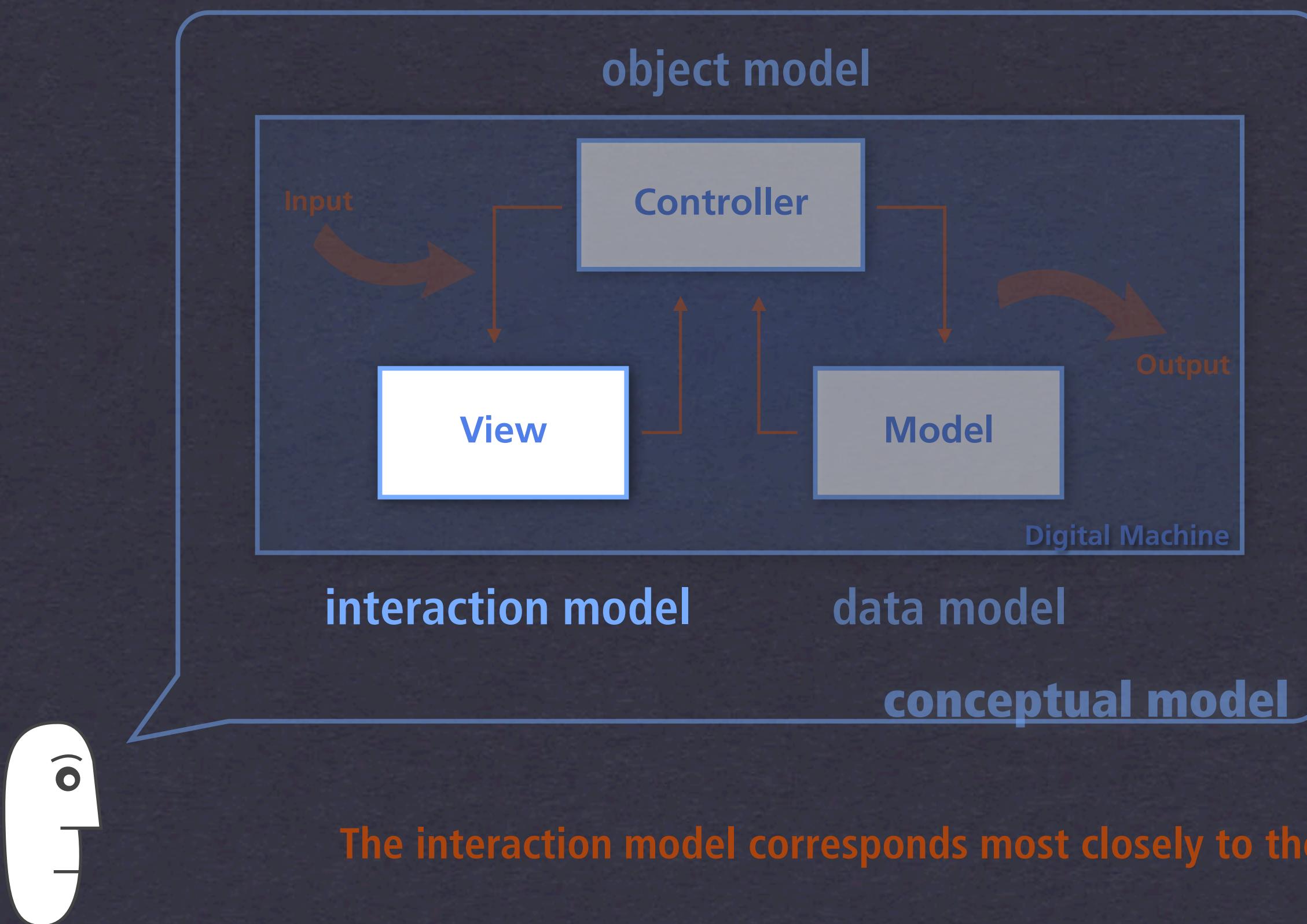


Interaction Model

How do I use this thing?

Nº 4, *Design of Digital Machines*
Tim Sheiner

The four sub models of the machine



First, a definition:

By a state of a system is meant any well-defined condition or property that can be recognized if it occurs again. Every system will naturally have many possible states.

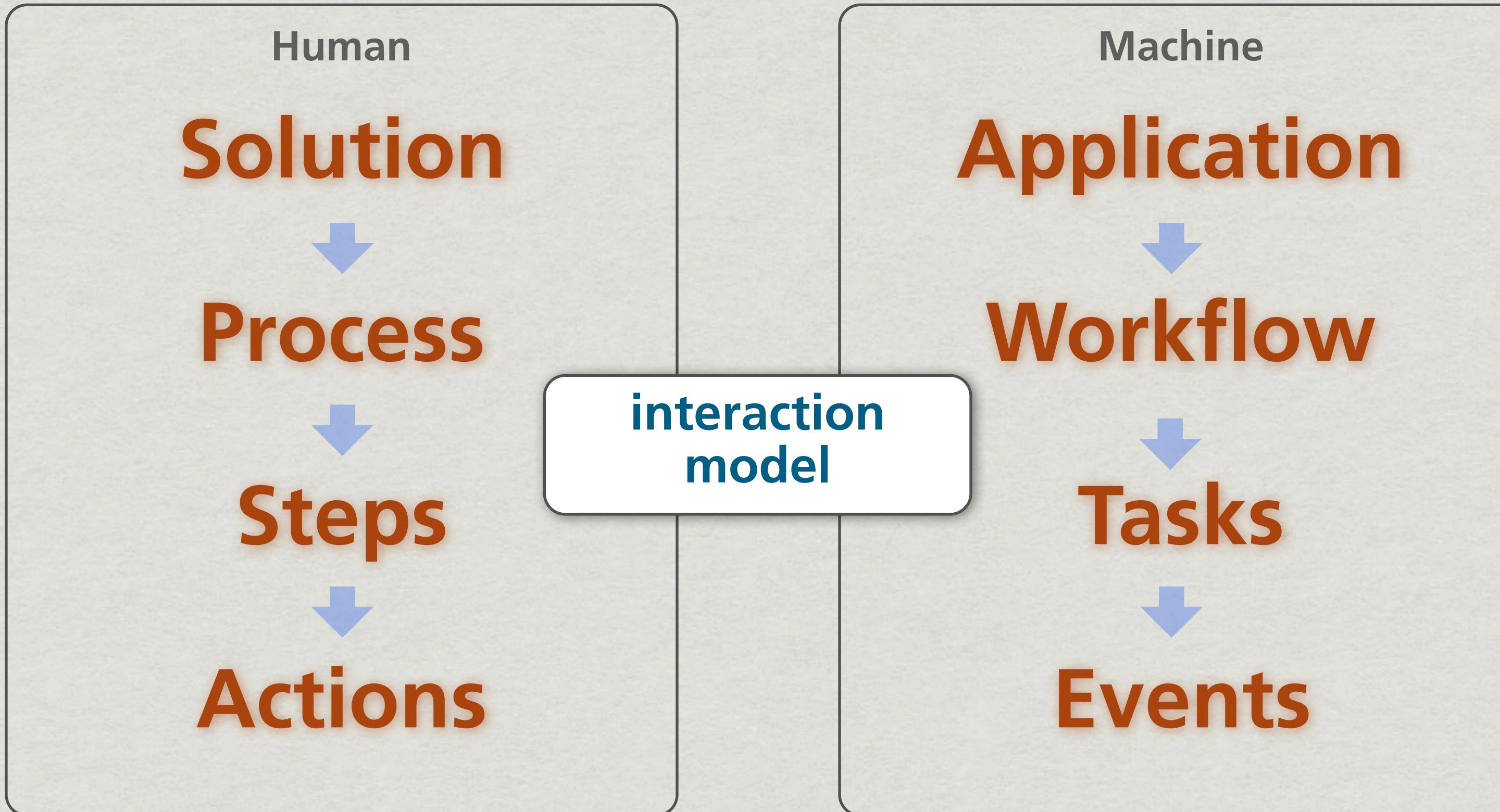
Ashby, An Introduction to Cybernetics, 1956

How do I make a change?

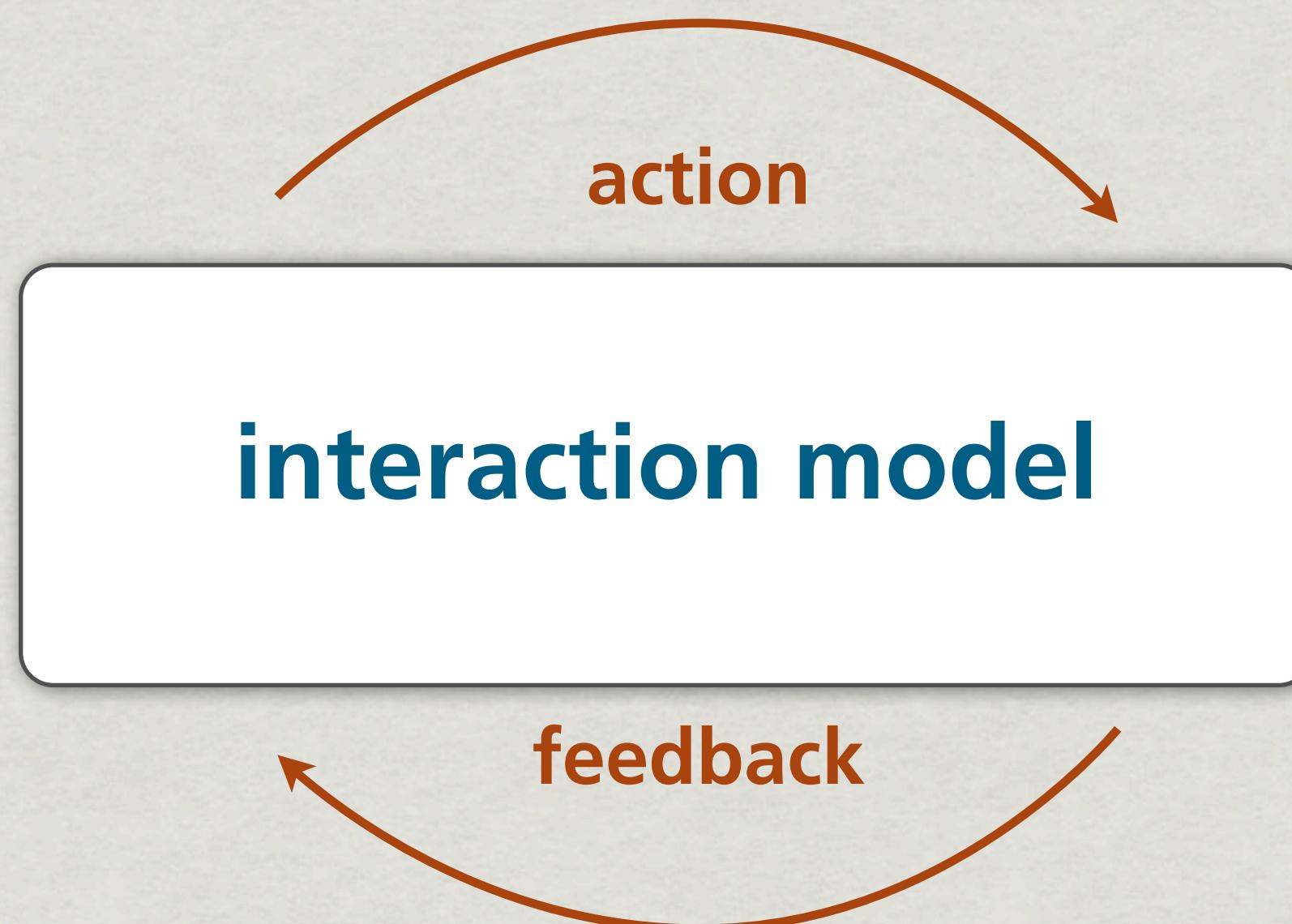
The interaction model defines how to manipulate system state

- how do I interact with the system?
- what are the workflows?
- how can I influence outcome | output ?

The union of two perspectives

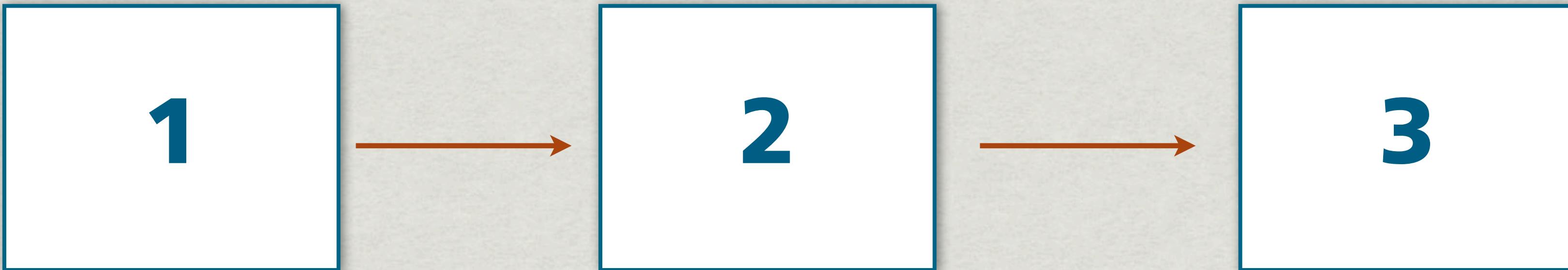


In a nutshell...

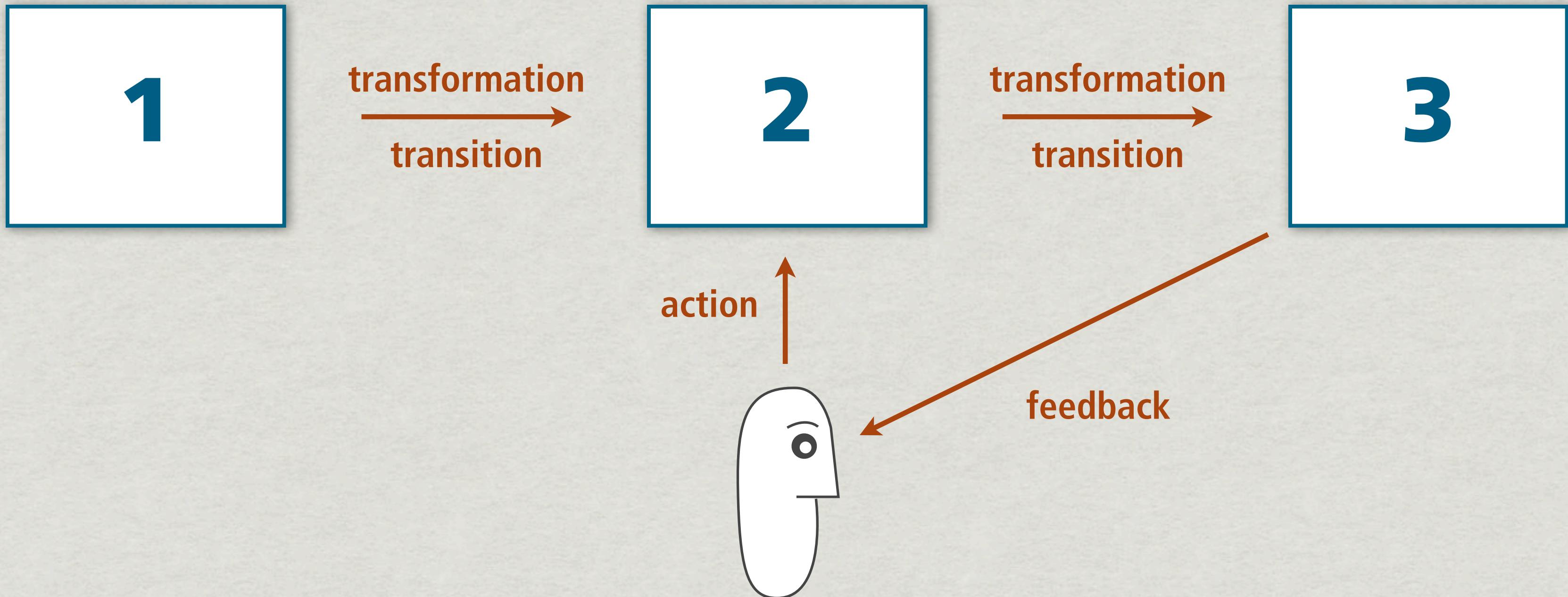


The interaction model is
organized around workflows.

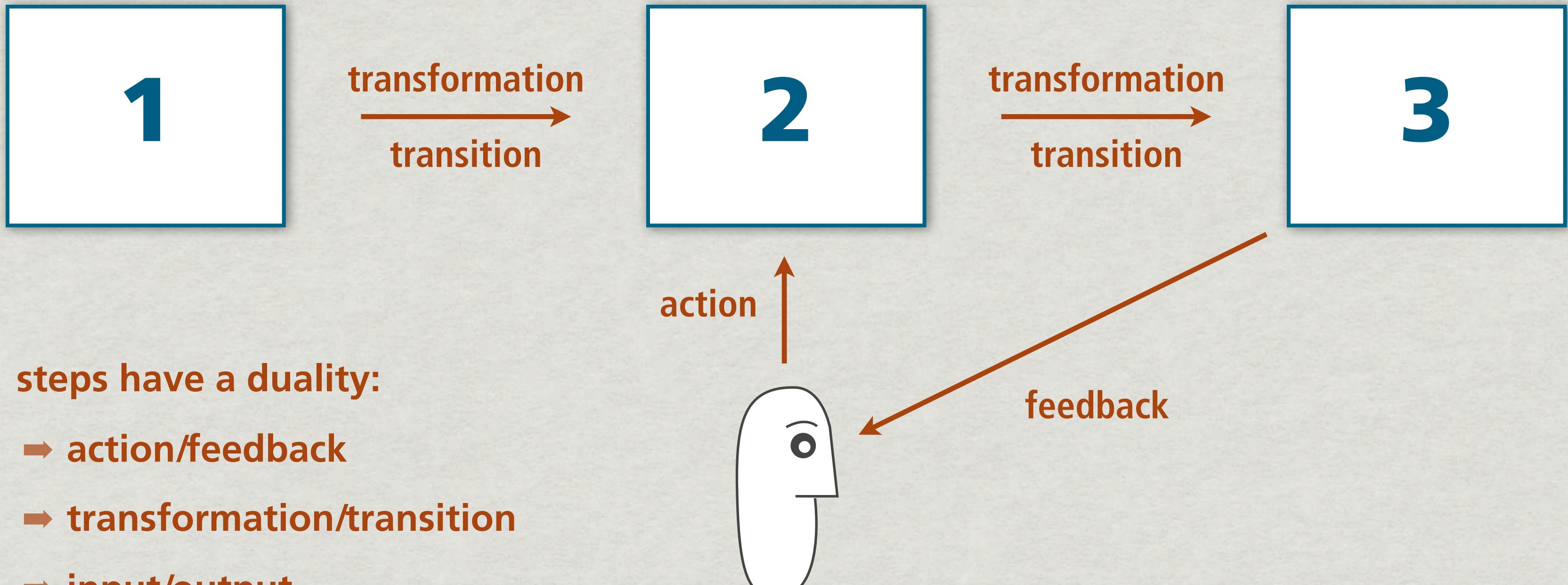
Workflows are sequences of steps



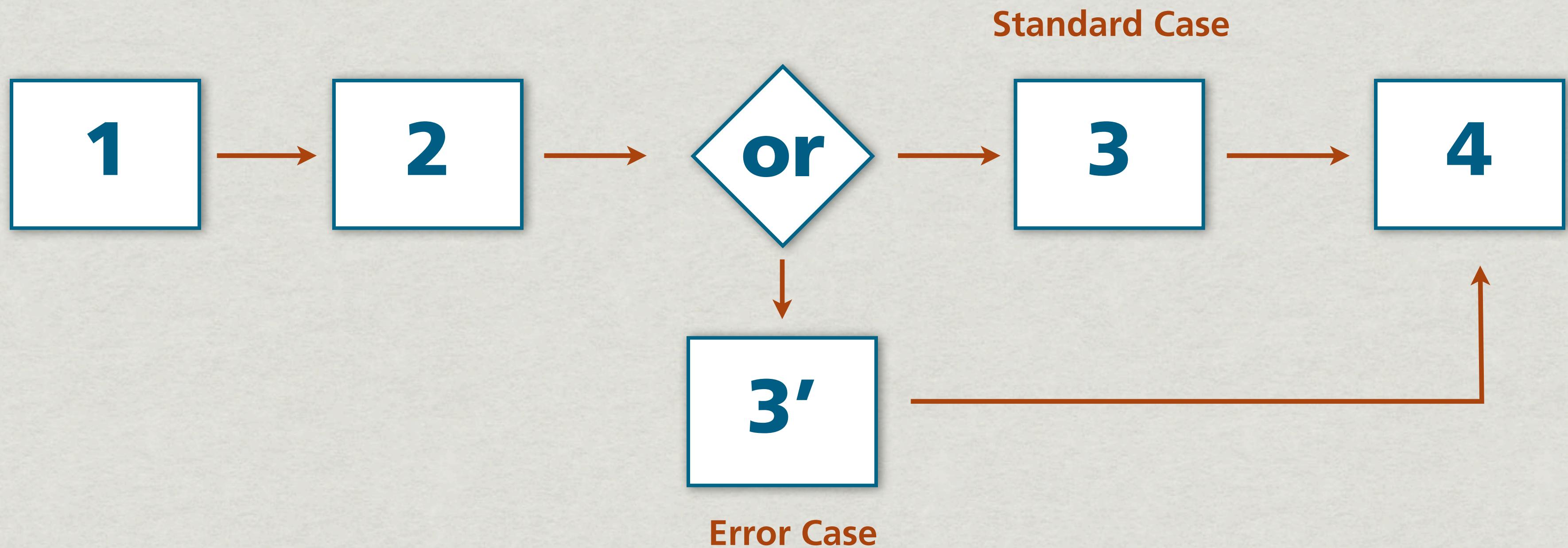
Steps have a duality



Steps have a duality

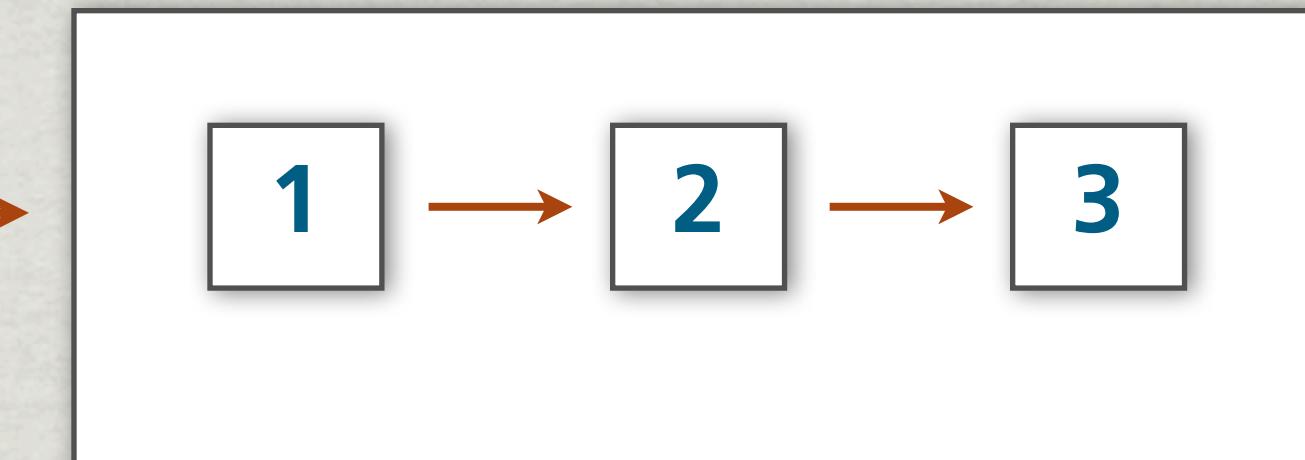
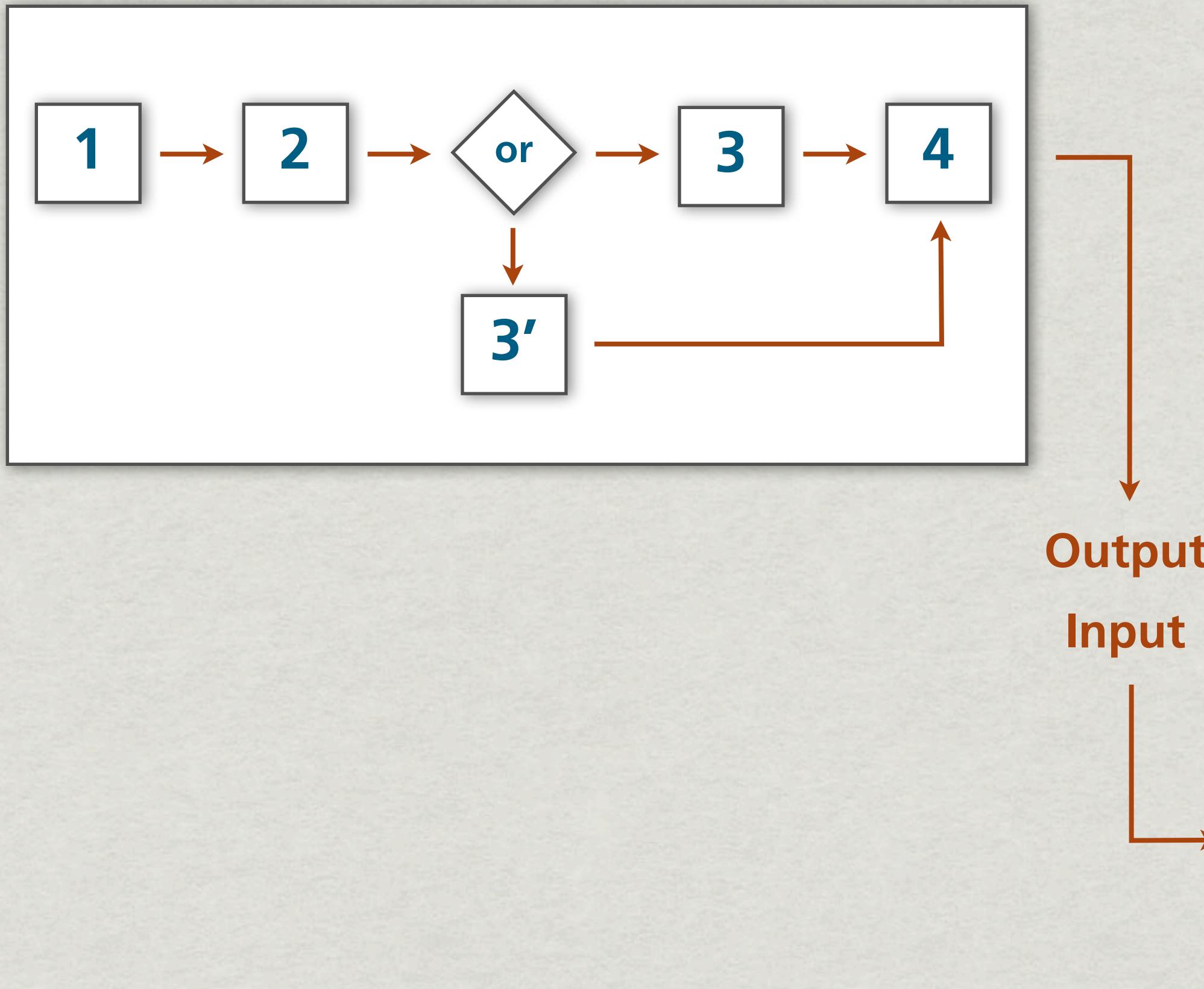


Workflows branch



Workflows connect

Workflow A



Workflow B

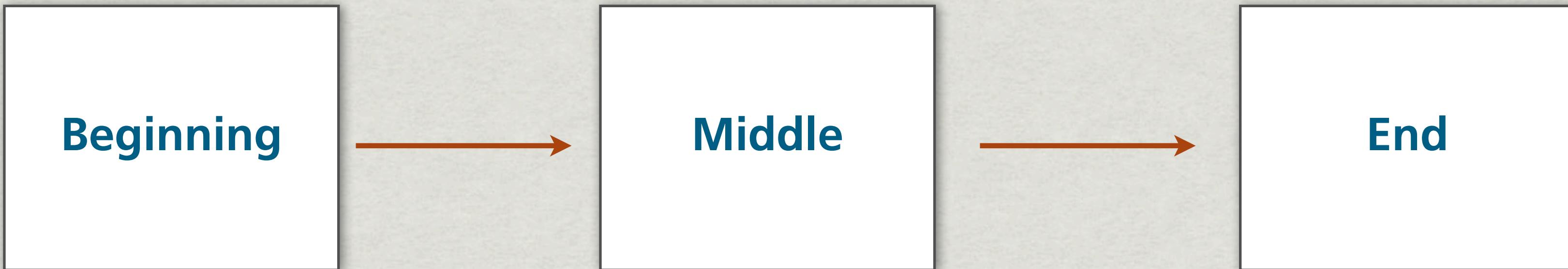
What defines a workflow?

Desire for change

Change complete.

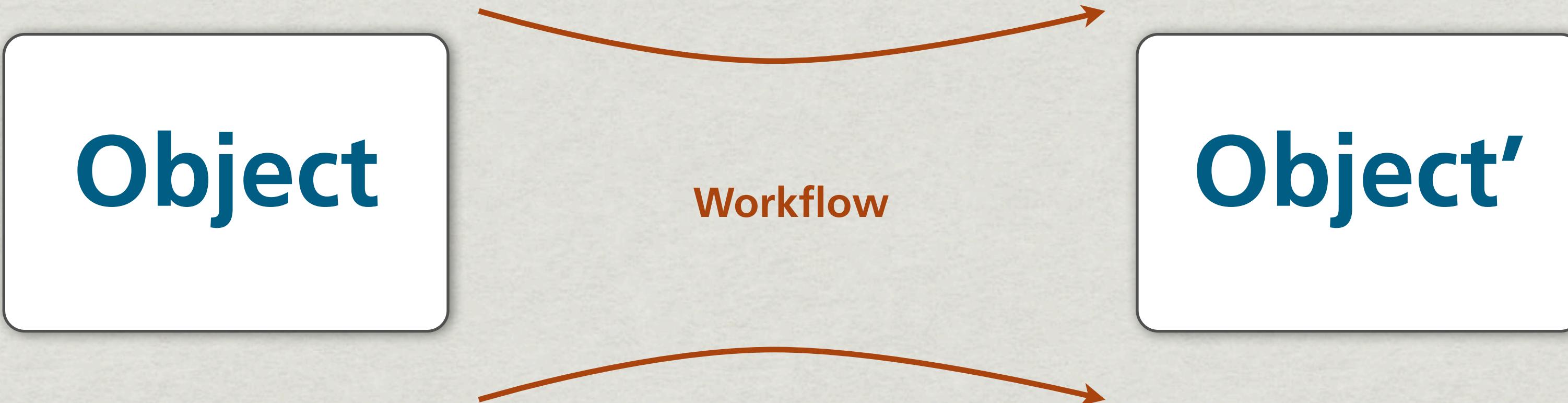
What defines a workflow?

A Narrative



What defines a workflow?

A Transformation



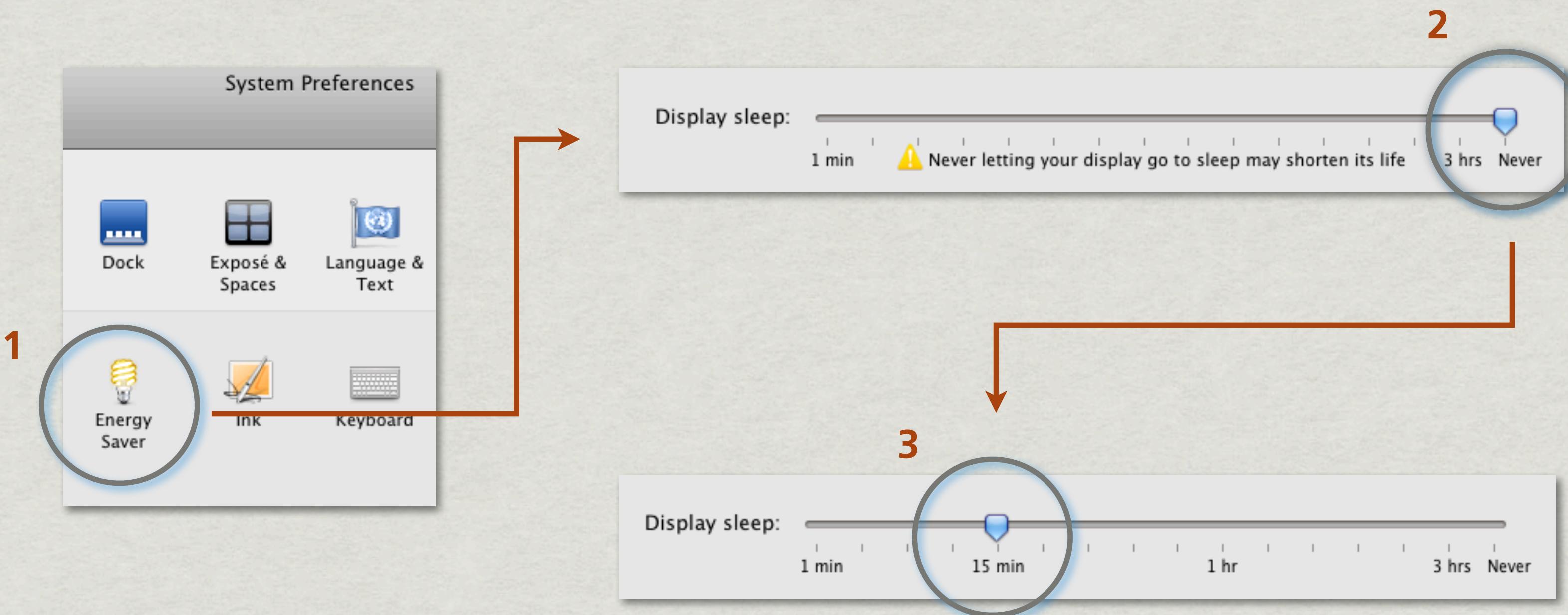
Workflows transform objects.

A transformation is a change in state



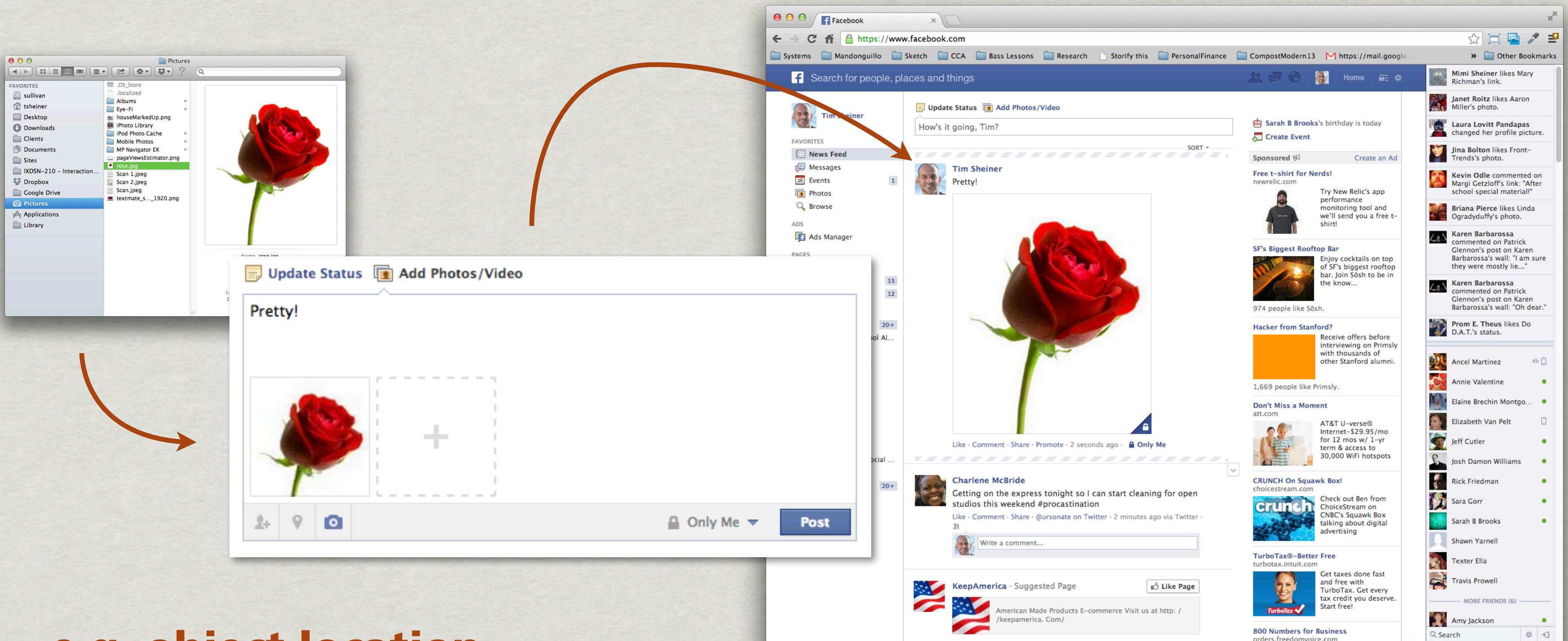
e.g. object appearance

A transformation is a change in state



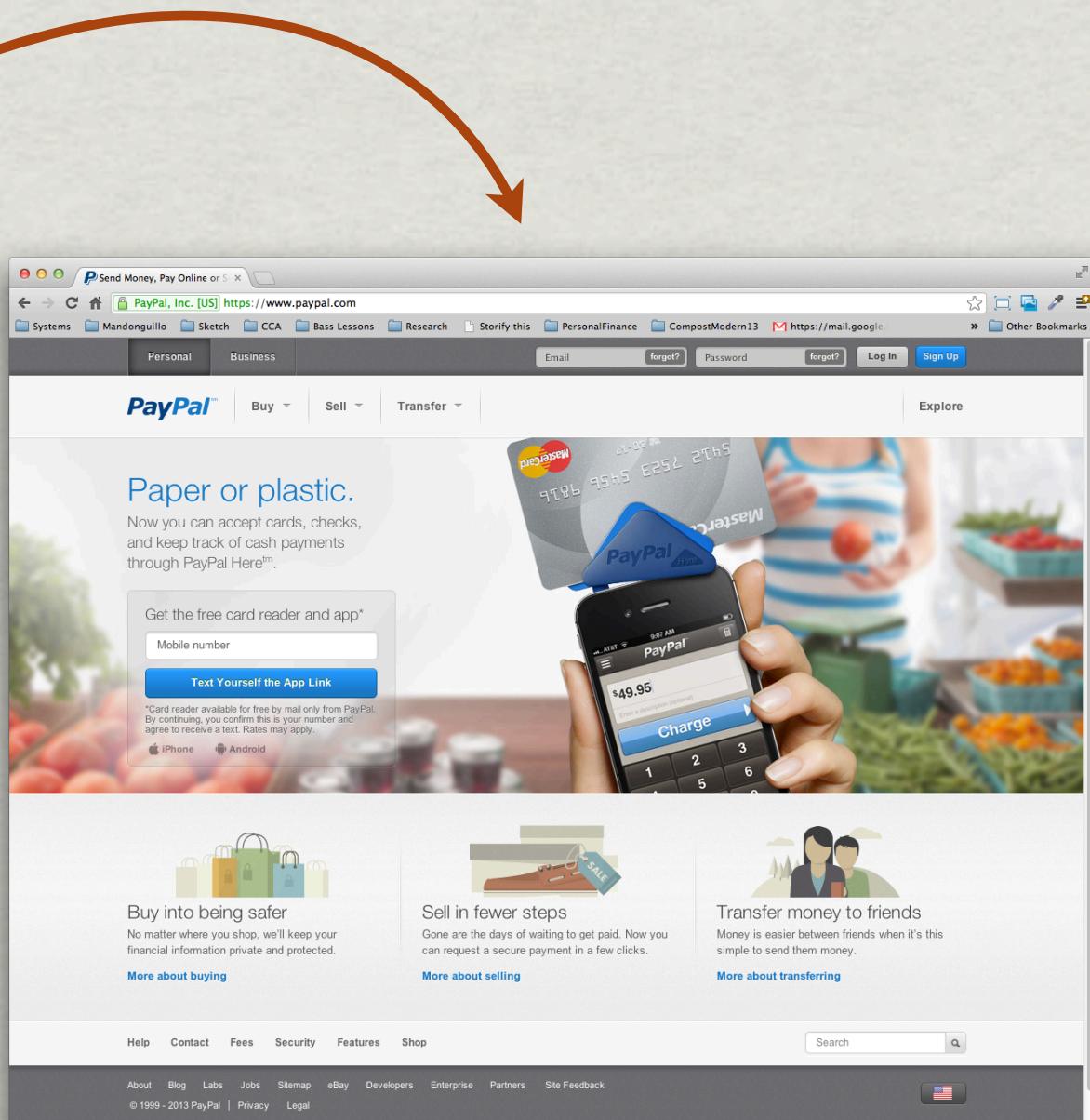
e.g. object behavior

A transformation is a change in state



e.g. object location

A transformation is a change in state



e.g. object value

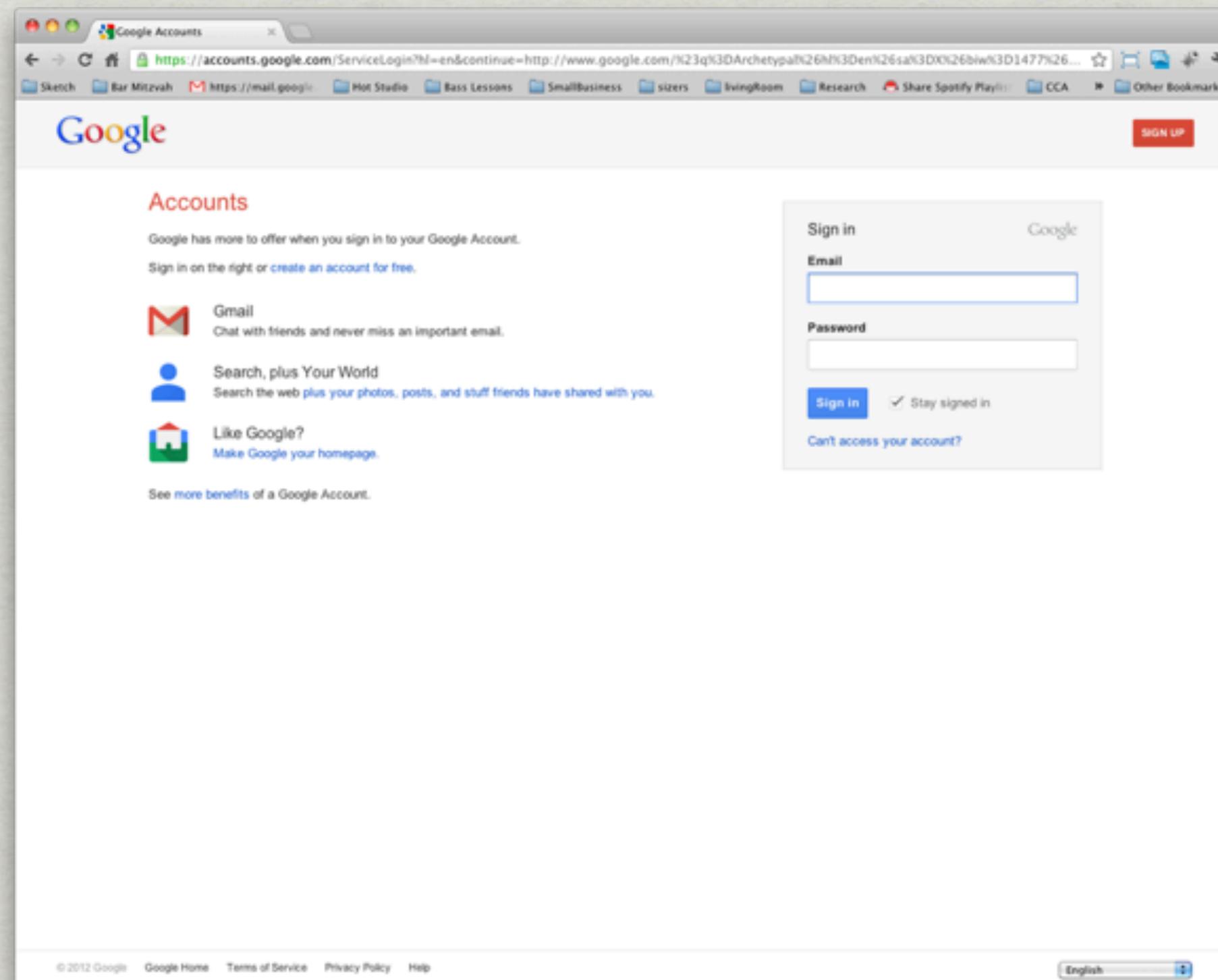
The transformation is the change.
The transition is the feedback.

Archetypal Workflows

- authentication
- content creation
- content management
- sharing
- permission management
- configuration management

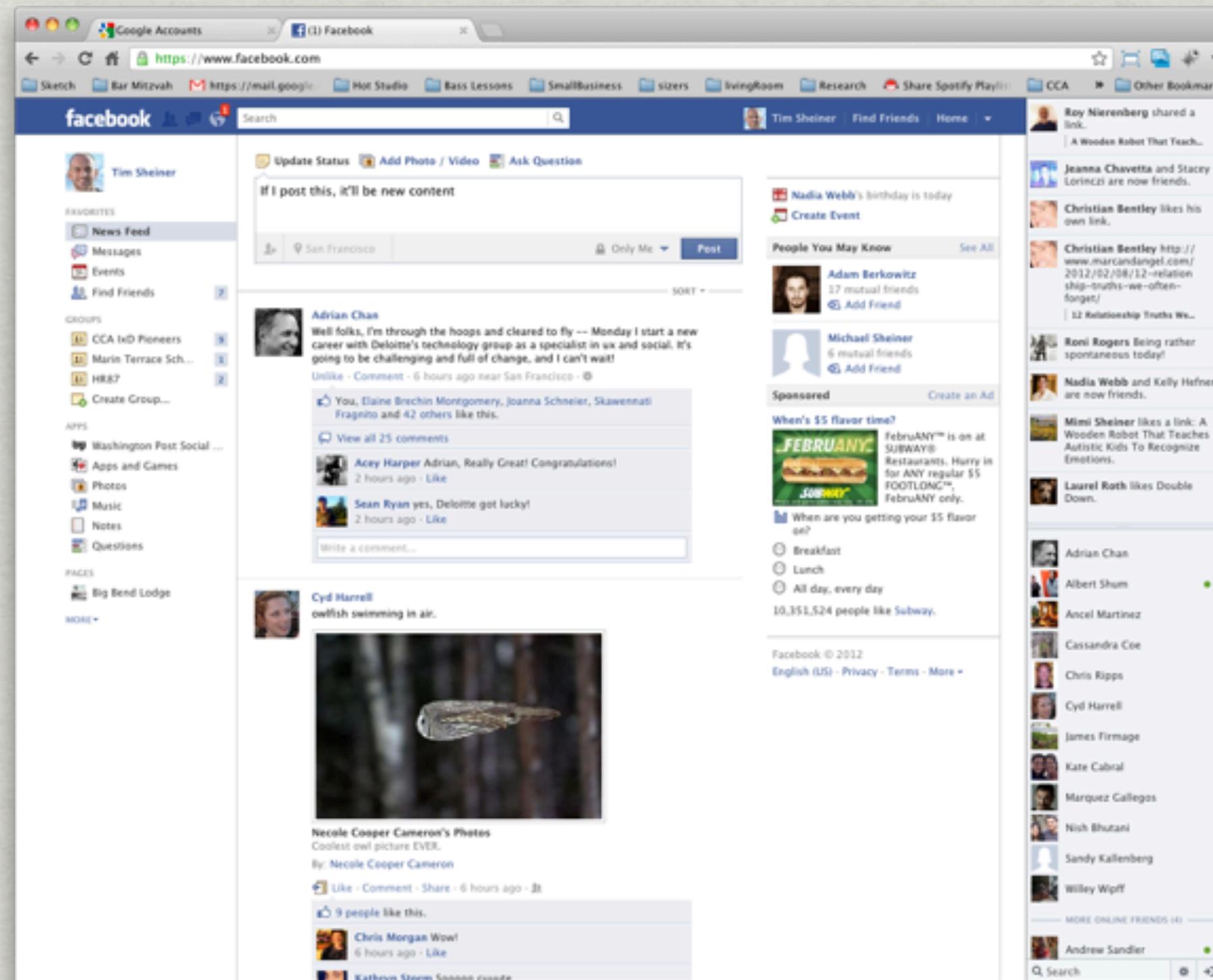
Authentication

Providing credentials in order to access content or functionality



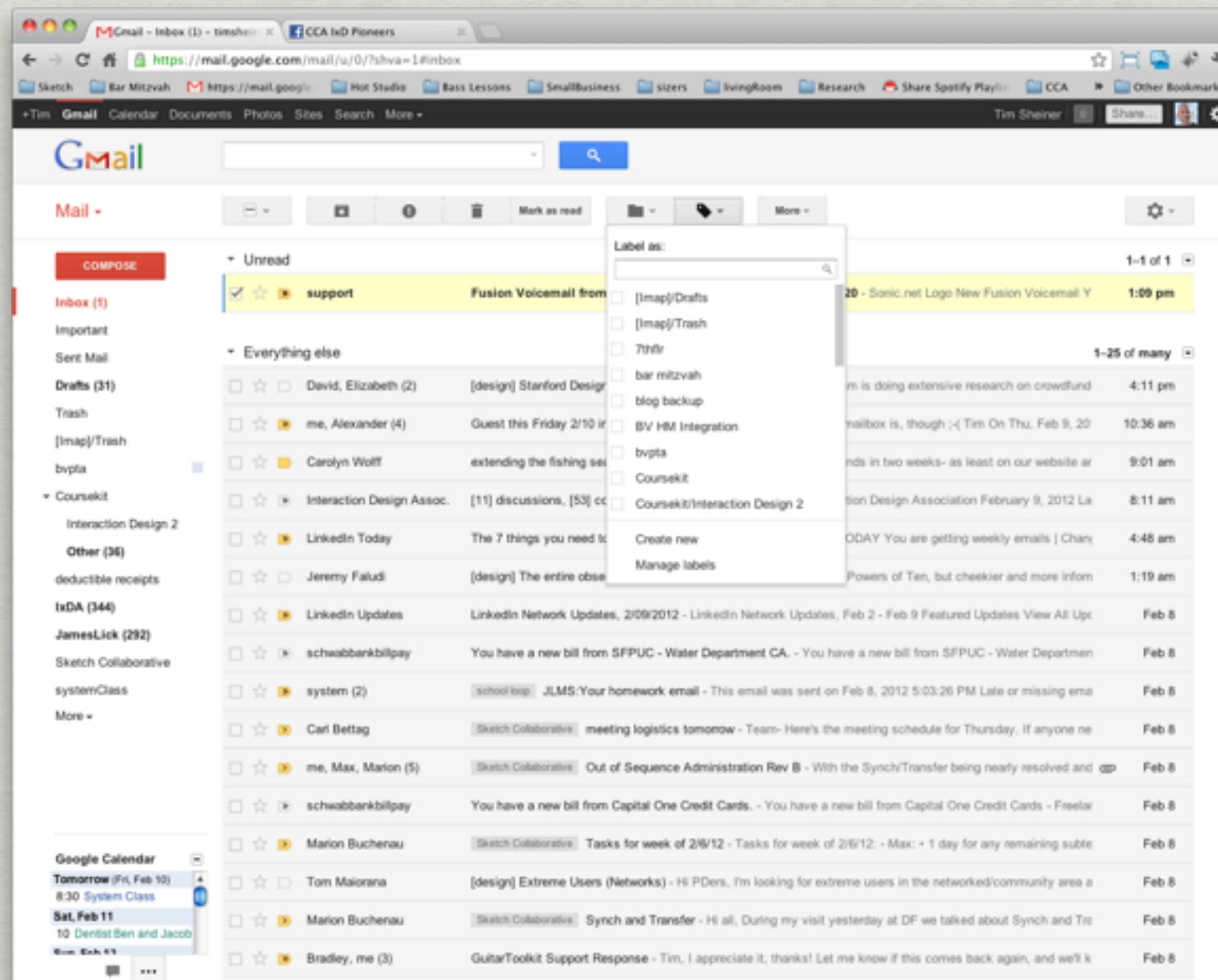
Content Creation

Adding new information



Content Management

Organizing information



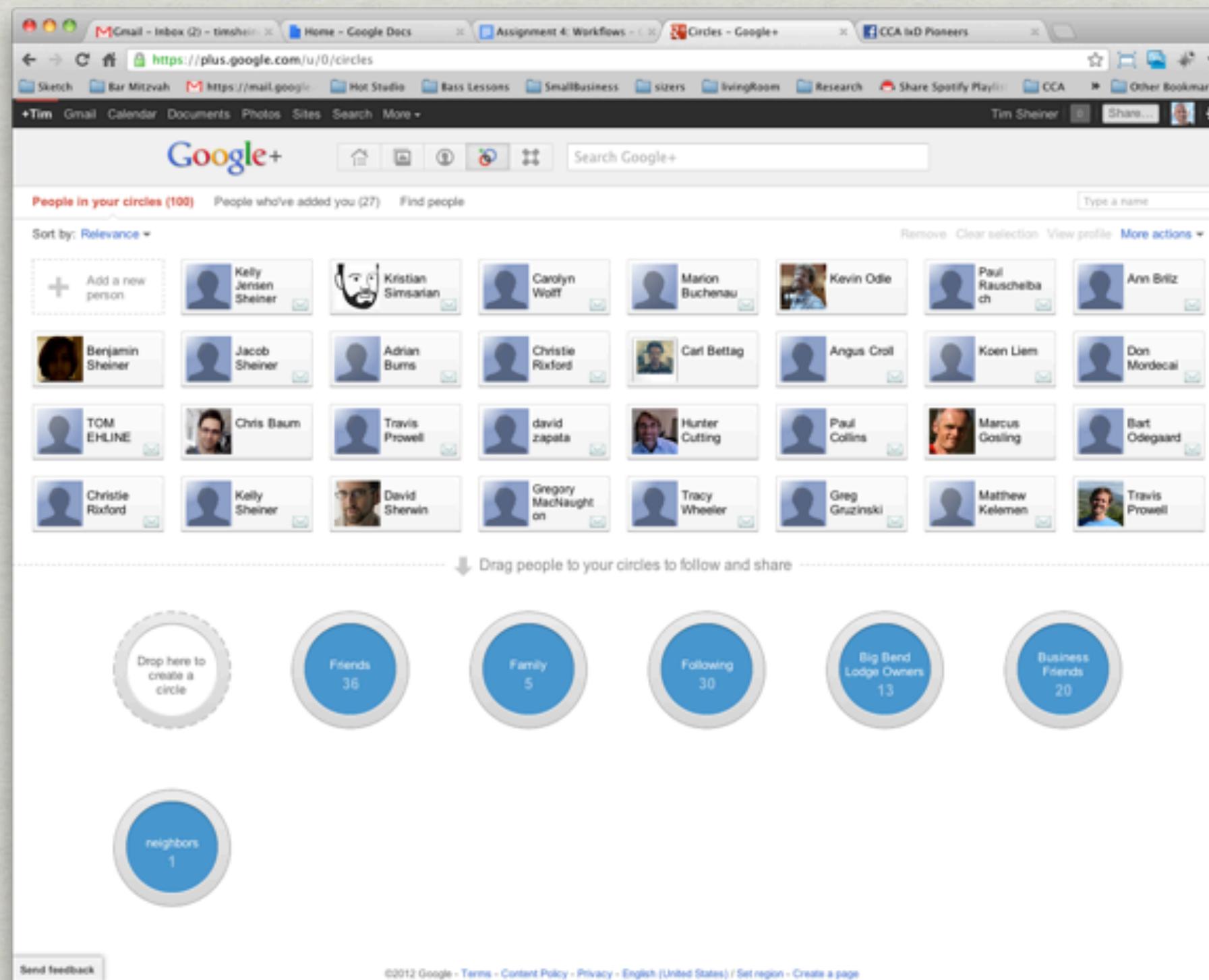
Sharing

Making content or resources available to others



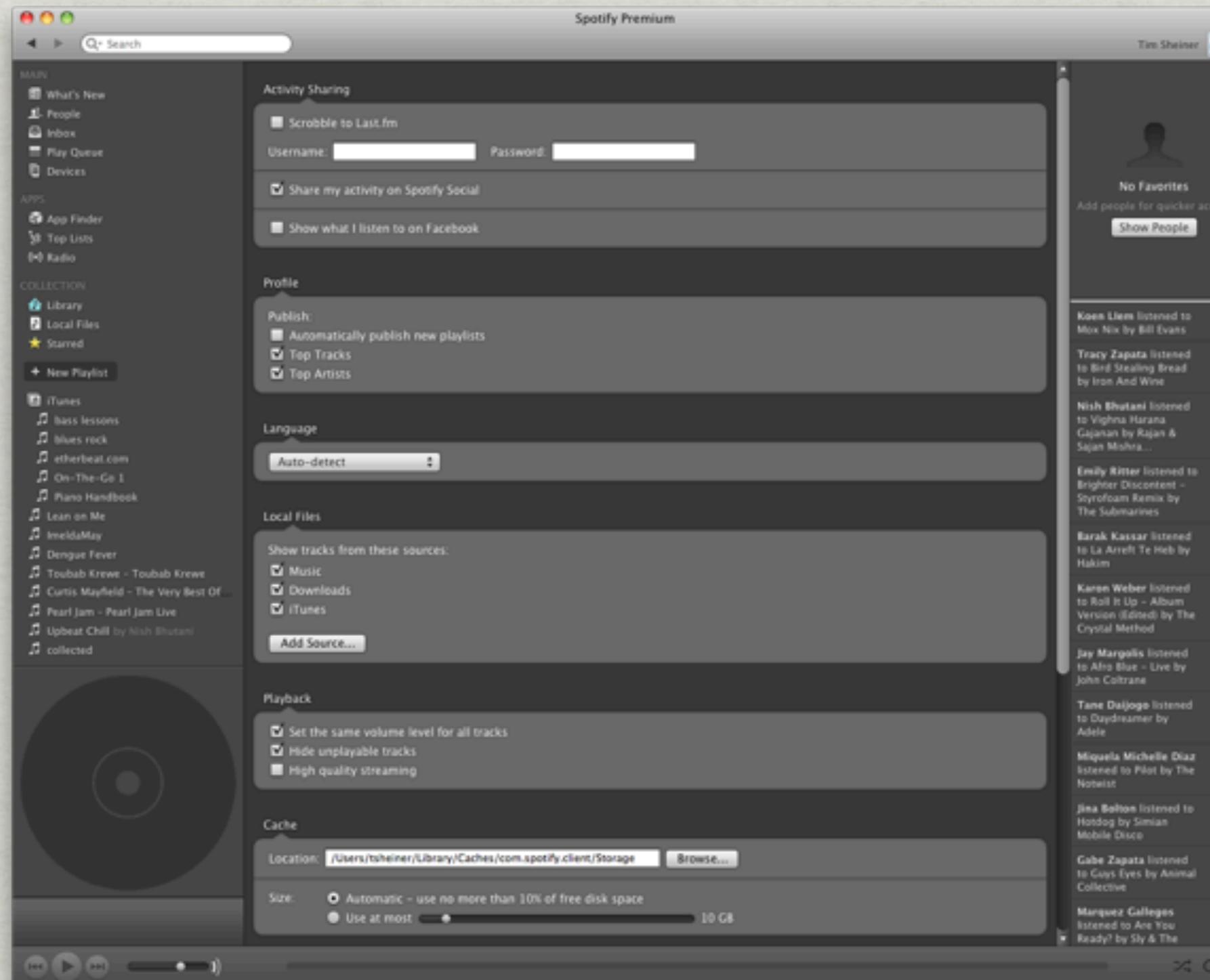
Permission Management

Controlling access to content or resources



Configuration Management

Setting behaviors or preferences



Communicating the Interaction Model

Several standard forms

- flow diagram
- written scenario
- storyboards
- wireframes
- prototypes

Interaction Modeling Challenges

- **Including the error model**

when things go wrong what happens?

- **Imagining the permutations**

why prototyping is lowers design risk

- **Understanding when & where state changes**

operating on the object or operating on a copy?

fin