Seven Stages of Action
Learning Goals

- Know how to apply Norman’s Seven Stages of Action
- Avoid the gulf of evaluation and execution
Seven Stages of Action

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there should be light!

the gulf of execution

the gulf of evaluation

a brighter world

a dark world
there should be light!

the gulf of execution

a brighter world

the gulf of evaluation

a dark world
perceive the state of the world
interpretation
interpret the perception
plan sequence of actions
goals
evaluate the
execute the action sequence
intend to act
perceive the state of the world
execute the action sequence
plan sequence of actions
intend to act
Seven Stages of Action
Niels Henze
Why Niels Can't Record

Seven Stages of Action

1. perceive the state of the world
2. interpret the perception
3. evaluate the interpretation
4. set goals
5. clean up phone
   - delete trash, cache, videos
6. perform actions on my phone
   - couldn't record long videos
   - video very short
   - my phone is not recording
7. record long videos

Niels Henze
Evaluation and Design Questions

- Avoid the gulf of evaluation
  - Can the user tell what state the system is in?
  - Can the user tell if the system is in the desired state?
  - Can the user map from the system state to an interpretation?

- Avoid the gulf of execution
  - Can the user tell what actions are possible?
  - Does the device easily support required actions?
  - Does the interface help with mapping from intention to physical movement?
Implications on Design

- Critical points
  - Forming inadequate goal
  - Not knowing the appropriate action
  - Not finding the correct action
  - Receiving inappropriate feedback

- Principles of good design
  - System state and actions are always visible
  - Good conceptual model with a consistent system image
  - Interfaces include good mappings that show the relationship between stages
  - Continuous feedback to the user
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