SWE 503 | Lec 6 | Sep 9, 2025

# **Cognitive Aspects of HCI**

Dr. Omar Hammad

Watch this video..

https://www.youtube.com/watch?v=KB\_ITKZm1Ts

### In today's lecture:

- The full picture of the rest of the course
- Introduction toCognitive aspects
- Attention

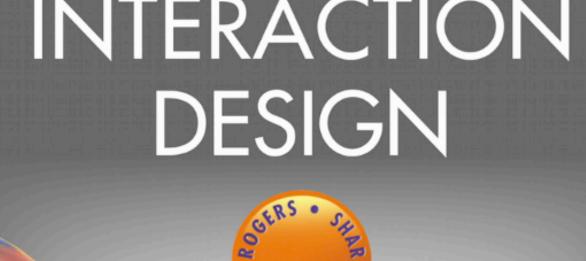
### Full picture:

1. Discover: ???

2. Define: ??

3. Develop: ??

4. Deliver: ??





beyond human-computer interaction

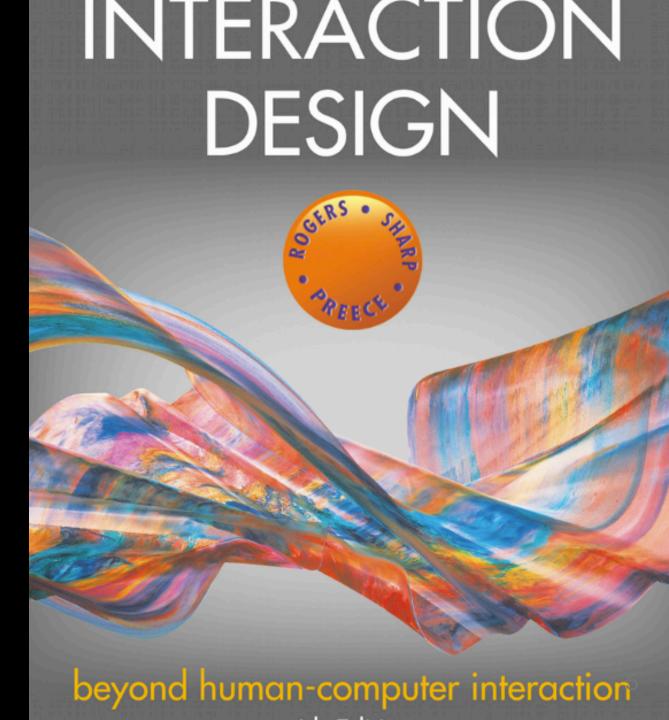
### Full picture:

1. Discover: Ch 4, 5, 6, 8

2. Define: Ch 9, 10, 11

3. Develop: Ch 12, 13

4. Deliver: Ch 14, 15, 16



# Remember the three core principles of HCI?

### Remember the three core principles of HCI?

Early focus on users and tasks

Empirical measurement

Iterative design

Understnad what in users ??

~ 5 minutes

## Answer the following question on a piece of paper.

# What was your proposal subfield?

# What is today's date?

# y equals 2 times x minus 2. And you're given that x equals 3. So, what's the value of y?

$$y = 3x - 2$$

$$x = 2.5$$

# What was the slide color of the "What is today's date?"

Today we will start with

# Cognitve aspects

What is ??

### **Cognitve aspects = Mental processes**

Such as .. ??

## Cognitve aspects

Attention Memory Perception Decision Thinking ...

They are all interconnected..

#### Find the price of a double room at the Holiday Inn in Bradley, Pennsylvania

			Area		Rates	
City	Motel/Hotel	code	Phone	Single	Double	
Charleston	Best Western	843	747-0961	\$126	\$130	
Charleston	Days Inn	843	881-1000	\$118	\$124	
Charleston	Holiday Inn N	843	744-1621	\$136	\$146	
Charleston	Holiday Inn SW	843	556-7100	\$133	\$147	
Charleston	Howard Johnsons	843	524-4148	\$131	\$136	
Charleston	Ramada Inn	843	774-8281	\$133	\$140	
Charleston	Sheraton Inn	843	744-2401	\$134	\$142	
Columbia	Best Western	803	796-9400	\$129	\$134	
Columbia	Carolina Inn	803	799-8200	\$142	\$148	
Columbia	Days Inn	803	736-0000	\$123	\$127	
Columbia	Holiday Inn NW	803	794-9440	\$132	\$139	
Columbia	Howard Johnsons	803	772-7200	\$125	\$127	
Columbia	Quality Inn	803	772-0270	\$134	\$141	
Columbia	Ramada Inn	803	796-2700	\$136	\$144	
Columbia	Vagabond Inn	803	796-6240	\$127	\$130	

#### Find the price for a double room at the Quality Inn in Columbia, South Carolina

```
Pennsylvania
Bedford Motel/Hotel: Crinaline Courts
 (814) 623-9511 S: $118 D: $120
Bedford Motel/Hotel: Holiday Inn
 (814) 623-9006 S: $129 D: $136
Bedford Motel/Hotel: Midway
 (814) 623-8107 S: $121 D: $126
Bedford Motel/Hotel: Penn Manor
 (814) 623-8177 S: $119 D: $125
Bedford Motel/Hotel: Quality Inn
 (814) 623-5189 S: $123 D: $128
Bedford Motel/Hotel: Terrace
 (814) 623-5111 S: $122 D: $124
Bradley Motel/Hotel: De Soto
 (814) 362-3567 S: $120 D: $124
Bradley Motel/Hotel: Holiday House
 (814) 362-4511 S: $122 D: $125
Bradley Motel/Hotel: Holiday Inn
 (814) 362-4501 S: $132 D: $140
Breezewood Motel/Hotel: Best Western Plaza
 (814) 735-4352 S: $120 D: $127
Breezewood Motel/Hotel: Motel 70
 (814) 735-4385 S: $116 D: $118
```

### What was the difference?

Which was easier? why?

# Attention is affected by

Clear Goal

Presentation

### So what?

What are the design implications of attention?

### Design implications of attention

- Consider context (office vs driving, game vs work)
- Clear presentation (boxing, spacing, )
- Consider switching (e.g. info from ids)
- Demographics (e.g. age, etc.)

Next class:

Other cognitive aspects

Cognitive frameworks