



MIS 3504

# Digital Design and Innovation Studio

8: THE ART OF DESIGN

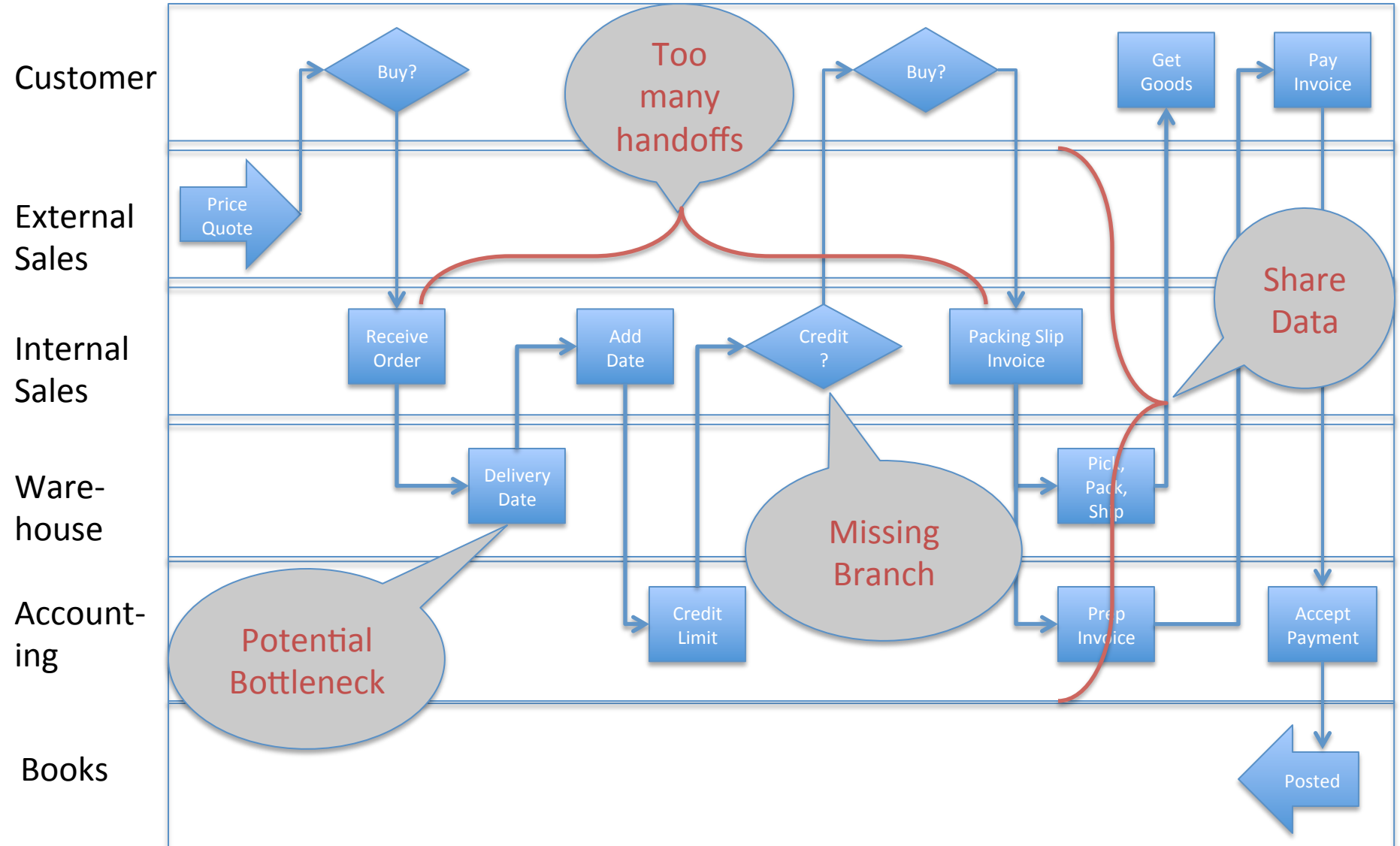
Rich Flanagan / James Moustafellos

Photo: Installation by Jenny Holzer, US Pavillion, Venice Biennale 1990

Exam #2

Next week

# Sales Order Swim Lane



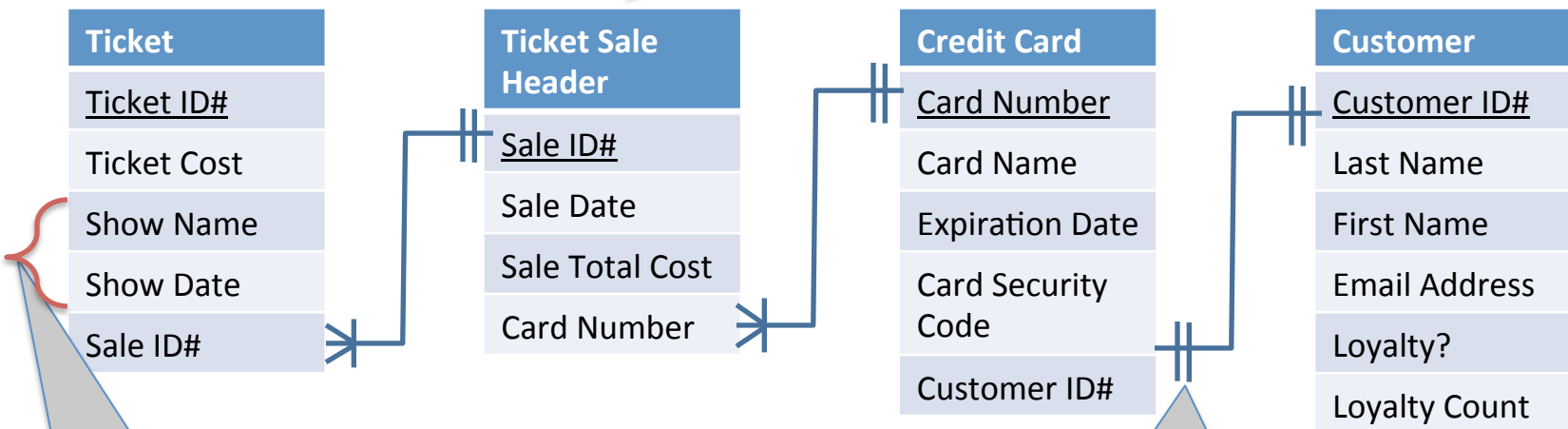
# Swim Lane Issues

1. Do all people and databases have a lane?
2. Is the flow clear?
3. Have you documented each step?
4. Have you documented each decision?
5. Are there decisions with only one outflow?
6. Where is information (documents and data) being stored?

# Schema for Night Owl Ticket Purchases

(Tickets are purchased by customers using credit cards)

Missing Attributes



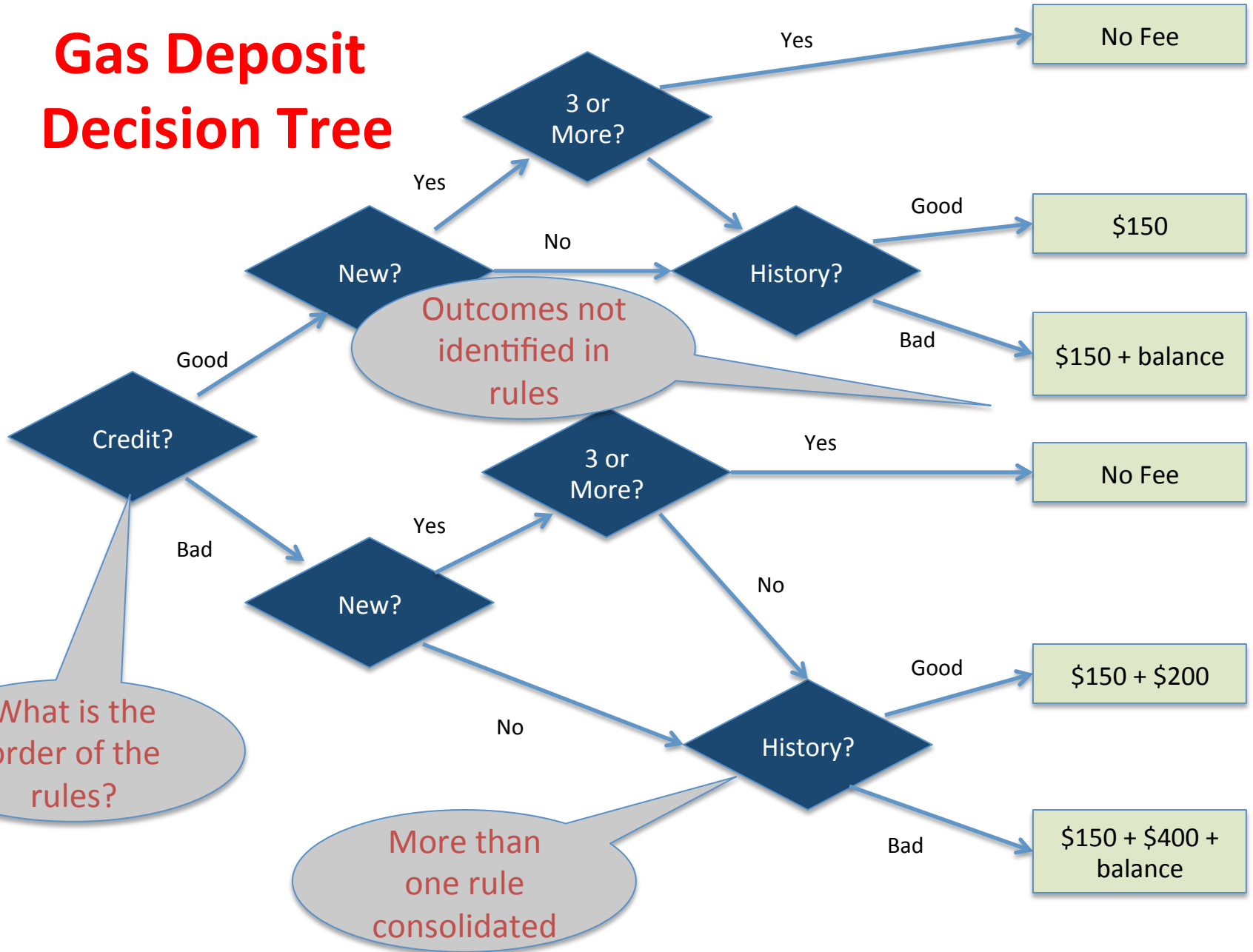
Repetitive Data = Missing Entity

Wrong Cardinality

# Issues with data

1. Are all stand alone nouns identified as entities, or synonyms of an entity?
2. If a noun describes something else, its an attribute.
3. If the entity has no attributes, then it probably isn't an entity.
4. If two entities have mostly the same attributes, then they are probably the same entity.
5. If a number of attributes in an entity describe something else, it is probably two entities.

# Gas Deposit Decision Tree



# Issues with business rules

1. Do you have a business rule for every decision in your swim lane?
2. Your focus should be the work, not who does it or the conditions.
3. Is your rule in passive voice?
4. In a decision tree, do you have a branch for each outcome of every rule?



Now the fun **starts**

# SYNTHESIS

**BRAINSTORMING**

**SOLUTIONS**

**“Business creativity is all about finding fresh and innovative solutions to problems, and identifying opportunities to improve the way we do things.”**

**From How Creative are You? <http://www.mindtools.com/pages/article/creativity-quiz.htm>**

# What is 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


CREATE AND CONSIDER

MANY OPTIONS

**“We happen to think idea generation is an art form. It's about setting a safe, creative space for people to feel like they can say anything, be wild, not be judged, so that new ideas can be born.”**

**IDEO**

<http://www.openideo.com/fieldnotes/openideo-team-notes/seven-tips-on-better-brainstorming>



What are the RULES  
for BRAINSTORMING



# **IDEO's 7 Rules for BRAINSTORMING**

- 1. Defer judgment**
- 2. Encourage wild ideas**
- 3. Build on the ideas of others**
- 4. Stay focused on the topic**
- 5. One conversation at a time**
- 6. Be visual**
- 7. Go for quantity**

**QUANTITY = the power of MORE**

**More IDEAS / More OPTIONS / More ENGAGEMENT / More  
CONTRIBUTIONS / More MEANINGFUL SOLUTIONS**

LIMITED IDEAS EQUALS

LIMITED THINKING

GENERATE MANY IDEAS

BUILD AND COMBINE

DO NOT EDIT AND

ELIMINATE (EARLY ON)

Team **work session**

# Consider

1. **What** are your objectives?  
What problem are you trying to solve?
2. **Who** are your affected stakeholders?
3. **How** will you solve the problem **FOR THEM?**

Step 1: (CREATE + FILL IN THE TEMPLATE PROVIDED)

As a TEAM, make a list of your main OBJECTIVES for your project.

**5 MINUTES**

Who are the main stakeholders?

(Press (Editorial / Marketing) , Scholars, Readers, Students, Enthusiasts, Authors)

What do they WANT? What do they HAVE? What do they NEED? -- related to the OBJECTIVES

**15 MINUTES**

Stakeholder	<b>WANTS</b>	<b>NEEDS</b>	<b>HAS</b>	Stakeholder
Stakeholder 1				
				Stakeholder 2
Stakeholder 3				



Stakeholder	<b>WANTS</b>	<b>NEEDS</b>	<b>HAS</b>	Stakeholder
Stakeholder 1 Reader/Student	More information about the subject and to learn more about the author	An easy way to access or link to additional content		
		Needs a platform to easily make content available.	Video of interviews and Q +A Sessions with the Author in their archives. C	Stakeholder 2 TU PRESS
Stakeholder 3 TU Press Marketing	A way to engage readers on the website to build awareness of products to increase sales	More interactive content about the books		



IDEA 1

IDEA 2

IDEA 3

IDEA 4

IDEA 5

Step 2:

**INDIVIDUALLY** (this is quiet time)  
write/draw **(AT LEAST)** 5 concrete  
solution ideas to solve a particular  
need – each on a separate post-it  
note.

**5 MINUTES**



IDEA 1

IDEA 2

IDEA 3

IDEA 4

IDEA 5

Step 3:

**SHARE** them with your team.  
Place each on the wall as you describe them

**10 MINUTES**

EMBRACE CONSTRAINTS  
THEY ARE LIBERATING

IDEA 1

IDEA 2

IDEA 3

IDEA 4

IDEA 5

Step 4:

**INDIVIDUALLY** (this is quiet time again) **TAKE** an idea from the wall and use it to **GENERATE** 2 more. **REPEAT**. Use all of your time. **5**

**MIN**

+

IDEA 1.1

IDEA 1.2

IDEA 1

IDEA 2

IDEA 3

IDEA 4

IDEA 5

Step 5:

**SHARE** them with your team.

Place each on the wall as you

**DESCRIBE** them **10 MINUTES**

+

IDEA 1.1

IDEA 1.2



**6. Organize your ideas. Look for patterns and relationships 10 min**

**RECORD YOUR WORK**  
**BUILD WITH THESE IDEAS**



**END**