

HCI

Human Computer Interaction

Bi9100

Ergonomics and Applied Anthropology

Concept of HCI

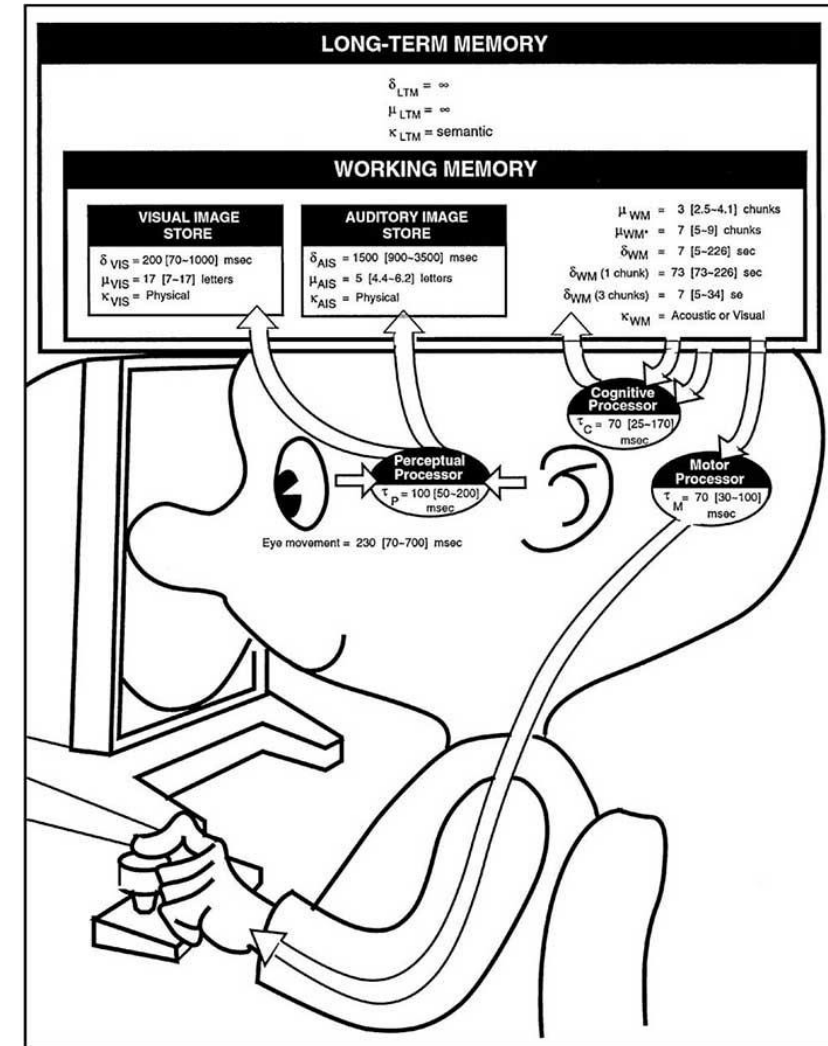
- 1980's
- Specialty area in computer science; cognitive science/human factors
- Usability for non-specialists – personal computers

Windows

Star Wars

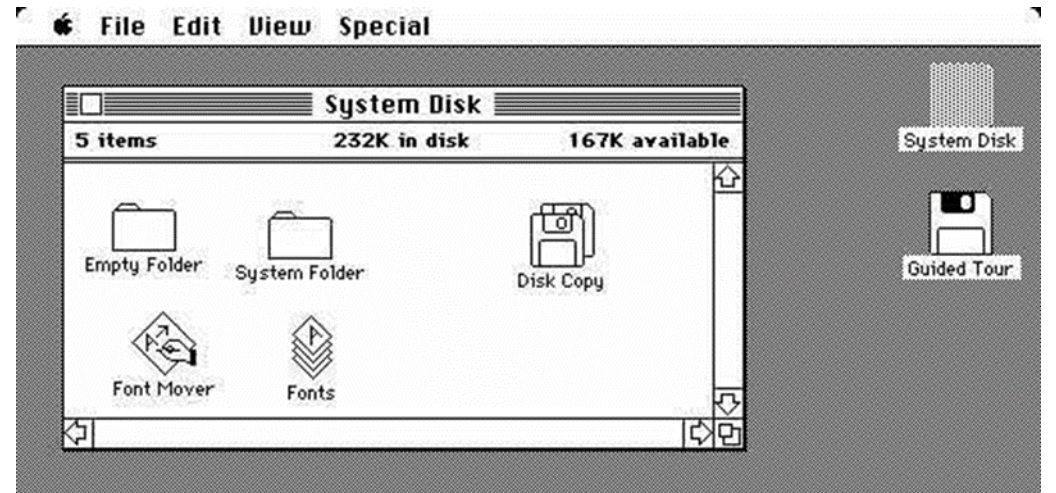
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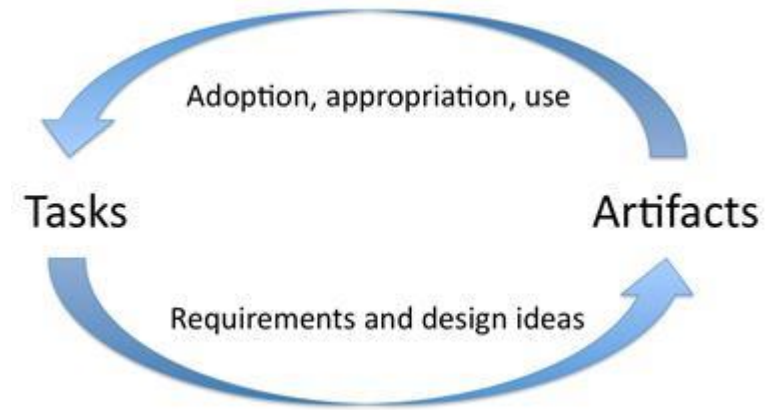


HCI

- Graphical interface – control – design
- E-mails, social networks – communication *through* computers
- Diversification and ubiquity – notebooks, handheld devices



HCI

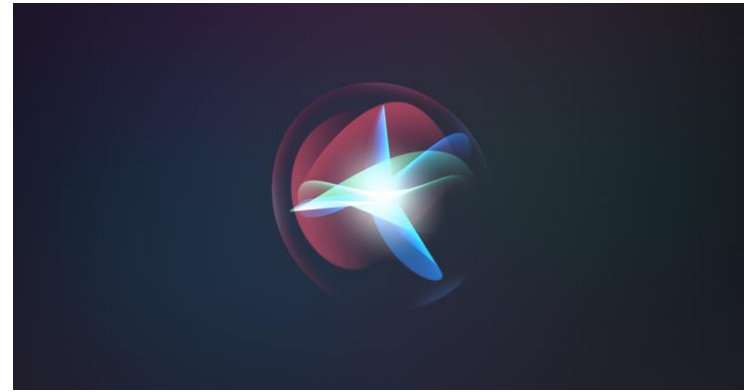


- Ergonomic appliance design



HCI

- Communication
- Perception
- Organization

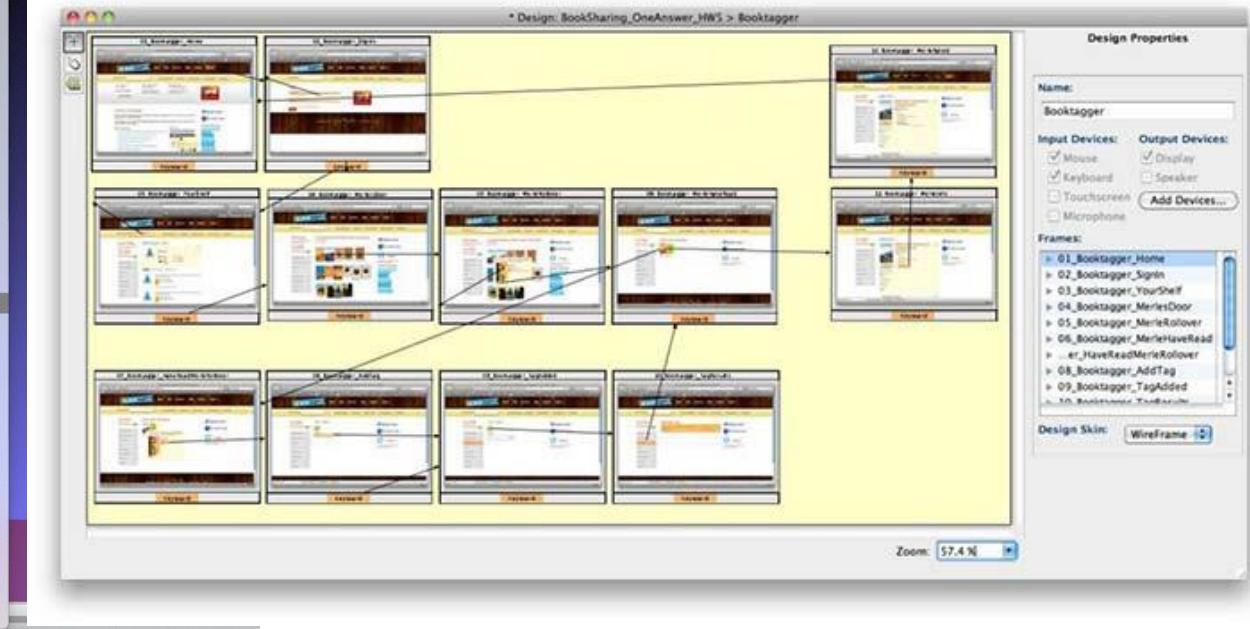
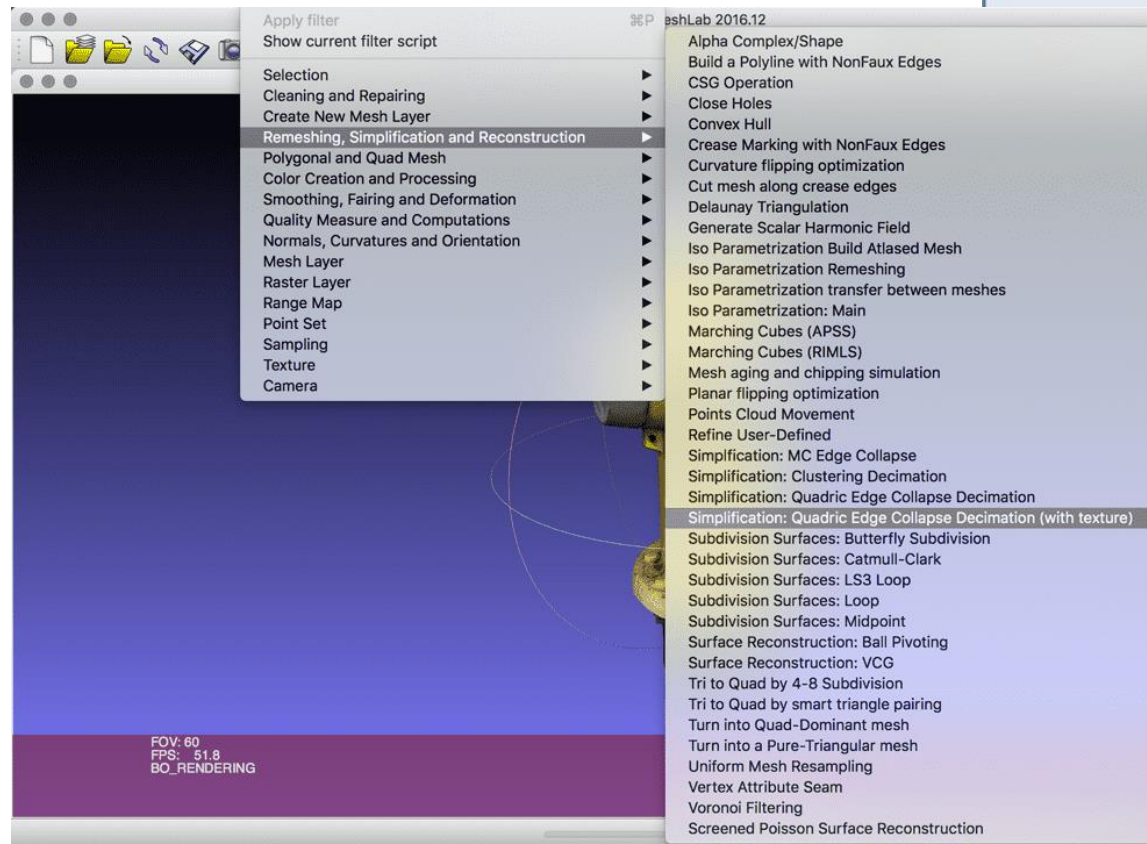
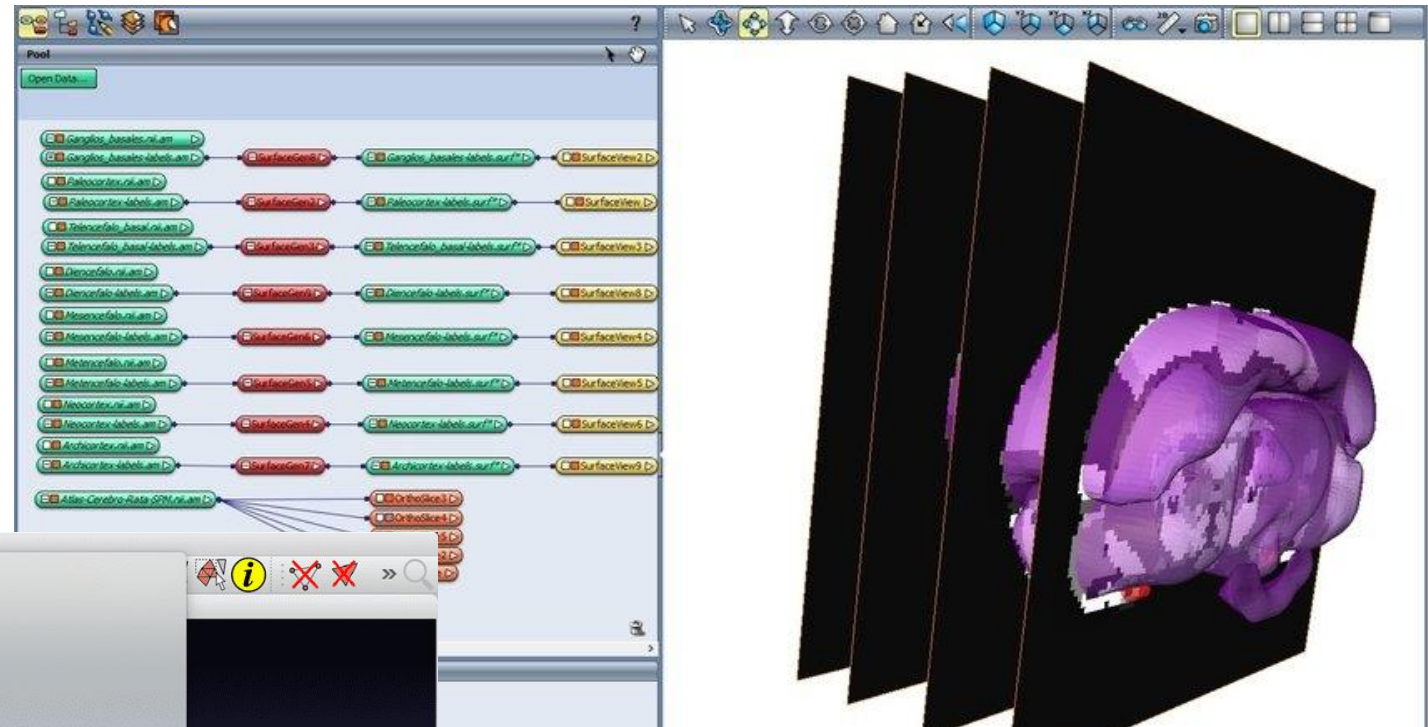


Speak now



HCI

- Effective application design



HCI

- User requirements
- Questionnaire
- Interview (structured, semistructured)

Questionnaire method

- Preferences
- Behaviors
- Facts

- Question types
 - Dichotomous – two options
 - Polytomous – more than two (ordered or unordered options)
 - Continuous – scale (Likert scale – Strongly agree---Strongly disagree)

- Open ended questions (incl. sentence completion)

- Face to face (more like a structured interview)
- Paper and pencil/computerized

Questionnaire construction

- Statements used should be clear, concise and interpreted in the same way by members of the sample of interest
- After a list of possible answers include an open answer
- One aspect of the construct per item
- Positive statements, no double negatives
- Only one question per item
- Avoid bias, leading questions

Questionnaire construction

- Question flow – from least to most sensitive, general to specific, factual/behavioral to attitudinal
- Logical sequence

Screens

Warm-ups

Transitions

Skips

Difficult

Classification

Standardized interview

- Structured interview
- Often fixed choice of answers

- Semi-structured interview
- Open, allowing new ideas
- Framework of themes
- Pre-arranged design – interview guide

- Time consuming analysis