally possible?

Business Viability
What is financially doable?

Human Desirability

Technical Feasibility

Business Viability

INNOVATE@UCLA

Gartner.

Capturing tacit knowledge

Most people can verbally explain only about 20% of what they need to do their jobs.

Design thinking uses

- Observation

- Interviewing

- Shadowing

to understand what the customer really needs.

Explicit Knowledge

Tacit Knowledge

INNOVATE@UCLA

Gartner.

Design thinking has a simple premise

If I focus on people		Observe them in context		I can find what they need

Behaviors
what are they doing?

Motivation
why are they doing it?

Outcomes
what are they trying to achieve?

Ecosystem
what is the network of relationships?

INNOVATE@UCLA

Gartner.

Design thinking is based on six mindsets

Empathy
Only through empathy with people can you design solutions for them.

Show, Don't Tell
To bring your ideas to life, show instead of telling.

Experiment
Make your ideas real and learn from peoples' reactions to your prototype.

Be Mindful of Process
Be mindful of process, and know where you are in it.

Action-oriented
Thinking is important, but doing even more so.

Collaboration
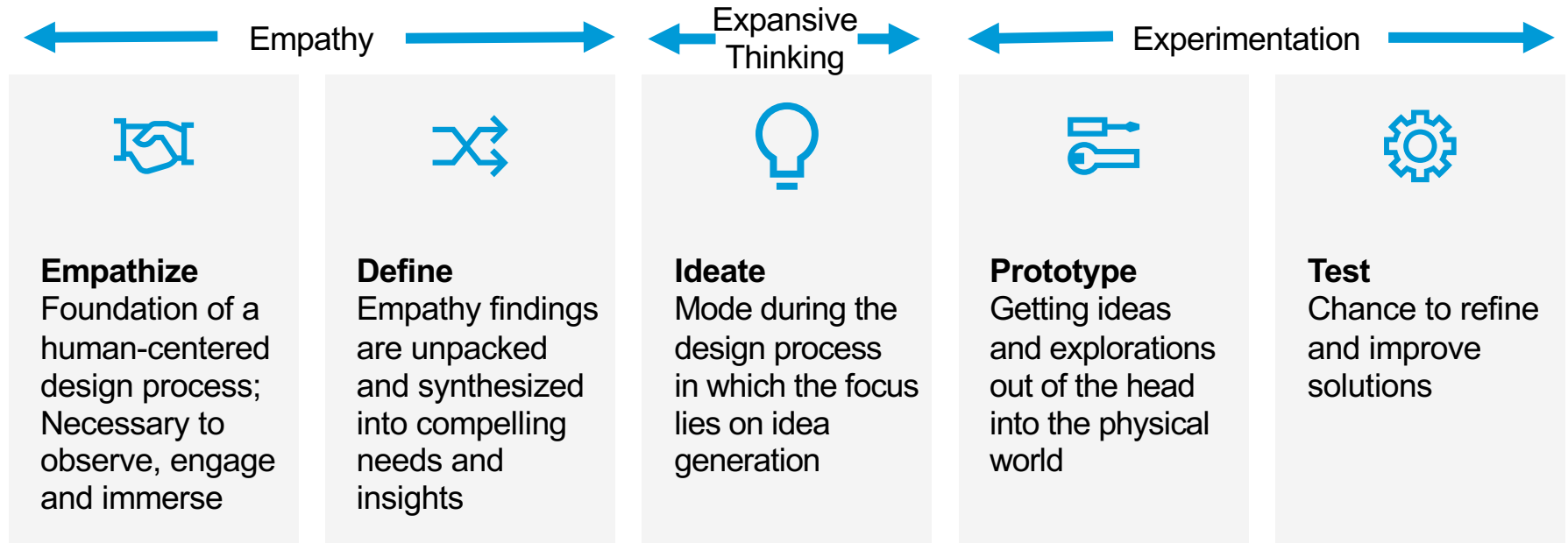Bring together innovators with varied viewpoints and backgrounds.

INNOVATE@UCLA

Gartner.

Key questions

1 What is design thinking?

2 How do you do design thinking?

3 Where can you begin?

INNOVATE@UCLA

Gartner

Design thinking has five stages

← Empathy →   ← Expansive Thinking →   ← Experimentation →

Empathize
Foundation of a human-centered design process; Necessary to observe, engage and immerse

Define
Empathy findings are unpacked and synthesized into compelling needs and insights

Ideate
Mode during the design process in which the focus lies on idea generation

Prototype
Getting ideas and explorations out of the head into the physical world

Test
Chance to refine and improve solutions

INNOVATE@UCLA   **Gartner**

Stage 1: Empathize

Empathize
Foundation of a human-centered design process; Necessary to observe, engage and immerse

Define
Empathy findings are unpacked and synthesized into compelling needs and insights

Ideate
Mode during the design process in which the focus lies on idea generation

Prototype
Getting ideas and explorations out of the head into the physical world

Test
Chance to refine and improve solutions

INNOVATE@UCLA

Gartner

Interviews

- Ask why

- Encourage stories

- Look for inconsistencies

- Pay attention to nonverbal cues

- Don't be afraid of silence

- Don't suggest answers to your questions

- Ask questions neutrally

- Don't ask binary questions

?

Who is your customer?
Be sure you consider the "persona" in selecting your interview candidates.

INNOVATE@UCLA

Gartner.

Observations

- What are your customers **actually** doing?

- What **routines** do they have?

- How are they **integrating** it into their lives?

- Capture **details**.

- Look at how it is used in **context**.

- Don't be afraid to get **quantitative**.

? Don't just select one context. If possible, observe your customers in multiple situations.

INNOVATE@UCLA

Gartner.

Now, create a persona

Include a photo

My biggest challenges

Define Context

Development Focus			
Internal	▲		External

Time frame			
Immediate	▲		Long-term/Strategic

Scale			
Incremental		▲	Radical

Technical Autonomy			
Need Support		▲	Works Independently

Make up a name

Brief Bio; maybe a quote

Background and Experience Level

My Responsibilities

Tools/Information I Need

How I am Evaluated
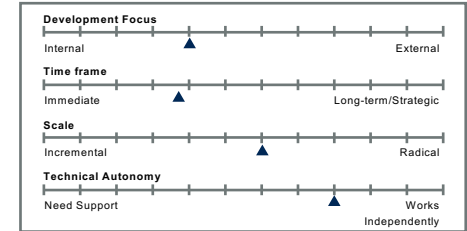
- Based on data gleaned through research
- Represents a stakeholder/customer group
- Enables a shared understanding of the group

INNOVATE@UCLA

Gartner

Average Airlines' Customer Persona

Name:

EMILY

Rol

Mother, wife, daughter, friend, successful professional

Age: 35

Job: Operations Manager, utility company

Education: Bachelor's, Master's degrees

Gender: Female

Travel Preferences

Quote(s):

"I feel like I'm constantly running short of time, energy and sleep."

Traveling For:

Business

Common Destinations

In-country

Luggage:

Carry-on only

Tools/Products/Services Used:

iPhone, laptop, several apps, Uber

Traveling by herself/with others?

By herself

Facility With Technology:

High

INNOVATE@UCLA

Gartner

Customer Journey Map:
Capture the Steps in the Customer Experience

What is Emily doing?	Arrives at the Gate	Finds a Seat	Lines up and shows boarding pass	Enters plane and finds seat	Stows Overhead luggage	Settles into her seat
What is Emily **expecting?**	There will be a crowd of people	There may be a seat left for her	I will need to have my boarding pass ready	Empty seat assigned to her with storage above	Room for my rollerbag above my assigned seat	Space for hand bag, clean seat, power for her tech
What is Emily **thinking?**	I hope everyone has a mask	It is so crowded – maybe it would be better to stand	Will I have to hand my device to the agent?	The person sitting next to me is not wearing a mask	I don't think there's room for my bag.	I'm glad the power outlet works.
What is Emily **feeling?**						
With which **touchpoints** is Emily interacting?	Seating Gate Agent Schedule monitors	Seating Power Outlets	Gate Agent Scanner	Flight Attendant Jetway Aisle Seat	Overhead container Other peoples luggage	Seatbelt Seatback and Tray table Armrest

INNOVATE@UCLA

Gartner

Activity: Get the Feeling!

Exercise #1

Here is a journey map of Emily's boarding experience

Exercise Instructions: Based on your understanding of Emily, review the journey map. For each cell in the "feeling" row, write down some possible feelings she may have, based on the other information.

Discuss: Share the feelings you identified as a group. If you were going to address the boarding experience, where would you focus your effort?

Stage 2: Define

Empathize
Foundation of a human-centered design process; Necessary to observe, engage and immerse

Define
Empathy findings are unpacked and synthesized into compelling needs and insights

Ideate
Mode during the design process in which the focus lies on idea generation

Prototype
Getting ideas and explorations out of the head into the physical world

**Test**
Chance to refine and improve solutions

INNOVATE@UCLA

Gartner

Write a problem statement

- What's the problem that your insights have uncovered?

- Describe the ideal state (should)

- Explain the problem (because)

- Explain the cost (as a result)

As a busy executive and mom, Emily deserves a quick and stress-free boarding experience. She has work to do, and wants to use her time wisely, to reserve her energy for her family. A complicated boarding experience leaves her feeling tired and anxious, and results in an unpleasant and unproductive flight

INNOVATE@UCLA   **Gartner**

Now, "How Might We...?"

- Taking the ideal state in mind, consider multiple options for achieving that state.

  – How might we…

  – *…reduce the amount of carry-on luggage brought on board?*

  – *…increase the size of the overhead bins?*

  – *…provide dedicated overhead bins?*

  – *…reposition the carry-on storage spaces?*

  And so on.

INNOVATE@UCLA   **Gartner**

Stage 3: Ideas!

Empathize
Foundation of a human-centered design process; Necessary to observe, engage and immerse

Define
Empathy findings are unpacked and synthesized into compelling needs and insights

Ideate
Mode during the design process in which the focus lies on idea generation

Prototype
Getting ideas and explorations out of the head into the physical world

Test
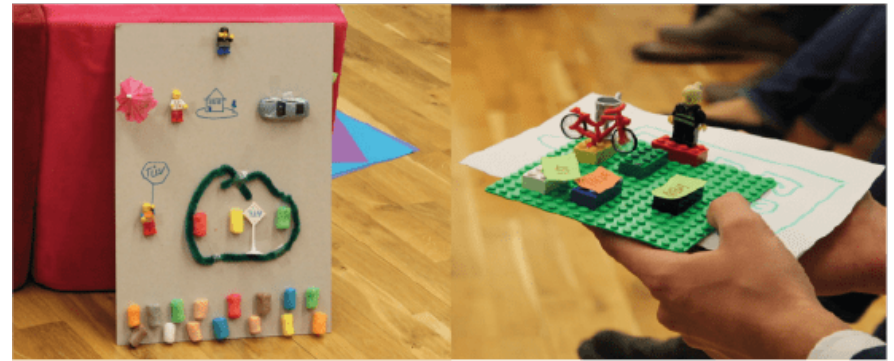Chance to refine and improve solutions

INNOVATE@UCLA

Gartner.

Ideation

Divergent Thinking →

Scattered · Audacious · Poor · Genius · Inconsistent

Ideation Funnel
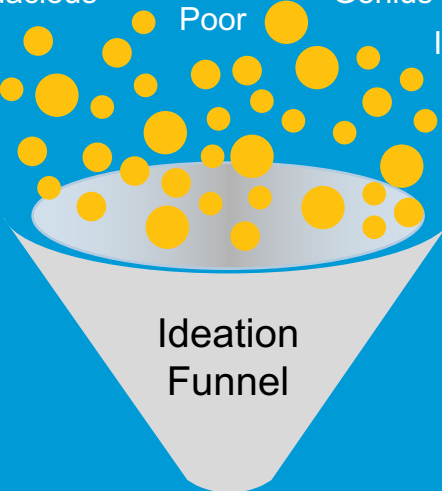
Convergent Thinking →

Different · Innovative · Valuable · Concrete

INNOVATE@UCLA   Gartner.

How to cultivate beginners' mind for a fresh perspective

- "Five Whys": Keep asking why until you get to a problem you can solve.

- 100 Questions: Write down ten questions you can think of about the challenge. Switch with your partner and add to their list.

- Kid questions: What would a child ask about the problem?

- What's the worst possible solution? What one thing could make that bad idea better? And another? And another?

INNOVATE@UCLA

Gartner

When it's time – converge!

- "How – Wow – Now" is a popular convergence technique

- Map your ideas based on originality and feasibility

Feasibility

| Now! | Wow! |
| Ciao | How? |

Originality

INNOVATE@UCLA

Gartner
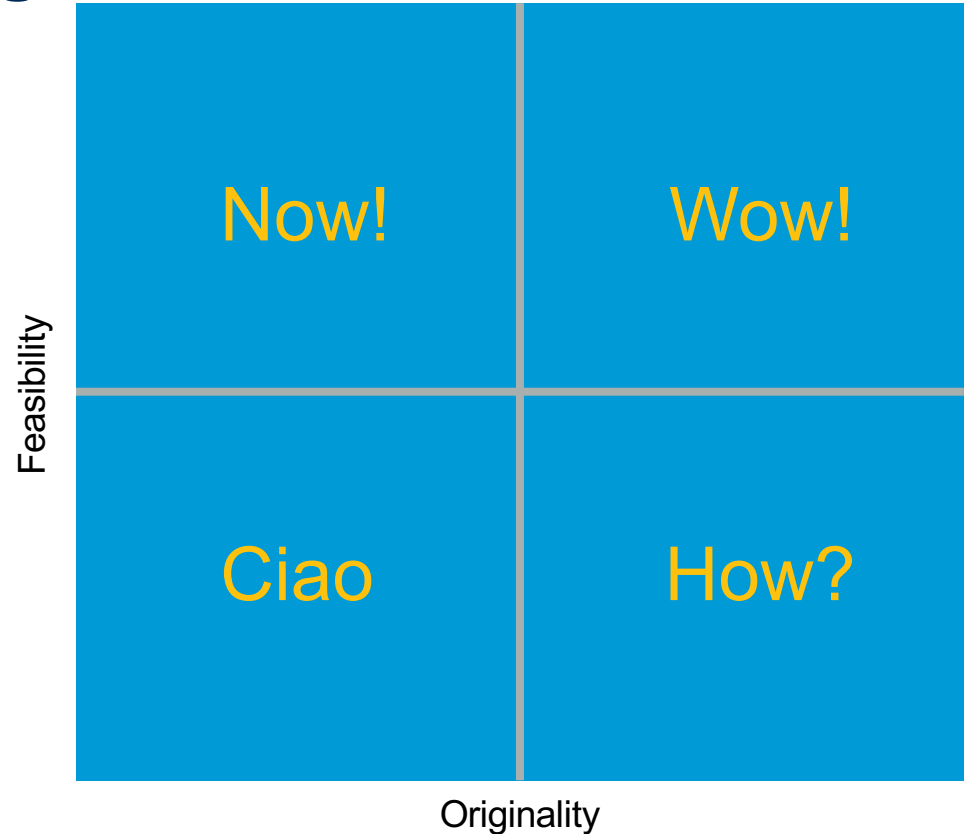
Stage 4 and 5: Prototype and Test

Empathize
Foundation of a human-centered design process; Necessary to observe, engage and immerse

Define
Empathy findings are unpacked and synthesized into compelling needs and insights

Ideate
Mode during the design process in which the focus lies on idea generation

Prototype
Getting ideas and explorations out of the head into the physical world

Test
Chance to refine and improve solutions

INNOVATE@UCLA

Gartner.

Prototyping

- Just start building!

- Don't spend too much time.

- Remember the problem you're trying to answer

- Build with the user in mind

? Remember – your prototype is a *tangible* way to communicate your solution.

INNOVATE@UCLA

Gartner.

Testing

- Test the prototype, not the user!

- Context matters

- Mind your interaction with users

- Observe and capture feedback

? You'll have to do this several times, as you iterate toward your final product.

INNOVATE@UCLA **Gartner.**

Key questions

1 What is design thinking?

2 How do you do design thinking?

3 Where can you begin?

INNOVATE@UCLA

Gartner.

INNOVATE@UCLA

Partner. Exchange. Transform

Thank You