

Alright, let's imagine that digital systems are like little messengers that carry and deliver information. These messengers use a special language made up of only two symbols: 0 and 1. Just like how we have our own language with letters and words, digital systems have their own language. When we want to send a message using a digital system, we have to convert our information into combinations of 0s and 1s, kind of like a secret code.

For example, think of a light switch in your room. When the switch is up, it represents the number 1 (on), and when it's down, it represents the number 0 (off). This is similar to how digital systems work - they use these on/off signals to represent data.

Now, when we want to send this coded message to someone else, the digital system takes these 0s and 1s and transmits them through wires, cables, or even wirelessly through signals. It's like the messenger carrying our coded message to its destination.

Once the message reaches its destination, the receiving digital system decodes the 0s and 1s back into the original information, just like someone translating a secret code back into understandable words. So, in a nutshell, digital systems represent and transmit data by using a special binary language and sending it through different channels to communicate information.

Think of it like a game of telephone, where the message is encoded into a language only the players understand, passed along through different friends (the transmission), and then decoded back at the end to reveal the original message. That's how digital systems represent and transmit data!