

Human Memory



What is Human Memory?

 Memory is a vital part of how we perceive the world around us. Human beings have both short-term and longterm memory capacities, and we can create better designs by understanding how memory works and how we can work with that capacity rather than against it.

A model of the structure of memory







There are three types of memory. Sensory memory, which acts as a buffer for stimuli received through all the senses.

Sensory memory exists for each sense we have –

Haptic for touch

Echoic for sound

Iconic for sight.

Short-term memory Properties:

Rapidly accessed

Rapidly recalled

Rapidly decays

Limited capacity

Long-term memory Properties:

Slowly accessed

Slowly created

Slowly decays

Much larger/theoretically unlimited capacity

Two major forms of long-term memory:

Episodic

- Serial memory which follows a sequence, such as a story or the way most children learn their times tables.
- However, this information is often hard to recall out of order.

Semantic/declarative

• Structured memory of facts, concepts and skills

Few ways in which longterm memory can manifest or is triggered:

Associative memory

• Concepts which are linked to one another are triggered, like a domino effect.

Explicit memory

- Conscious memory, you know that you know it.
- Includes episodic and semantic memory.

Implicit/tacit knowledge

- Motor memories e.g. playing an instrument.
- Automatic reactions e.g. Pavlov's dogs.
- Expert knowledge of a domain.

Mezzanine memory

- Mezzanine memory is often overlooked and unfortunately has not been studied much outside of airplane cockpits to test for situational awareness in a simulated crisis.
- It sits between short and long-term memory, of the last 20–30 minutes.