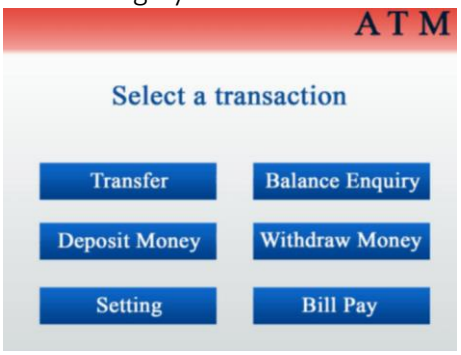
# ENSE – Lecture 1 – January 7th 2025

- About Good Design
  - **Discoverability** – Can folks figure out what actions are possible with the technology and how to perform these actions

Lacking discoverability

Highly discoverable




  - **Understandability –** Can folks understand what it all means after they perform actions.

The ATM was highly understandable: What its used for and how it works, what you can do.

- **High-Functionality Applications (HFAs) –** Serving the need of large and diverse user populations
  - Understanding ease of use, thresholds (difficulty to learn) and ceilings (Benefits/possibilities that you can do with it)

<u>High threshold, low ceiling</u>

- *High Threshold* – Not easy for people to get used to technology
- *Low Ceiling* – Difficult finding the possibilities of what the technology can do

<u>Low threshold, high ceiling (GOAL)</u>

- *Low Threshold* – Easier to learn
- *High Ceiling* – Provides a lot of value through its capabilities

<u>High threshold, high ceiling</u>

- *High Threshold* – Difficult to learn
- *High Ceiling* – Provides a lot of value through its capabilities

<u>Low Threshold, low ceiling</u>

- *Low Threshold* – Easier to learn High ceiling: Provides a lot of value through its capabilities
- *Low Ceiling* – Difficult finding the possibilities of what the technology can do

  - Clifford Nass's 2 groups of users: beginners and experts (transition in between)
  - Jef Raskin's 1 type of user: know something or don't know

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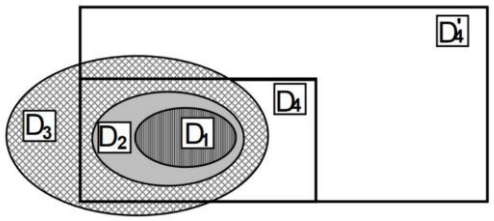


D4' – Experiences/Functionality provided by system (Provides for user)
D1 – Concepts that are well known, easily employed, used by customers regularly
D2 – Vaguely known concepts, often required passive help, not used often
D3 – Concepts users believed to be in system
D4 – Topics and ideas users expect to be in system

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80% people 20% engineering

Do not focus on just solving the problem with technology, UNDERSTAND THE CLIENT, the USER

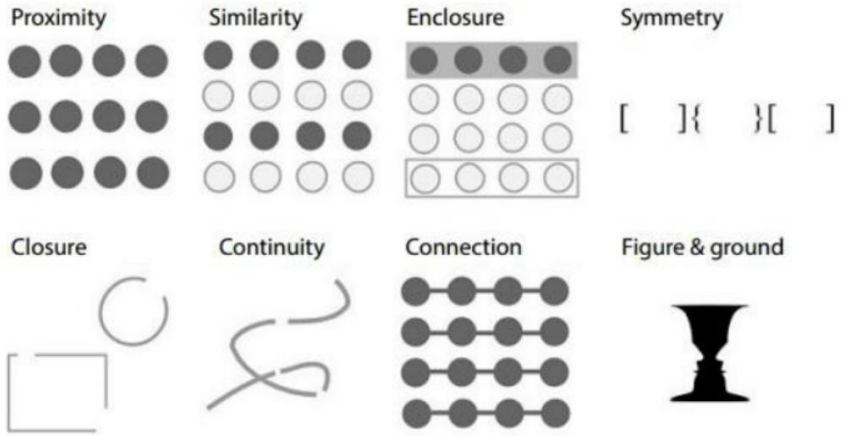
Craft understanding of people and process should precede focus on technology

Three mile island accident (Wasn't peoples fault, but design not designed for people)

- Human (People)-Centered Design (HCD)
    - Roles & specializations (80% people, 20% design)
    - Utility (Perceived usefulness)
    - Usability
        - Learnability (How easy to learn)
        - Efficiency (Optimized path)
        - Memorability (How easy to remember)
        - Errors (How to recover)
    - Desirability/Delight (Satisfaction/pleasurably)
    - Experience (subjective, how people remember their interactions)

- **Back to understandability & discoverability:
  - Understanding
    - Leads to a feeling of control, mastery and pride
    - Highly emotional, powerful
  - Discoverability
    - Affordances – ["Is for" (chair affords support)] & information pickup (What actions are possibly)
    - Signifiers – Overlaps affordances (What is possible), signifiers state where those actions take place
    - Mapping – Improving understanding and discoverability (Video game controller)

Gestalt Psychology




    - Feedback – Must be immediate or people give up, instructions. Poor feedback can be worse than none.

- Conceptional & Mental Models
  - Simplified explanation
  - Aids in designing "delightful" interactions (folders, "in the cloud")
  - Created by designers & users in collaboration (80:20 Rule)

- Great Design
    - Great designers
    - Pragmatic programmers
    - Great management and leadership
    - Satisfying customer and skilled workers (multiple disciplines working together), support them

**Emotional Intelligence Domains and Competencies**

| SELF-AWARENESS | SELF-MANAGEMENT | SOCIAL AWARENESS | RELATIONSHIP MANAGEMENT |
|---|---|---|---|
| Emotional self-awareness | Emotional self-control | Empathy | Influence |
| | Adaptability | | Coach and mentor |
| | Achievement orientation | Organizational awareness | Conflict management |
| | Positive outlook | | Teamwork |
| | | | Inspirational leadership |