Please KEEP your assignments to turn in at the end of class

MIS 5403

Summer 2015

Design Inquiry and Research

Week 2

cD+i

Fox School of Business
TEMPLE UNIVERSITY®

Welcome Back!

Did you enjoy your FIELDWORK ?

Agenda:

+ **Process Mapping** the way designers work
+ **Understanding** the power of people and stories
+ **Sharing** information collected and developing a framework for assessment.
+ **Analyzing** information from observations and fieldwork and
+ **Synthesizing** key insights
+ **Experience Mapping** and visualizing complex systems
+ **Identifying** opportunities
+ **Strategizing** a research plan for advancing your project: *What do you have? What do you need? What is missing?*

To begin a project, we need a working PROCESS

A **WARM-UP** exercise

How **DESIGNERS** work

Action:

act on a piece of paper +

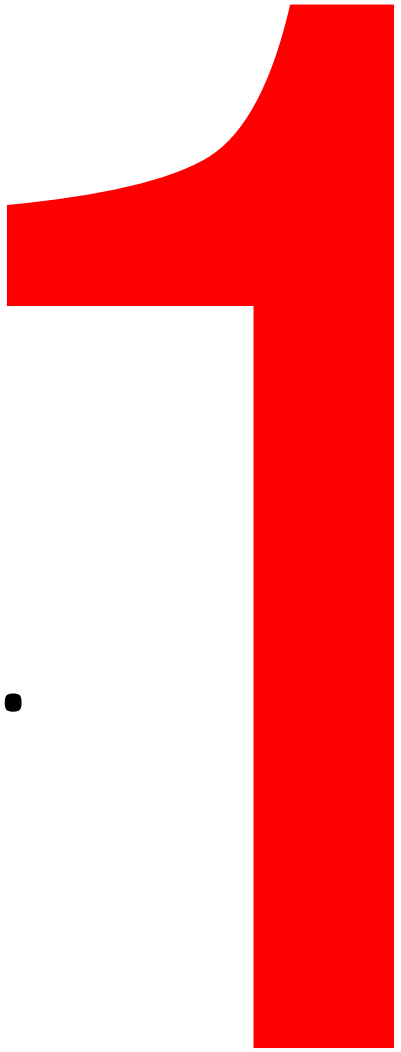
each person needs
seven sheets of paper.

1

do something with a piece of paper to make it stand.

do this four
more times.
each one must be
different

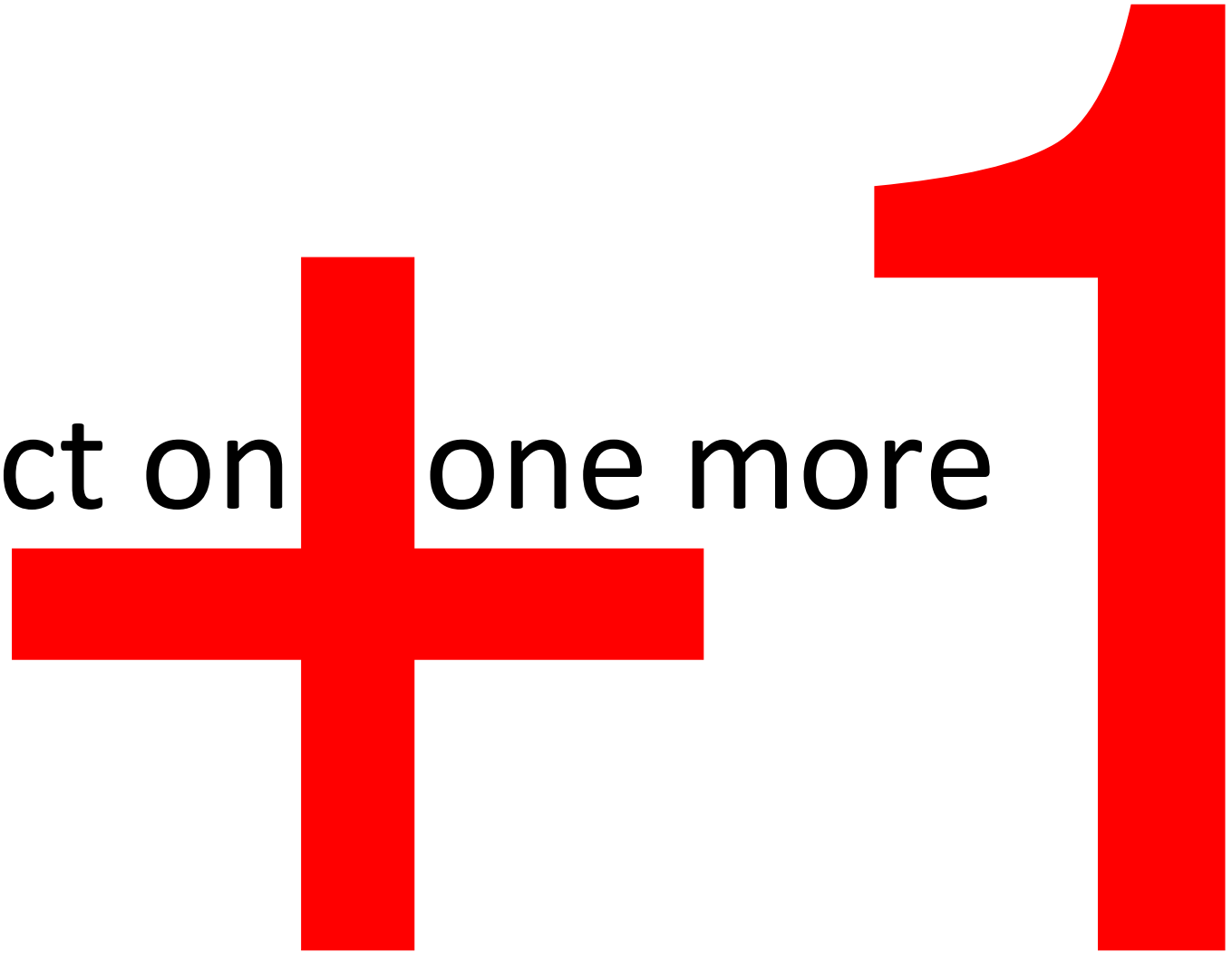
choose the best one.



why is it best

make it better.

is it better? why?

act on  one more

Lesson learned:

design process

What is

DESIGN PROCESS

DESIGN PROCESS

1: Define the problem
2: create and consider many options
3: refine selected directions
3.5: repeat (optional)
4: pick the winner, execute

Lesson learned:

learning by doing

Lesson learned:
designers iterate

THINK 3X

Google's 8 Pillars of Innovation:

Strive for continual innovation, not instant perfection

"Our iterative process often teaches us invaluable lessons. Watching users 'in the wild' as they use our products is the best way to find out what works, then we can act on that feedback….
Iterating has served us well."

- Susan Wojcicki, Google's Senior Vice President of Advertising

From: http://www.google.com/think/articles/8-pillars-of-innovation.htmls

Lesson learned:

fail to succeed

Google's 8 Pillars of Innovation:

Never fail to fail

"It's okay to fail as long as you learn from your mistakes and correct them fast. Trust me, we've failed plenty of times. Knowing that it's okay to fail can free you up to take risks."

- Susan Wojcicki, Google's Senior Vice President of Advertising

From: http://www.google.com/think/articles/8-pillars-of-innovation.htmls

"We love to invent. We love to pioneer. We even like going down alleys that turn out to be blind alleys,"

…

"Every once in a while those blind alleys turn into broad avenues. And that turns out to be lots of fun."

- Jeff Bezos, Amazon

From: Amazon announces new wave of Kindle
From CNN: http://www.cnn.com/2012/09/06/tech/mobile/amazon-kindle-event/index.html?hpt=hp_t1

s

Reflection:

How does a design process differ from a typical management approach?

+

What is a design attitude?

DRAWING is part of the design PROCESS

diagram

diagram *noun*

Greek *diagramma,* from *diagraphein* **to mark out by lines**, from *dia-* + *graphein* **to write**

First Known Use: 1619

1: a graphic design that explains rather than represents; *especially* : a drawing that shows arrangement and relations (as of parts)

2: a line drawing made for mathematical or scientific purposes

diagram *verb*

: to show or explain (something) in a diagram

From: http://www.merriam-webster.com/dictionary/diagram

How would you **DIAGRAM** the **DESIGN PROCESS and OUTCOMES**

Think visually

“… human life is not grounded in precision, but in the grasping of connections, facts, relationships, links, analogies…”

— Otl Aicher

DIAGRAM the Paper Exercise

As a team, discuss how you would begin to DIAGRAM the Exercise, Design Process and OUTCOMES.

How will you begin?

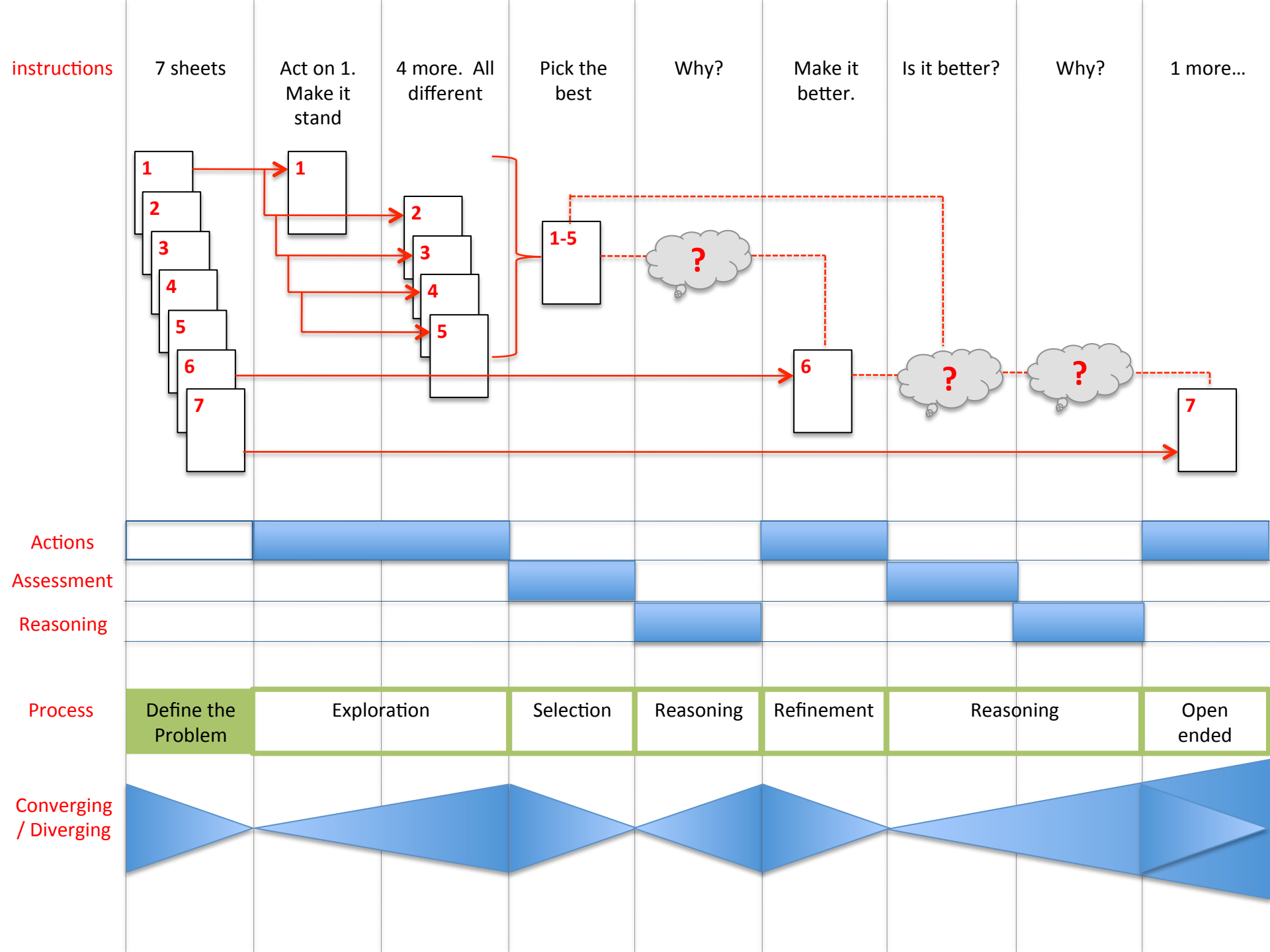
What will you include?

How will you show it?

Lesson learned:

design process

PRESENTATIONS+DISCUSSION


instructions
7 sheets
Act on 1. Make it stand
4 more. All different
Pick the best
Why?
Make it better.
Is it better?
Why?
1 more…
1
2
3
4
5
6
7
1
2
3
4
5
1-5
?
6
?
?
7
Actions
Assessment
Reasoning
Process
Define the Problem
Exploration
Selection
Reasoning
Refinement
Reasoning
Open ended
Converging / Diverging

Lesson learned form artists:

10 BUSINESS REASONS TO DRAW

"When I see a white piece of paper, I feel I've got to draw. **And drawing, for me, is the beginning of everything**."

Ellsworth Kelly

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"If you have an idea, you have to move on it, to make a gesture. **Drawing is an immediate way of articulating that idea** - of making a gesture that is both **physical and intellectual**."

Jeff Koons

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"But usually I begin things through a drawing, so **a lot of things are worked out in the drawing**. But even then, I still allow for and want to make changes."

Roy Lichtenstein

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"I prefer drawing to talking. **Drawing is faster, and leaves less room for lies.**"

Le Corbusier

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"Photography is an immediate reaction, **drawing is a meditation**."

Henri Cartier-Bresson

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"I've been fifty thousand times to the Louvre. I have copied everything in drawing, **trying to understand**."

Alberto Giacometti

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"A drawing is simply **a line going for a walk**."

Paul Klee

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"Drawing is a way of coming upon the **connection between things**, just like metaphor in poetry reconnects what has become separated."

John Berger

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"Drawing makes you **see things clearer, and clearer and clearer still**, until your eyes ache."

David Hockney

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

"It is only by **drawing often, drawing everything, drawing incessantly**, that one fine day you discover to your surprise that you have rendered something in its true character."

Camille Pissarro

From: http://www.brainyquote.com/quotes/keywords/drawing.html#o5vx6m5G4LYI1Ywt.99s

Understand the power of stories.
Look for very personal moments + insights
people.

ASSIGNMENT PART 2: **INTERVIEWS**

You must interview at least 3 people who represent stakeholders for your project.

You want to learn as much as you can about them and their personal relationship to the project domain of interest.

Write a 1-2 page (full page minimum) personal portrait telling their "story". Provide details and insights into their personalities, choices, preferences, and personal intellectual and emotion drivers. **This is a story – not a Q+A summary.**

The interview assignments are opportunities to understand the relationship between PEOPLE and SITUATIONS. Your goal is to understand what people want and need. Successful interview assignments usually involve multiple interviews and several pages of transcribed conversation that are summarized and distilled into a meaningful narrative.

If your interview is very brief or cut short – I strongly suggest doing another until you have sufficient material.

Look for very
personal moments
and
important insights.

“Contrary to the common commuter, to Francis, the bus serves not as a part of an average day but as an occasional treat granting him the freedom to explore the city in which he operates. The fact that he cannot take this “trip” as often as he wishes makes the entire transit experience much more important in his life. One may conclude that the bus helps him to escape the trials of his everyday life, at least for a short while.”

“She admits that she tries to minimize her exposure to the bus shelter because it is not very accommodating and it makes her feel isolated. She describes the experience of sitting on the small wooden bench by herself while cars zoom past her at a high rate of speed. She jokes that it feels like every car speeds past mocking her misfortune of waiting for the bus in such miserable conditions.”

Learning by doing:

assessing the work of your team

30 min

Distribute your interviews among members of your team.

Read at least 3 interviews that are not your own.
Make note of what captures your imagination. Look for personal wants and needs.
ASSESS THE QUALITY OF THE NARRATIVE AND WRITE YOUR COMMENTS ON THEM.

Discuss which are the most effective stories and WHY.

Select YOUR BEST ONE and turn it in to be graded.

5 min to individually answer:

What makes a good **NARRATIVE?**

What are the essential **COMPONENTS?**

What can it **REVEAL?**

Research + FIELD WORK

ASSIGNMENT PART 1: **RESEARCH**

You will conduct ethnographic research related to your project.

1. Go out and visit / observe / experience the bus system and bus shelters. RIDE THE BUS.

2. You must take at least 20 different pictures of a situation relevant to your project domain of interest. Photos should present a range of perspectives from general overview images to very specific details and situational context.

3. Take at least 3 video clips of 3 minutes each.

What kind of RESEARCH did you do?

How does this relate to

“Design Research for Radical Innovation”

TELL ME MORE ABOUT . . .

1. What are 3 key points you took from the assigned readings?

2. How do your personal research and fieldwork reflect the ideas and methods in the readings?

3. What are 3 ways you personally conducted research that were **unexpected, uncomfortable, exciting** or **most unusual**?

4. What are 3 things you discovered that **surprised** you?

Generative

Evaluative

Predictive

Each of you is an EXPERT.
Now your team has to
KNOW what you know.

sharing research

observations + interviews

Sharing your research

Analyzing your research

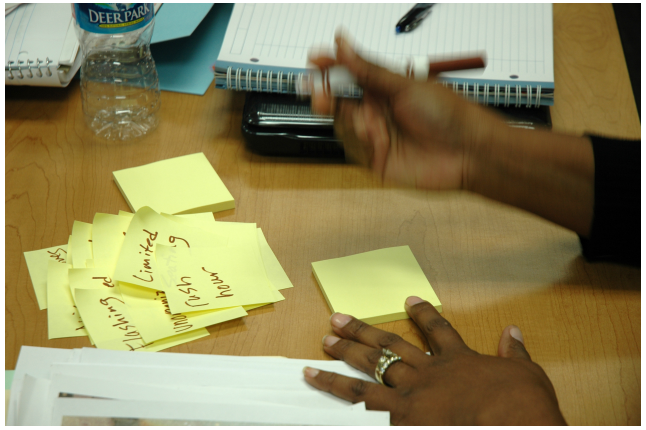
Visualizing connections

Understanding what the information tells you

Synthesizing insights

process review

I am inspired by City Hall
because it came along around
the 1900s and which means
it's been around for awhile
& many people visits City hall
when coming from out of Town.
1. Tell your story

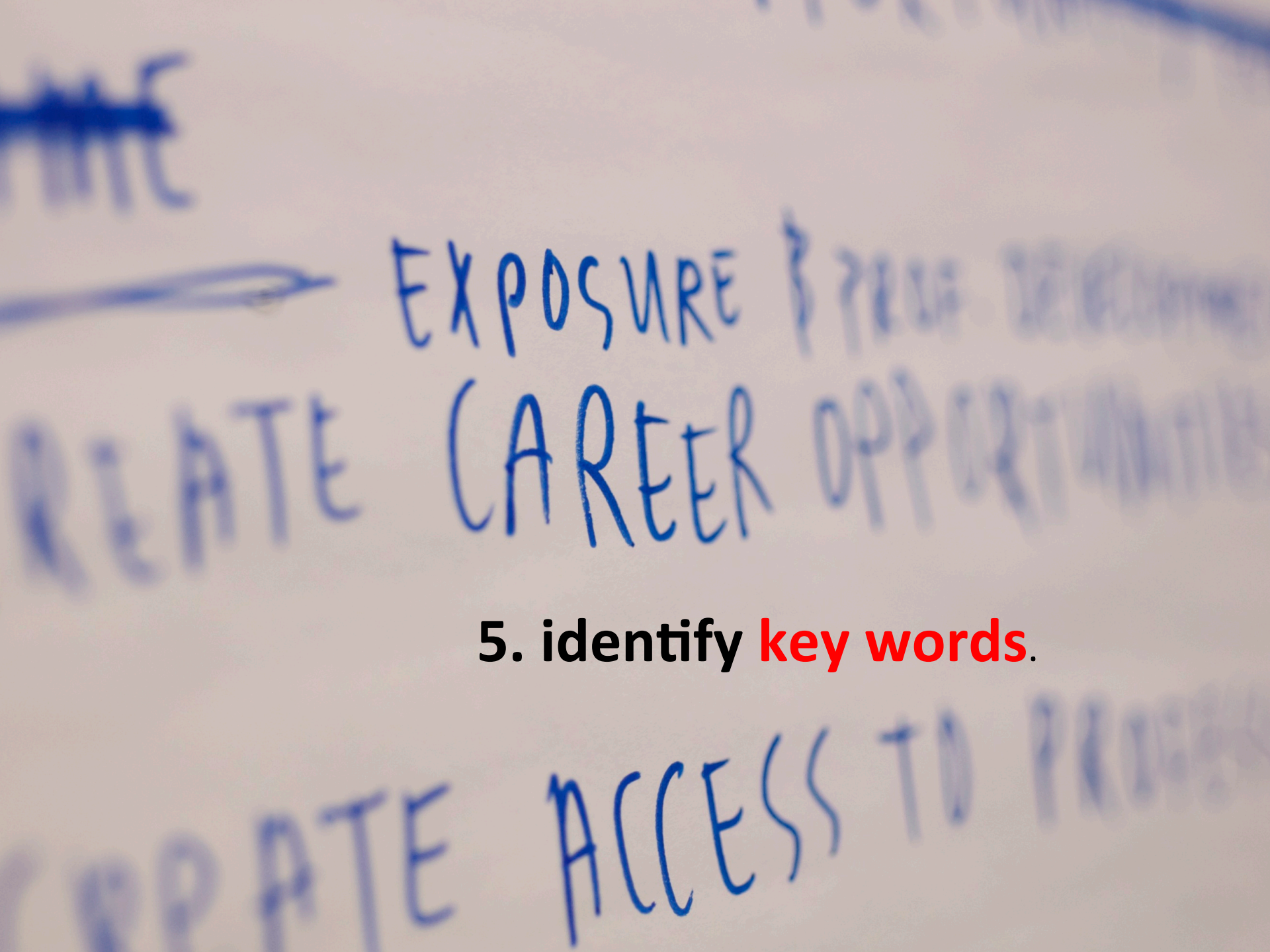


2. listen for meaning + take notes

2.5. isolate ideas

3. then put them on the wall

4. look for patterns



5. identify key words.

Our goal is to DISCOVER the underlying **patterns**, **structures**, **needs** and **opportunities**

Let’s begin.

Sharing
project
RESEARCH
Crayola
Crayola.com

sharing observations + interviews

Use you photos, video and notes to share what you saw, heard, noticed, questioned…

:04 each

Cluster and look for patterns
Identify key words
0:20

CLUSTERS TO CONSIDER:

+ **System Components**
+ **Actors**
+ **Actions**
+ **Drivers:** Emotional / Operational / Functional / Cultural
+ **Places / Locations**
+ **MONEY / Pricing / Value**
+ **Information**
+ **Needs**
+ **Risks / Rewards**
+ **Other?**

Questions your fundamental ASSUMPTIONS

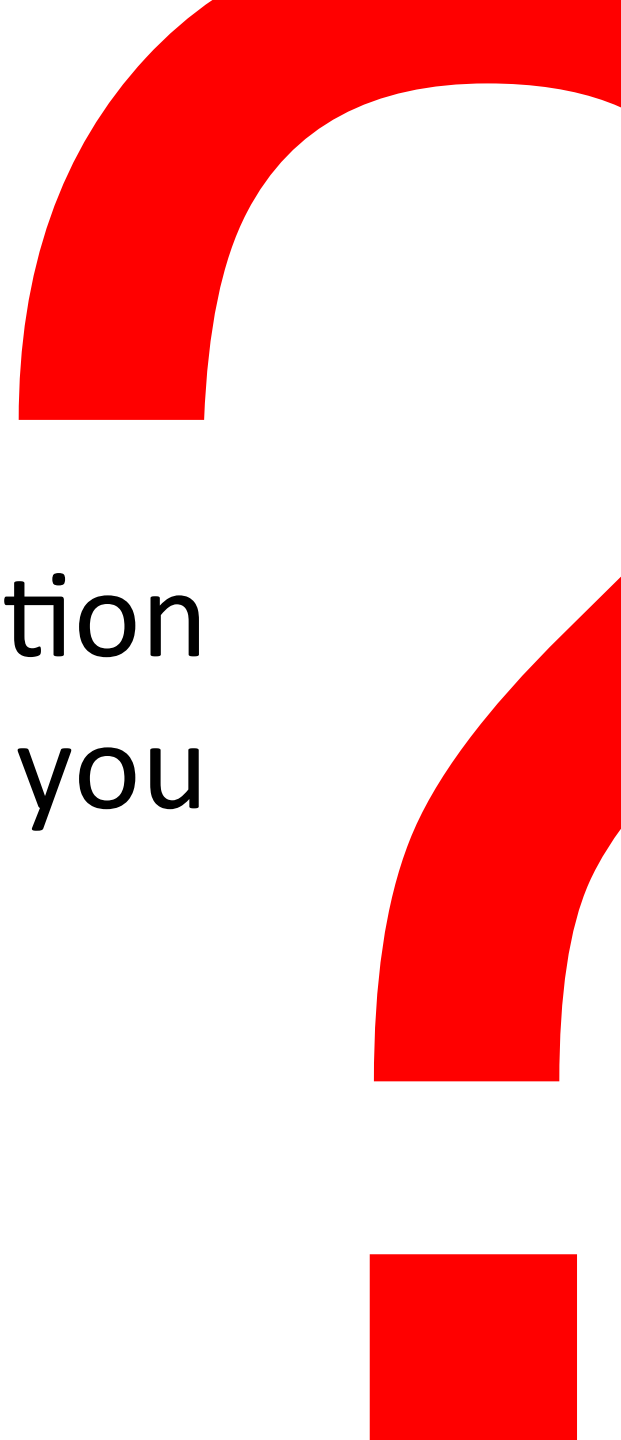
"Not surprisingly, disruptive ideas stand a small chance of ever seeing the light of day when they are evaluated with the screens and lenses a company uses to identify and shape sustaining innovations. Companies frustrated by an inability to create new growth shouldn't conclude that they aren't generating enough good ideas. **The problem doesn't lie in their creativity; it lies in their processes.**"

From Christensen: *The Innovator's Solution: Creating and Sustaining Successful Growth*
Quoted by Fulton Suri: *Informing our Intuition: Design Research for Radical Innovation*

"Processes that are good at instilling confidence when it comes to directions for incremental innovation can be **inappropriately limiting** and personally discouraging to more radical innovation efforts, in which many variables are unknown or unknowable."

From Fulton Suri: *Informing our Intuition: Design Research for Radical Innovation*

What is the information **TELLING** you



Answer the essential questions:

Why do people drive?

Why don't people drive?

Why do people ride the bus?

Why don't people ride the bus?

ALSO CONSIDER:

"The BUS SYSTEM is …"
"The current situation lacks…"
"The consumer wants…"
"The consumer/system needs…"
"The main components of the system are…"
"The challenges they face are…"
"A hidden opportunity is…"

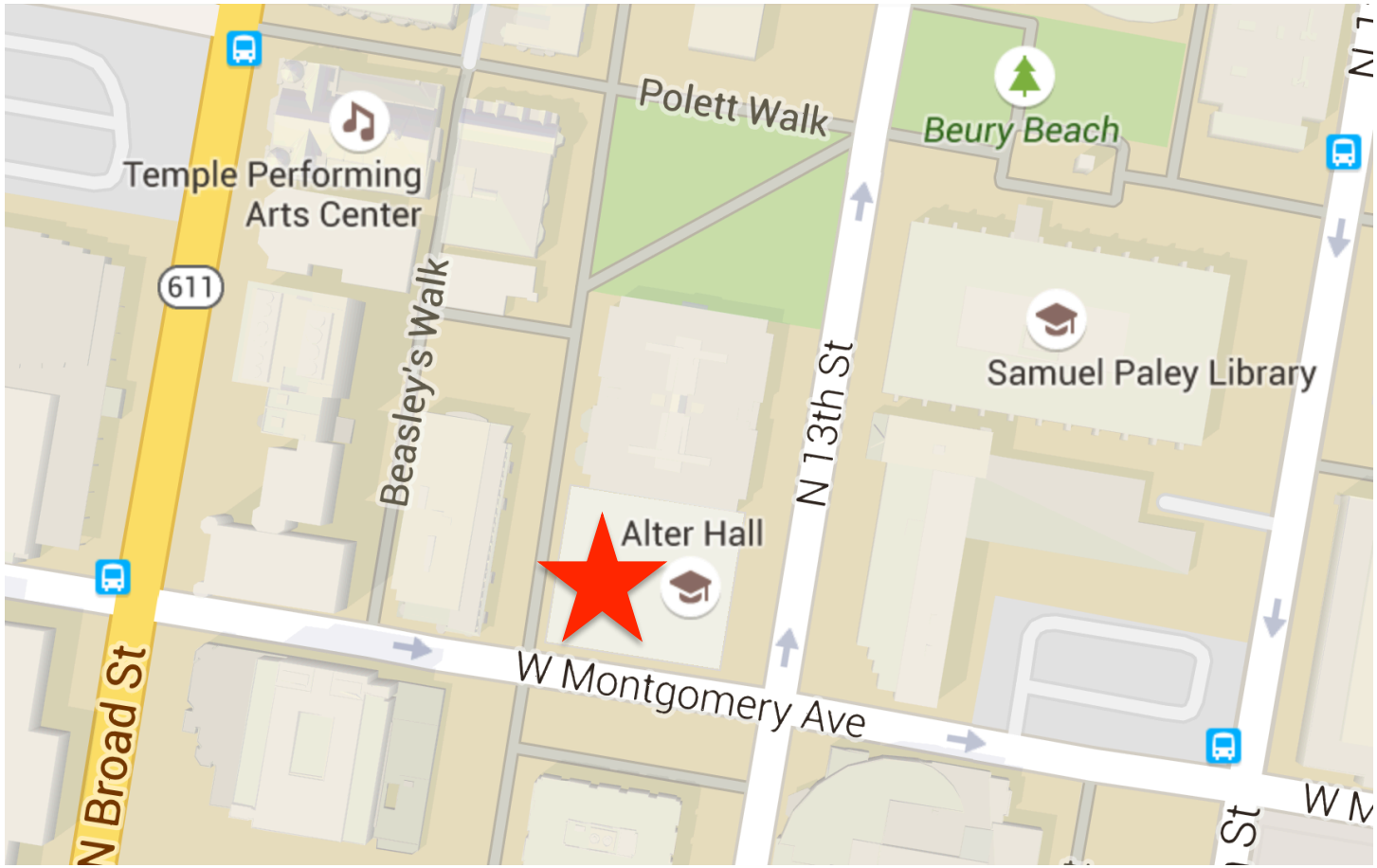
Now we need to use our research and insights to understand the SYSTEM

Mapping a **system** or an **experience**.

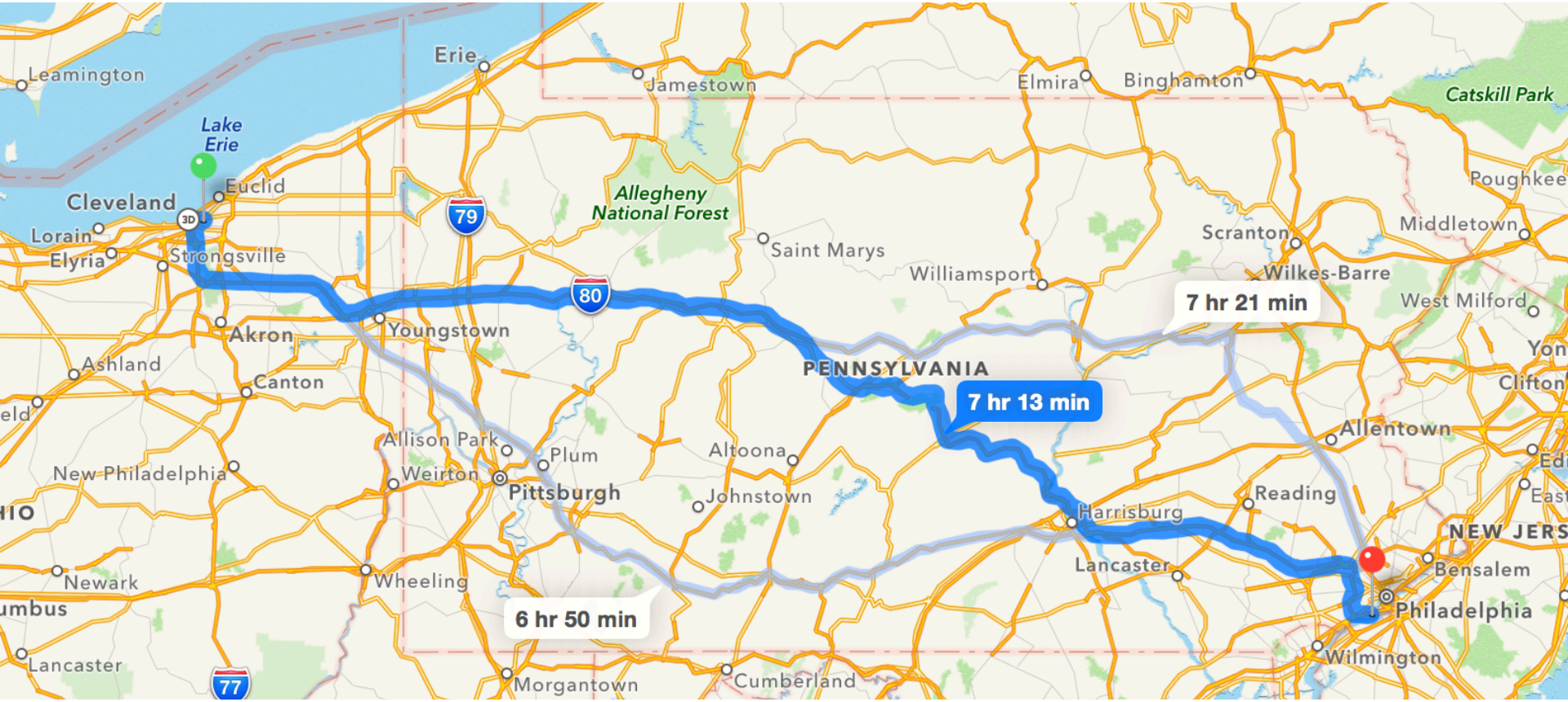
Making the **COMPLEX** more **CLEAR**.

Let’s look at **mapping**.

maps show where you have been.



maps show where you are.

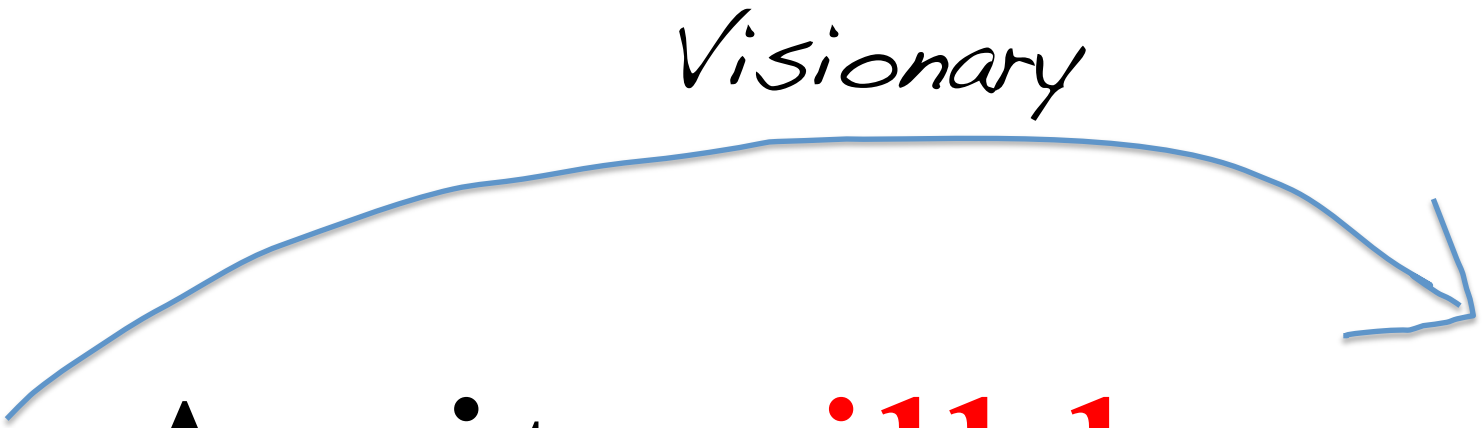


maps show where you are going.

As it was.

Reflective

As it is.



As it will be.

Map a process/system.

Map an experience.

Map a strategy.

map

diagram

Medieval Latin *mappa,* from Latin, **napkin, towel**

First Known Use: 1527

verb

: to plan the details of (something)

transitive verb

1*a* : to make a map of <*map* the surface of the moon>

***b* : to delineate as if on a map <sorrow was *mapped* on her face>**

***c* : to make a survey of for or as if for the purpose of making a map**

***d* : to assign (as a set or element) in a mathematical or exact correspondence <*map* picture elements to video memory>**

2: to plan in detail —often used with *out* <*map* out a program>

3: to locate (a gene) on a chromosome

Maps help to explore.

explore

transitive verb

1*a* **: to investigate, study, or analyze :** look into <*explore* the relationship between social class and learning ability> —sometimes used with indirect questions <to *explore* where ethical issues arise — R. T. Blackburn>

b **:** to become familiar with by **testing or experimenting** <*explore* new cuisines>

2**:** to travel over (new territory) for adventure or discovery

3**: to examine especially for diagnostic purposes** <*explore* the wound>

intransitive verb

: to make or conduct a systematic search <*explore* for oil>

Origin of *EXPLORE*

Latin *explorare,* from *ex-* + *plorare* to cry out

First Known Use: 1585

From http://www.merriam-webster.com/dictionary/explore

Explore

etymology:

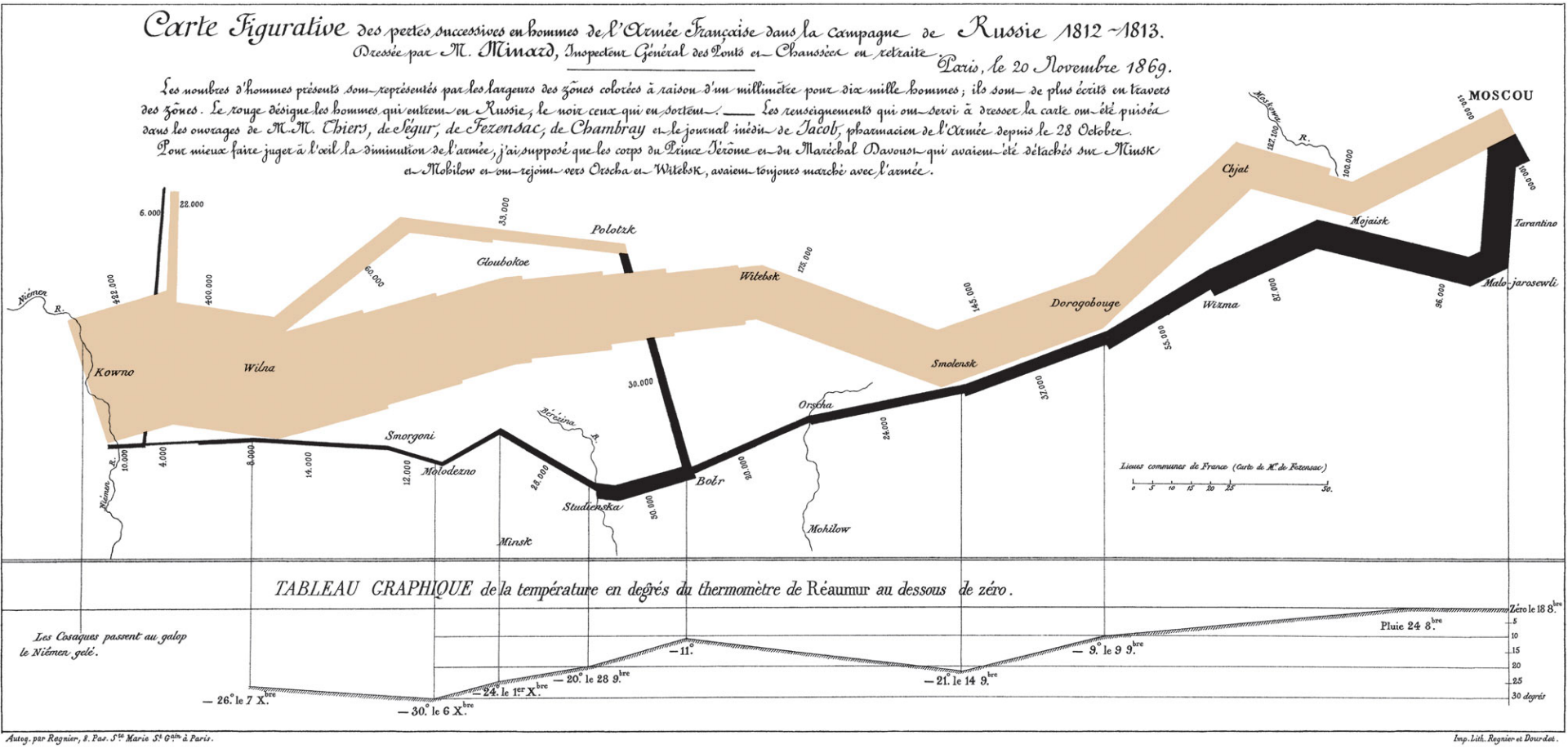
1580s, "to investigate, examine," a back formation from exploration, or else from M.Fr. explorer (16c.), from L. explorare "investigate, search out, examine, explore," said to be originally a hunters' term meaning "set up a loud cry," from ex- "out" (see ex-) + plorare "to cry." But second element also explained as "to make to flow," from pluere "to flow." Meaning "to go to a country or place in quest of discoveries" is first attested 1610s.

http://www.etymonline.com/index.php?term=explore

Maps examine.

Maps “cry out”.

Maps “make flow”.

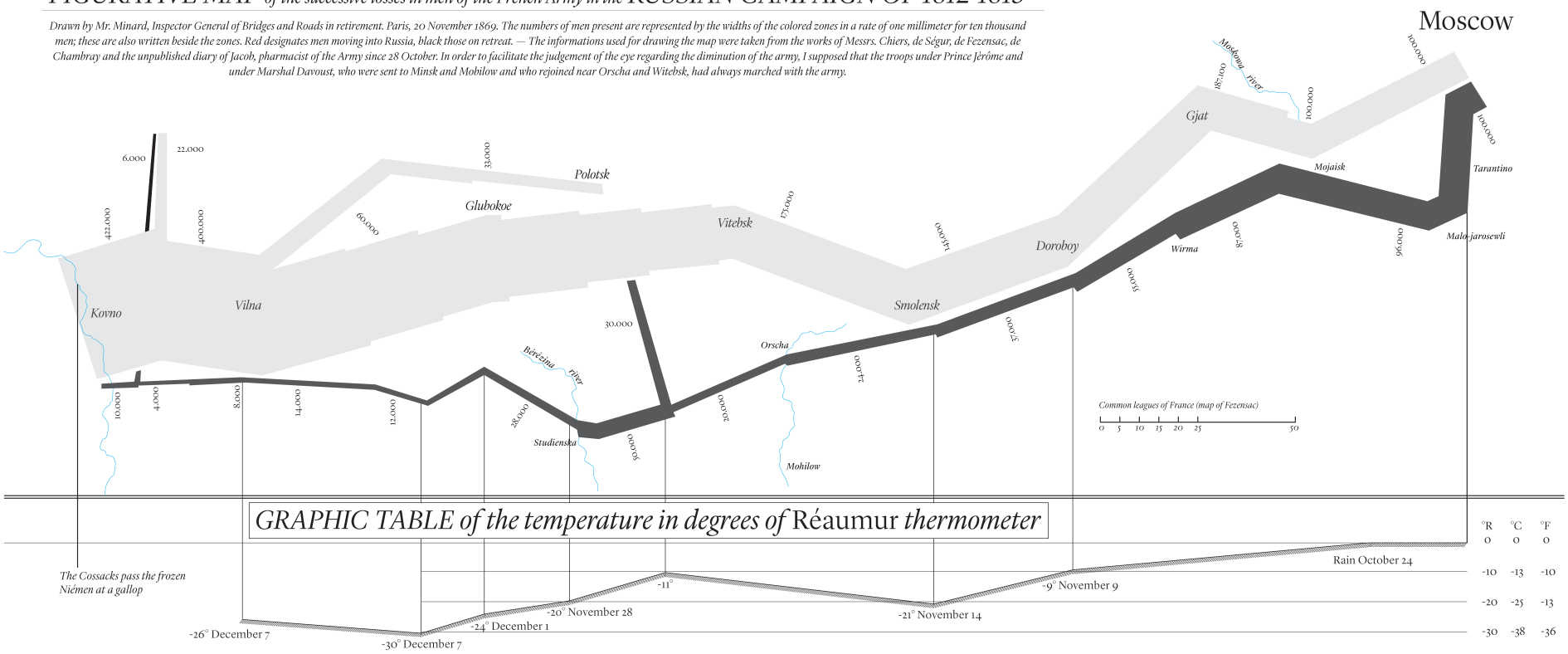


Tableaux Graphiques et Cartes Figuratives de M. Minard, 1845-69

From *The Visual Display of Quantitative Information*
Edward Tufte

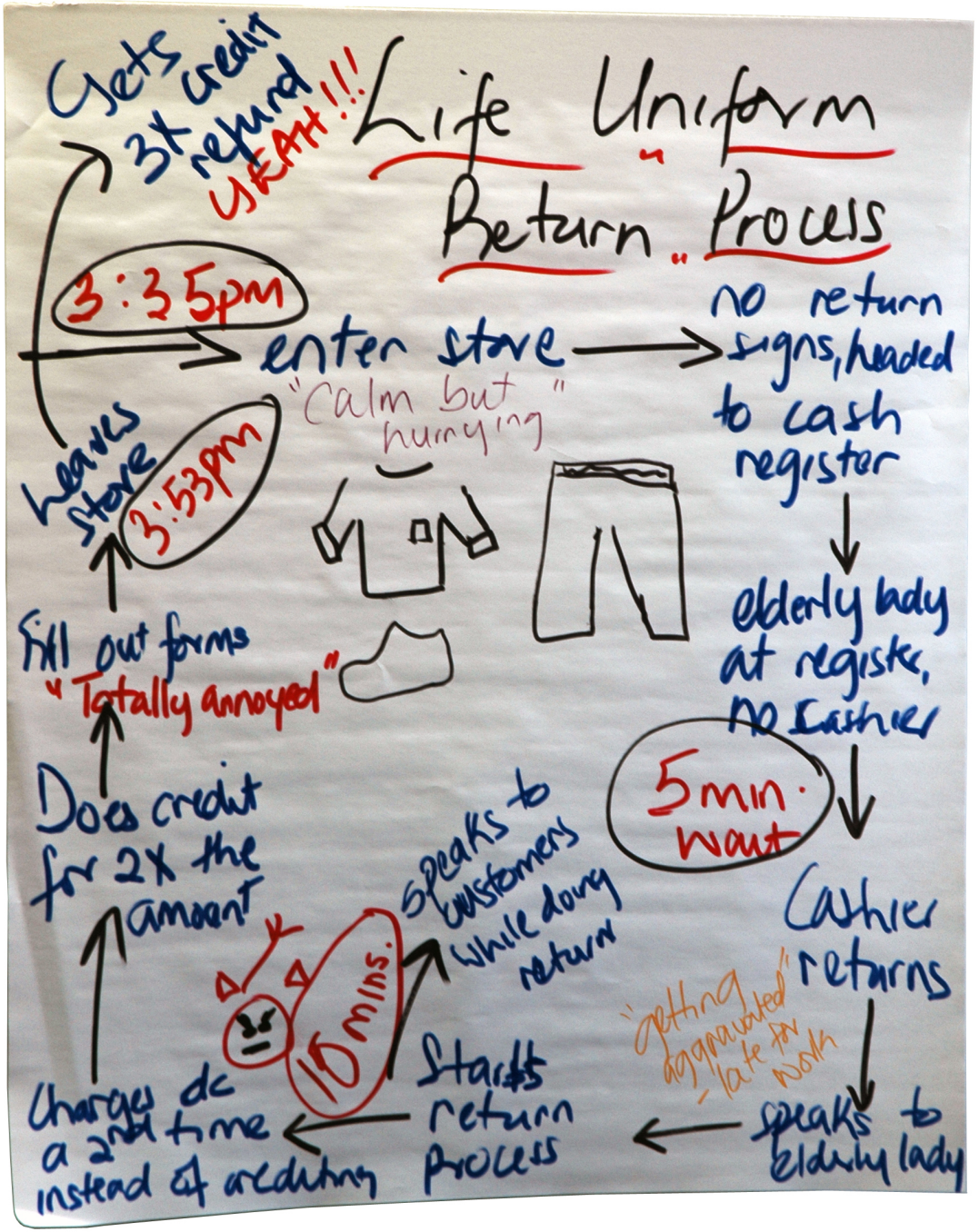
FIGURATIVE MAP of the successive losses in men of the French Army in the RUSSIAN CAMPAIGN OF 1812-1813

Drawn by Mr. Minard, Inspector General of Bridges and Roads in retirement. Paris, 20 November 1869. The numbers of men present are represented by the widths of the colored zones in a rate of one millimeter for ten thousand men; these are also written beside the zones. Red designates men moving into Russia, black those on retreat. — The informations used for drawing the map were taken from the works of Messrs. Chiers, de Ségur, de Fezensac, de Chambray and the unpublished diary of Jacob, pharmacist of the Army since 28 October. In order to facilitate the judgement of the eye regarding the diminution of the army, I supposed that the troops under Prince Jérôme and under Marshal Davoust, who were sent to Minsk and Mobilow and who rejoined near Orscha and Witebsk, had always marched with the army.



GRAPHIC TABLE of the temperature in degrees of Réaumur *thermometer*

"Minard map of napoleon" by Iñigo Lopez - Own work. Licensed under CC BY-SA 4.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Minard_map_of_napoleon.png#/media/File:Minard_map_of_napoleon.png



This is an exploration

Your NEXT Assignment:

VISUALIZING A SYSTEM

INDIVIDUALLY prepare a visual representation of your project as a system. SHOW HOW THIS SYSTEM WORKS.

Use Powerpoint (or other graphic software that enables you to generate a jpeg or pdf file) to create your representation. You may use any graphic tools, animations or effects to communicate your idea – but they must enhance communicating your ideas.

You may only use 1 slide.

THIS IS A VISUAL REPRESENTATION, NOT A PRESENTATION.

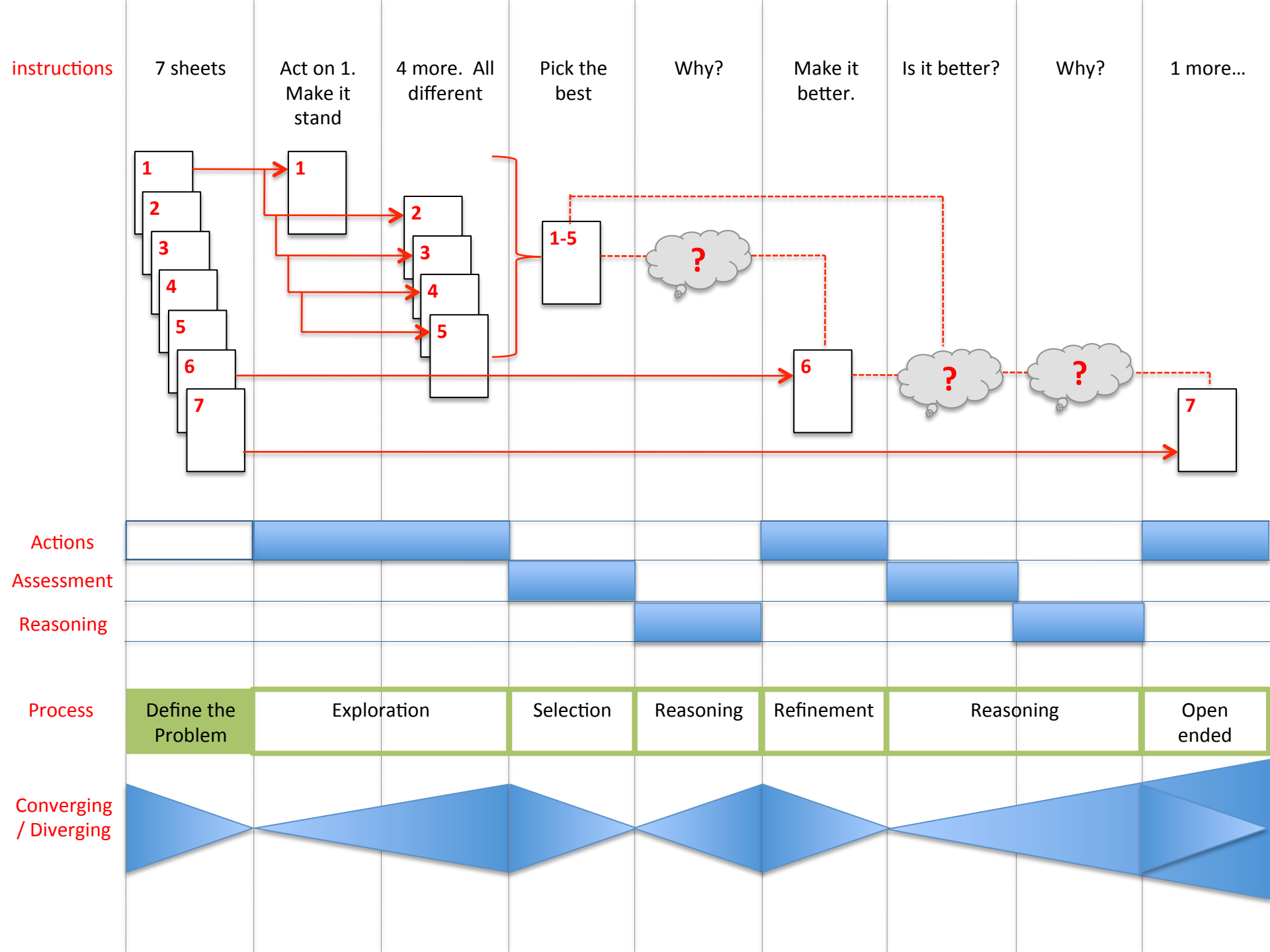
Conduct any additional research to understand you persona's unmet needs and fill any gaps in the general research identified by the team.

Review the samples on the course blog.

MAP or DIAGRAM your RESEARCH

As a team, DIAGRAM/MAP the RESEARCH you have done.

1. Show what you have DONE
2. What have you DISCOVERED?
3. What are the GAPS in your research?
4. What do you need to do next?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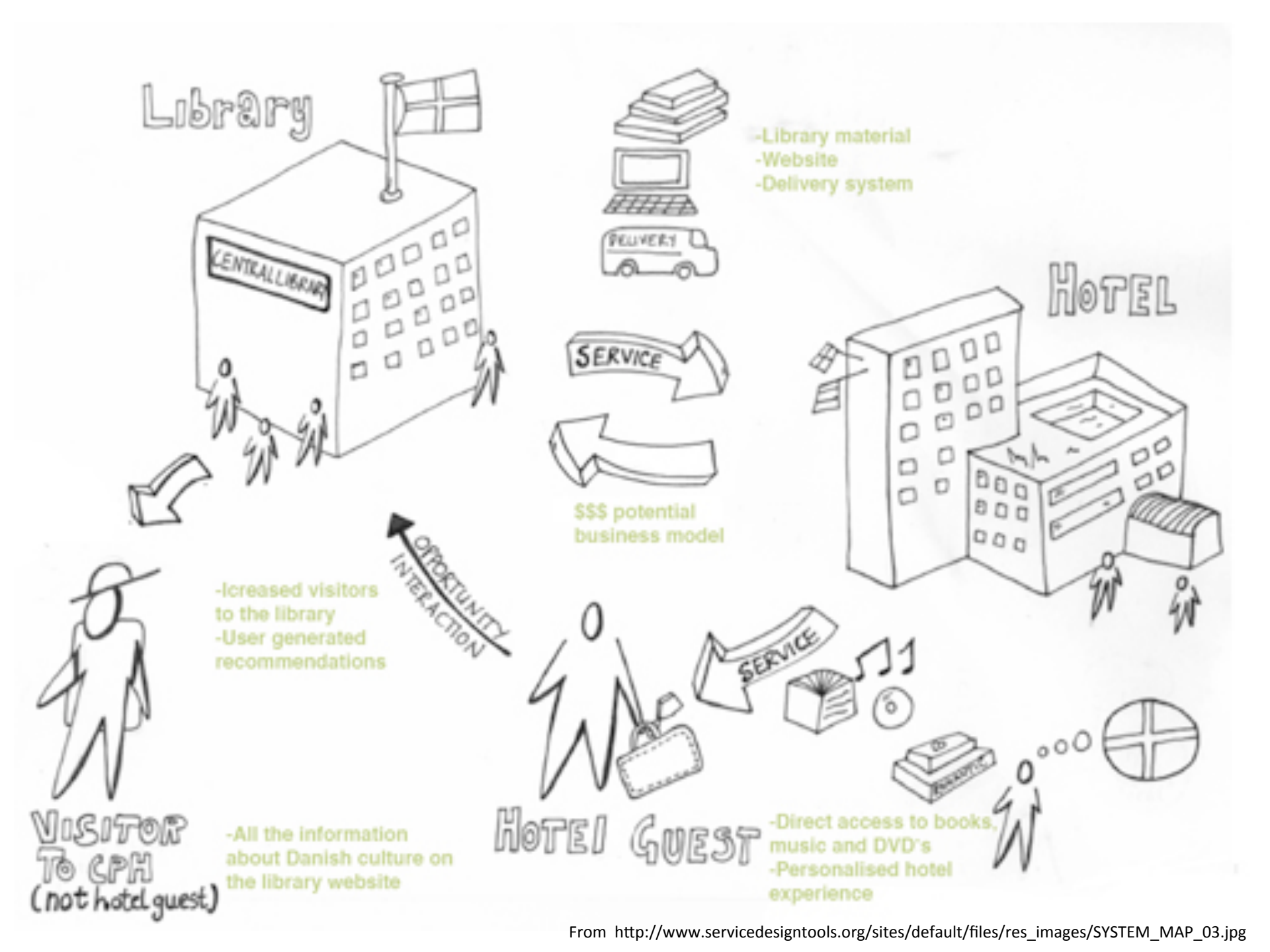
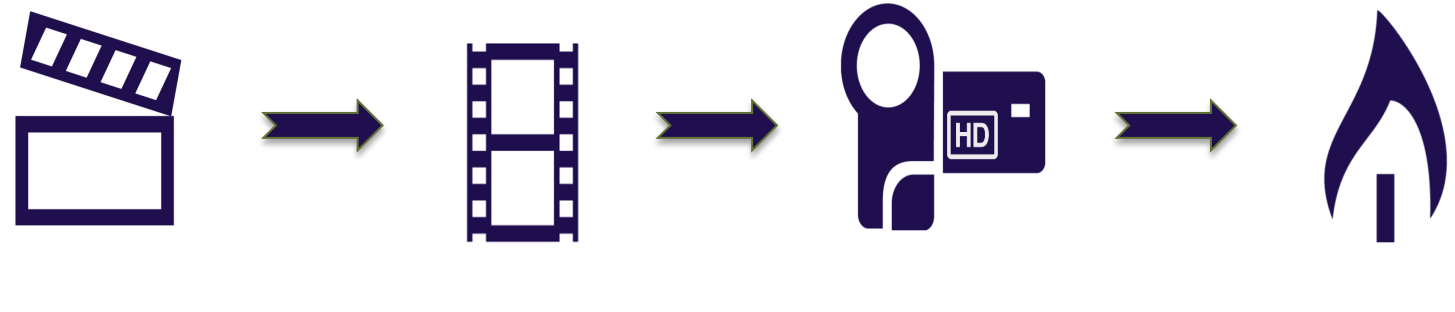


From http://www.servicedesigntools.org/sites/default/files/res_images/SYSTEM_MAP_03.jpg

the system



Master copy DVD to camcorder

Master copy DVD to camcorder

Master copy DVD to camcorder

Market Phase 1:
From P&G to the

Procter&Gamble

I'll flip this in no time…easy money.

…t me out
…k.

Distribution Network

Paid $

Paid in $ or drugs

Paid in $ or drugs

Return for credit

"Brick & Mortar"

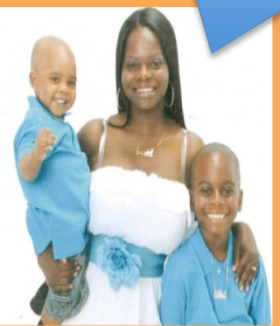
End User
(Paying $$$$$)

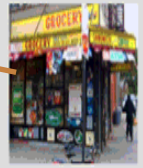
Key Facts

- Tide has 30% market share
- Demand fueled by prestige & loyalty
- Cost 40% less in underground markets
- Shoplifting only misdemeanor

…se 2:
…s to

I do everything I can to give my kids as much as I can.





Bodega

Flea Market

Online Auction

Personal Site

Pawn Shop

Drug House

End User (Paying $)…knows **BEST** price is not at:

Key Facts

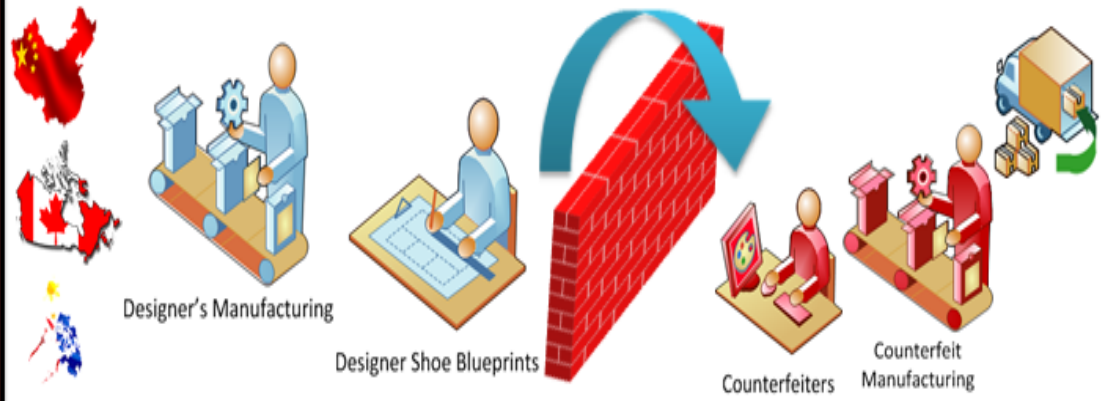
- Tide difficult to securitize due to packaging & sales velocity
- Thefts untraceable
- Not illegal to have tru… full of tide

Counterfeit Designer Shoe Map

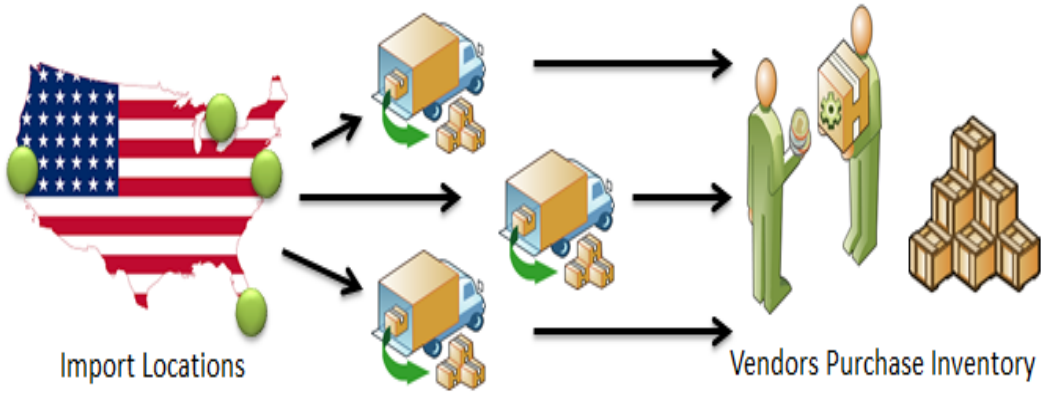
TRADITIONAL SUPPLY CHAIN

ONLINE SUPPLY CHAIN

MANUFACTURING



Distribution



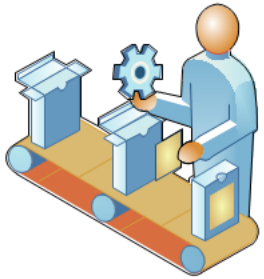
Retail

Vendors set-up displays at local flea markets

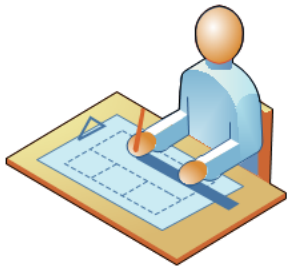
Vendors & customers haggle over prices in a very competitive market

A transaction is completed once both parties needs are fulfilled

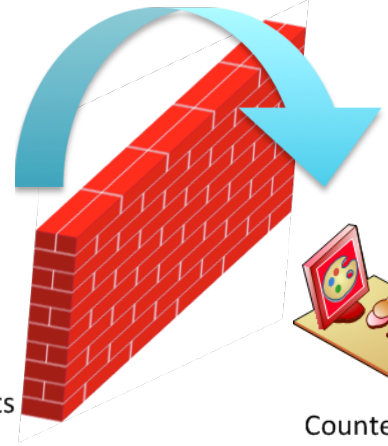
MANUFACTURING



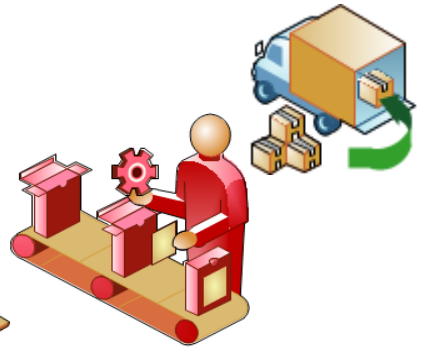
Designer's Manufacturing



Designer Shoe Blueprints



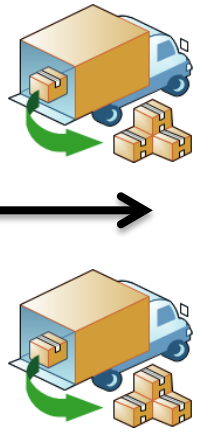
Counterfeiters

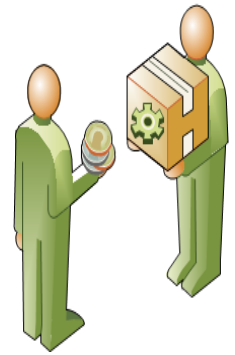


Counterfeit Manufacturing

Distribution

Import Locations

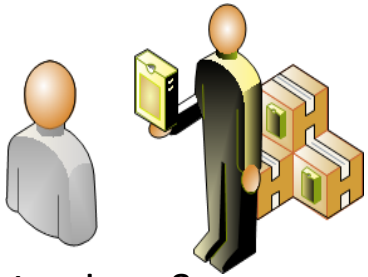




Vendors Purchase Inventory

Retail

Vendors set-up displays at local flea markets



Vendors & customers haggle over prices in a very competitive market

A transaction is completed once both parties needs are fulfilled

Team WORK session

USE YOUR RESEARCH CLUSTERS:

1. Begin mapping your project information as a system.
2. Based on your clusters, what information are you missing?
3. Plan + coordinate your team research for next week.

As a team update your research plan:

- What does your information **REVEAL** as a system?
- Are there **opportunities** here?
- What do you want to know more about?
- How will you approach the research?
- How will you find **qualitative** and **quantitative** data?

Capture the **CONTENT** and **DETAILS**

Next CLASS

11 Sept at TUCC

Challenge Kick off:

1. Speed-dating interviews with EXPERTS
2. Plan + coordinate additional team research for the next week.
3. Networking
4. The CHALLENGE will be about bringing it all together as a PROPOSAL

The Challenge Kick-off
Learn from experts

The Challenge: Create + share ideas

Quickly clean up:

PUT YOUR TOYS AWAY!

place all your tools away in an ORGANIZED AND NEAT MANNER

return the bins to the stack.

return all other materials to supply tables