Collaborative
CardPlay

As you get yourself situated,

please form yourselves into

working groups of 5-7 people

(sit by people who look friendly)

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Jeff, introduce yourself

Together we'll cover three subjects:

1. Discuss and practice card modeling

2. Basic types of card models and their uses

3. Modeling in collaborative work sessions

Models help build shared
understanding

Often when we verbally discuss ideas,
we may incorrectly believe we have the same
understanding

"I'm glad we all agree then"

Representing our ideas as models
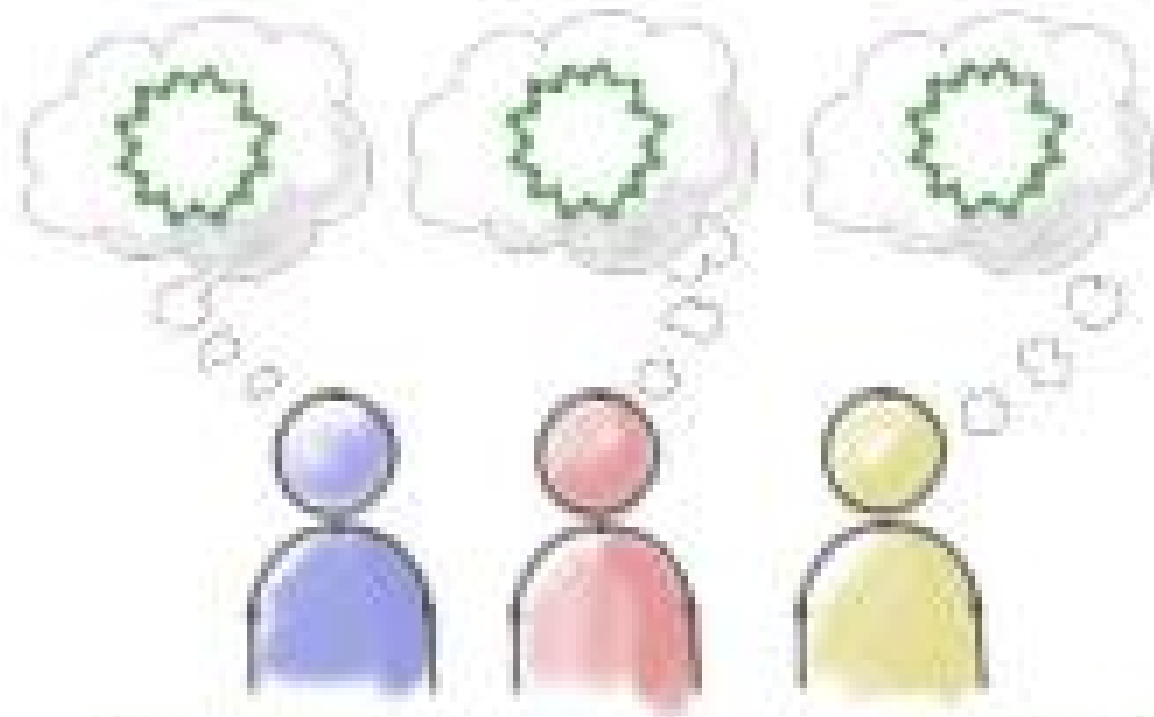## allows us to detect inconsistencies in our understanding

Through discussion and iterative model building we arrive at a stronger shared understanding

"ah ha!"

Using that common understanding we can work together to arrive at the same objectives

"I'm glad we all agree then"

Modeling using index cards or stickies

allows everyone to be involved,

and allows us to build a more malleable

model

It looks like this

Let's give it a try

Act I: Silent Brainstorming

Pick up 4 **blue** **or** **purple** index cards,

and a thick Sharpie® marker

When I say "go" write down your 3

favorite movies on the index cards

using the markers, one movie per card

Not yet – wait till I say "go"

Use the 4th card in case you make a
mistake, or choose to sneak in an extra
movie

Go!

Using a Sharpie® marker write your 3 favorite movies on **blue** **or** **purple** index cards, one title per card

Is everyone almost done?

Ok, pens down then.

If you haven't already, arrange yourselves into to work groups of 6 or so.

Say Hi to everyone in your workgroup.

(OK – that's enough of that.)

Together, as a group you'll build a
favorite movie model.

Act II: Modeling

Within your group and one at a time read your movies out loud to the group and place them on the table in front of you where you can all see them.

Working together, arrange the movies
by affinity – movies that seem similar
place together in a cluster, movies that
seem different place farther apart from
the others.

Really similar – really close,

Really different – really far apart.

Let's take a few minutes with this.

Go!

Within your group and one at a time read your movies out loud to the group and place them on the table in front of you where you can all see them.

Together arrange the movies by affinity – movies that seem similar, place together in a cluster. Movies that seem different place farther apart.

Really similar – really close, really different – really far apart.

Is everyone almost done?

Ok, stop modeling.

With luck you have a few piles, or

clusters of movie titles

Now, as a team, choose a suitable name

for each cluster.

It may be natural to think of simple categories – but instead, try to think of distilling statements like:

"Our team likes quirky comedies"

or

"We're not afraid to admit we like Disney movies"

or

"Mindless action films are rotting our brains"

Where categorizations label what's in a cluster, distilling statements stand-in for the cluster – distill it into meaningful information.

Together as a team, using a Sharpie®
marker and a **yellow** index card, write
a distilling statement for each cluster.

(Yes, one card all by itself counts as a cluster.)

Ready?

Go!

Together as a team, using a Sharpie®
marker and a **yellow** index card, write
a distilling statement for each cluster.

Good distilling statements stand-in for
the cluster – distill it into meaningful
information.

Is everyone almost done?

Ok, just one more step.

Act III: Prioritization

Now let's find important parts of our model by asking a question

"If you were stranded on a desert island with food, water, a bicycle powered DVD player, and 3 movies, what 3 movies would you want them to be?"

Wait! Don't answer yet!

Pick up three wrapped candies from the table.

(Any self respecting conference should have a small bowls of mediocre candies on the table)

Use the wrapped candy to vote.

Place your votes directly on the **blue** movie cards

(You can change your mind if you want – that's why we used candies as voting tokens.)

Go!

"If you were stranded on a desert island with food, water, a bicycle powered DVD player, and 3 movies, what 3 movies would you want them to be?"

Using three wrapped candies per person vote for your 3 movies.

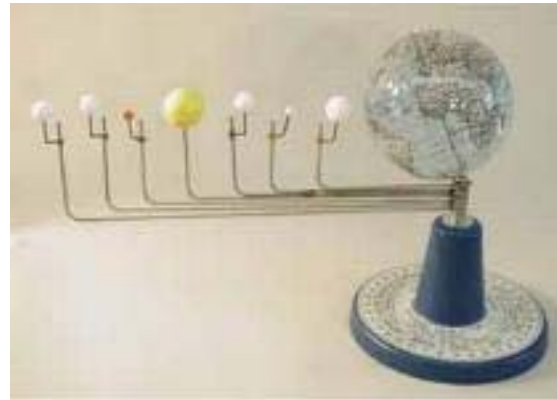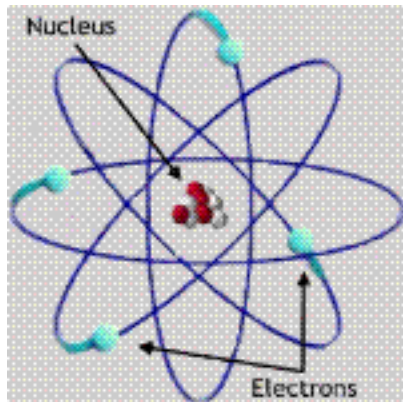Place your votes directly on the **blue** movie cards.

Whew!

Ok, we're done.

Let's talk about what we just did.

☀ A model is any visual representation of our current understanding of a concept

[a model is] a description or analogy used to help visualize something (as an atom) that cannot be directly observed
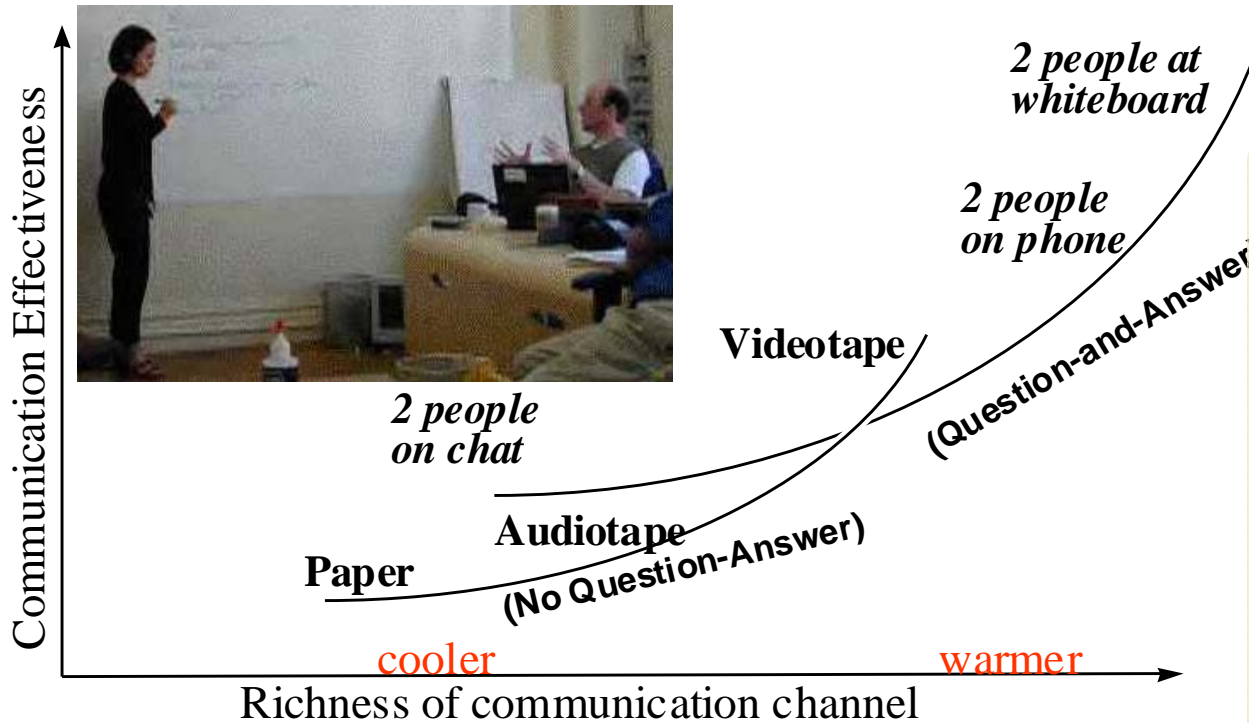
- Merriam-Webster on-line

For our purposes:

- a model is any visual representation of our current understanding of a concept

Working collaboratively in front of a model heats up communication

Face-to-face allows vocal, subvocal, gestural information to flow, with fast feedback

2 people at whiteboard

2 people on phone

(Question-and-Answer)

Videotape

2 people on chat

Audiotape
(No Question-Answer)

Paper

cooler   warmer

Richness of communication channel

(y-axis) Communication Effectiveness

In Cockburn's **Agile Software Development**, he describes how communication varies in temperature.

Increasing communication temperature is an important tenet of Agile Modeling.

Slide 22   ©Alistair Cockburn 2003

Card models fall into a couple common categories

- Affinity Diagrams
- Chronological Models
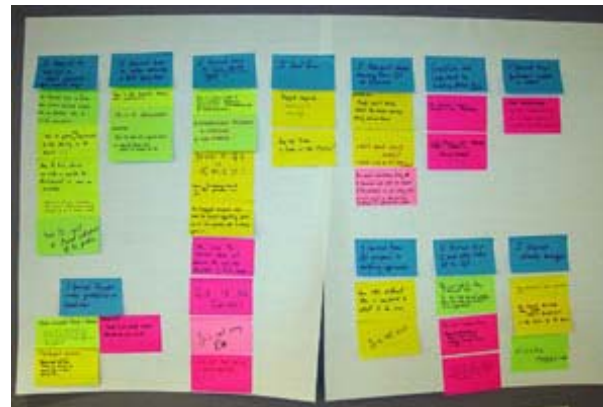- Decompositions
- Ad Hoc Charts

Mix and match as you see fit

Affinity Diagrams help distill and make sense of large amounts of information

Affinity Diagrams: cluster like information in columns or piles. Distilling statements summarize each pile to allow the consumer to quickly understand information, diving into details when necessary.

☀ Chronological models arrange information over time

Chronological Models: arrange ideas into a time sequence. They're great for quickly understanding and manipulating concurrency and dependency.

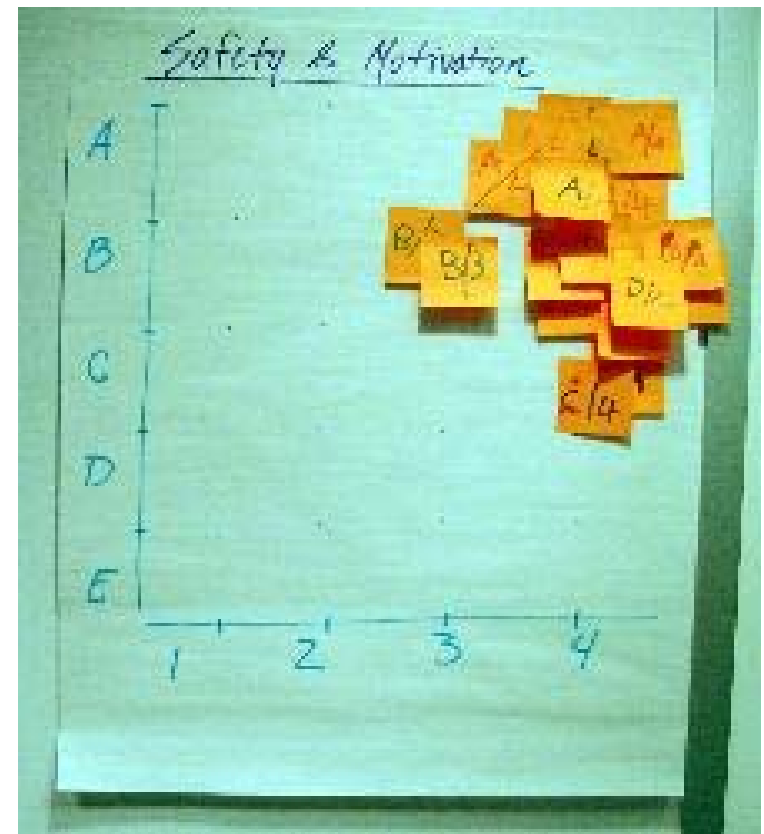## Decompositions help us visualize how ideas break down into smaller ideas

Decompositions: Decompose larger ideas into smaller ideas. Decompositions are built top down, unlike affinity diagrams built bottom up.

Ad Hoc Charts help visualize data

Ad Hoc Charts: can be assembled quickly from data gathered during collaborative work sessions

Card modeling can be used for a variety of purposes

Requirements & Functional Design

- Use Case Modeling
- Workflow Modeling
- Risk Modeling
- Business Goal Modeling
- Organizational & Technical Context Modeling
- User Interface Prototyping
- UI Navigation Map Construction

Project Management

- Blitz Project Planning
- Simple Work Plans

Technical Design

- Class Modeling (CRC Card Modeling)
- Sequence Diagrams

Meeting Facilitation

- Retrospective Notes
- Parking Lots
- Collecting Facilitated Interview Data

Blend model types and annotate models to accurately represent your ideas

Blend Models

- For example, chronological models with functional decompositions make excellent functional requirement maps

Annotate Models

- Use Sharpies™ and stickies to annotate your model with relationships between groups or ad hoc information discussed during the modeling session

Models provide excellent focal points for discussions

Prioritization and planning activities are effective when conducted over a card model

Guidelines for card modeling

1. Write a single idea per card

2. Write large and clear

3. Rip up cards

4. Write "out loud"

5. Everyone writes

6. Everyone touches cards

7. Arrange cards spatially

8. Model in color

Card modeling gotchas

1. Illegible cards

2. Participants are afraid to touch the cards.

3. Too many cards

Model in collaborative work sessions

Use Collaborative Modeling Sessions to:
- Build up tacit shared knowledge within the team
- Build communication and collaboration skills within the team
- Help the team to gel as an effective workgroup

Prepare
- Write a short statement to set goals and scope for the session
- Identify participants – 4-8 is ideal
- Fill these roles:
    - Information Suppliers
    - Information Acquirers
    - Information Modelers
    - Facilitator
    - Documenter
- Schedule & set up worksession facility

Perform
- Kickoff with goals and scope
- Get information figuratively and literally on the table using brainstorming or discussion
- Model the information to clarify, add details, distill details, and understand relationships
- Close by summarizing the results, on camera if possible

Document & Communicate
- Capture model with photo and/or movie
- Document as necessary
- Post in publicly accessible place
- Display as a poster

# ☀ Document models using photos or short movies

Models created during collaborative modeling sessions are **most meaningful to those who participated in their creation**

A **photo helps viewers recall** the discussion that occurred around the creation of the model

A **short movie where a modeler reviews the model** might stand in for more formal documentation
  - Keep movies less than 5 minutes
  - Interview modelers to help them remember to cover all the key points

Consumers of the model who didn't attend the modeling session likely need more formal documentation
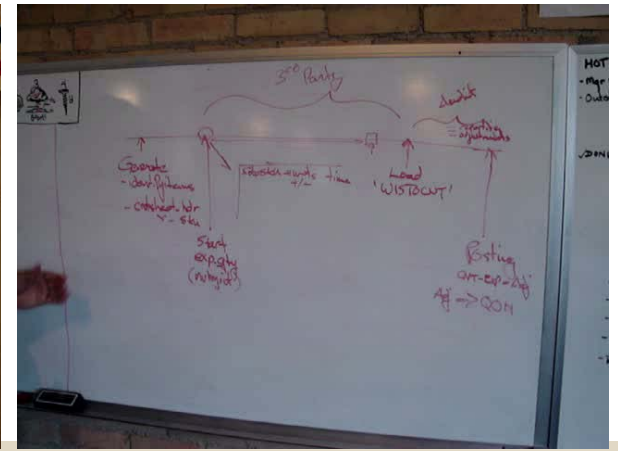
Card modeling collaboratively improves communication and builds shared understanding

And, it's more fun than modeling tools

Thanks for your attention and participation

JOIN THE REVOLUTION

Collaborative
CardPlay

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please form yourselves into

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Further Reading

Ambler, Agile Modeling, 2002, Wiley & Sons

Gottesdiener, Requirements By Collaboration, 2002, Addison-Wesley

Tabeka, Collaboration Explained, 2006, Addison-Wesley

For the most current version of these slides visit:
- www.agileproductdesign/presentations

For articles related to collaborative design and requirements see:
- www.agileproductdesign/writing

For more information on collaborative design and requirements see:
- www.outside-in-development.com
- www.collaborative-cardplay.com

Guidelines for card modeling

Write a **single idea per card**.

- Many of the opportunities we have with card modeling come from exploring the relationships ideas have with each other. We need to manipulate ideas independently. Writing more than one on a card connects the ideas and takes the opportunity with it.

Write large and clear.

- The people you're communicating with need to be able to read what you understood when you wrote it. You need to be able to read and refer back to it later in the conversation, days, or weeks later.

Rip up cards.

- If an idea is bad, incorrect, a card is poorly written, or cluttered with too much scribbled out and rewritten text, destroy it. Bad ideas written on cards in conversations are dangerous to have hanging around. Don't you wish you could get bad ideas out of your head this easily?

Write out loud.

- As you write, say what you're writing. Collaborators will detect when what you write doesn't match what you say and call you on it. Another strange thing happens: later when you go back to read the card, you'll be able to picture and hear the person who wrote it and what they said at the time. Brains are pretty interesting recording devices.

Guidelines for card modeling (2 of 3)

Everyone writes.

- Make sure stacks of cards and pens are available on the table to allow others to write. No need to slow the conversation down to the rate that one person can write. Most people can listen to a discussion while writing. Allowing others to write turns on other parts of their brains, their tactile parts, and helps them relate to and understand the information being discussed. One thing to be aware of, lots of people writing at the same time is much the same as lots of people talking at the same time. After a while no one is listening or reading and collaboration stops.

Everyone touches cards.

- Place the cards close to people you're collaborating with so they can easily reach out and touch them, change their order, or tear them up dramatically for effect, making sure the flying shreds don't put anyone's eye out. If you're facing someone across a table, place the cards on the table so they read right-side-up for that person. Or, even better, consider moving to a corner position around the table so you're sitting to the side of your collaborator - that way the card can read right-side-up for both of you.

Guidelines for card modeling (3 of 3)

Arrange cards spatially.

- Don't let cards pile up in meaningless arrangements. Try to place them in an arrangement that makes sense. Even if they're simply placed in the order they were discussed, that's better than a pile. Once you start arranging you'll find a natural tendency to let the importance and similarity of ideas influence your arrangement. When this happens you get information almost for free from the arrangement chosen.

Model in color.

- Use different colors of cards to represent different kinds of ideas. Adding color to your model adds another channel of communications and another layer of information. If you find an idea written on one color of card should have been another, rip it up and rewrite it. If you're listening to someone and writing down ideas as they speak them, change colors as their ideas change type. They'll catch on.

Plan to preserve the card arrangement.

- You can do this by covering a table top with poster paper and taping the cards down when you're done. Alternatively use double-stick tape on the back of cards and stick them directly to paper on the table or mounted to a wall.

Card modeling gotchas

Illegible cards

- These cause the information to be ignored or misunderstood. Think of illegible cards as mumbled conversation. Don't do that either.

Participants are afraid to touch the cards.

- If a meeting facilitator is the only one handling cards then be concerned your participants aren't really engaged in the conversation. Be concerned that they don't really believe what's being written. Be concerned that they have information they could be sharing by changing arrangement or text on cards, but aren't. Try to make the environment safe to do so by inviting them to write a card or tear one up. I often pretend to be busy with something else and ask them to do so, or invite someone who suggests a change of card positions to do it themselves. Once they start, they don't stop.

Too many cards

- Like too many ideas, too many words are hard to work with. Consider narrowing the scope of the conversation or raising the abstraction level to talk less about details and more about general concepts. Use different colors of cards to add more channels of communication. Identify focal or key ideas in the model, and annotate the model appropriately.