Computer - Human Interaction

Input Devices

Part I

Objectives of this module

- to learn about **different types of input devices**
- to learn to **give definitions** and **describe function**
- to review how to use the gerund and the infinite forms
- to talk about new ways of interacting with computers

Students, follow the instructions on the slide

INPUT DEVICES

ANSWER THE FOLLOWING QUESTIONS:

1 What are some common ways of inputting data into the computer?

2 Which of the above-mentioned devices do you think will potentially become obsolete in the future?

3 How were input devices different in the past than input devices in the present?

LISTENING

LISTEN TO THE RECORDING AND ANSWER THE QUESTIONS BELOW.

1 Which two input devices are mentioned that have already become obsolete?

2 Name a few input devices that are preferred by certain people to a traditional mouse.

3 Which input devices are mentioned as examples of second-generation input devices?

Students, draw anywhere on this slide!

LISTENING

COMPLETE THE SENTENCES BELOW WITH NO MORE THAN THREE WORDS BASED ON WHAT YOU HEAR.

1. Input devices are generally used to _____ around the screen, enter alphanumeric text or draw pictures.
2. One of the first input devices used was the simple _____.
3. _____ are devices widely used on motherboards for changing important settings.
4. Graphic artists usually prefer to use a(n) _____ tablet rather than a mouse, while sufferers of carpal tunnel syndrome would rather use a(n) _____ than a mouse.
5. _____ and fingerprint readers are being implemented to improve security.
6. In the future, people will see more of this kind of _____ as a general remedy for weak or leaked passwords.

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VOCABULARY

MATCH THE FOLLOWING TERMS TO THEIR DEFINITION.

flatbed scanner _____

handheld scanner _____

slide scanner _____

digitiser / graphics tablet _____

sip-and-puff _____

optical mark reader _____

magnetic stripe reader _____

stylus _____

MIDI keyboard _____

concept keyboard _____

a. a device that reads information encoded in the magnetic strip located on the back of a plastic badge

b. a piano-style user interface keyboard device used for sending audio signals to a computer

c. a type of keyboard where each button relates to a particular item or function

d. a small pen-shaped instrument that is used to input commands to a computer screen

e. small scanner that is moved by hand over the material being captured;

f. a scanner that provides a flat, glass surface to hold a sheet of paper, book or object for scanning;

g. a device that allows one to hand-draw images and graphics, similar to the way one draws images with a pencil and paper;

h. an assistive device used to send signals to a computer by inhaling / exhaling on a tube;

i. a type of scanner that is specialized for scanning 35mm slides and film negatives;

j. a device that reads marks made by pencil on a printed form into the computer;

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VOCABULARY

READ THE DEFINITION OF DIFFERENT TYPES OF DEVICES AND THEN CHOOSE THE DEVICE THAT MATCHES THE DESCRIPTION.

	A	trackball		**B**	joystick		**C**	lightpen		**D**	scanner

1. A _____ is an input device you can connect to a computer system. The _____ is able to move in eight directions. _____ s are mostly used in computer games to control the way a picture on the screen moves. Sometimes two _____ s are connected to a connected computer so two people can play at the same time.

2. A _____ works in exactly the same way as a mouse, except the ball is on top. The user rolls the ball around with her hand to operate it. If you use a _____ , you don't need any extra space on your desk to move it around (like you do with a mouse). _____ s are often used on small portable computers and on some video game machines.

3. A _____ can be used to draw pictures on to a computer screen or to read the pattern on a barcode. A _____ that can read barcodes detects the difference between the light reflected from a black barcode line and its lighter background.

4. Using a _____, you can input printed drawings, photographs, or text directly into a computer. A _____ works like a photocopier – a light is shone on the material and the _____ detects the reflected light. You can use a _____ with optical character recognition (OCR) software to input the scanned text into a word processing package.

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LOOK AT THE DEFINITIONS FROM THE PREVIOUS EXERCISE AGAIN.

WHAT TYPE OF INFORMATION DO THEY CONTAIN AND HOW IS THIS INFORMATION PRESENTED?

1. A **JOYSTICK** is an input device you can connect to a computer system. The **JOYSTICK** is able to move in eight directions. **JOYSTICK**s are mostly used in computer games to control the way a picture on the screen moves. Sometimes two **JOYSTICK**s are connected to a connected computer so two people can play at the same time.
2. A **TRACKBALL** works in exactly the same way as a mouse, except the ball is on top. The user rolls the ball around with her hand to operate it. If you use a **TRACKBALL**, you don't need any extra space on your desk to move it around (like you do with a mouse). **TRACKBALL**s are often used on small portable computers and on some video game machines.
3. A **LIGHTPEN** can be used to draw pictures on to a computer screen or to read the pattern on a barcode. A **LIGHTPEN** that can read barcodes detects the difference between the light reflected from a black barcode line and its lighter background.
4. Using a **SCANNER**, you can input printed drawings, photographs, or text directly into a computer. A **SCANNER** works like a photocopier – a light is shone on the material and the **SCANNER** detects the reflected light. You can use a **SCANNER** with optical character recognition (OCR) software to input the scanned text into a word processing package.

BELOW YOU CAN FIND OUT MORE ABOUT HOW YOU CAN GIVE DEFINITIONS IN ENGLISH.

A definition usually includes three parts: the term to be defined, the group it belongs to, and the characteristics that distinguish it from other members of the group.

TERM	GROUP	CHARACTERISTICS / FUNCTION
A core	is a ferrite ring	which is capable of being either magnetised or demagnetised.
Silicon	Is a non-metallic element	with semiconductor characteristics

ANALYZE THE FOLLOWING DEFINITIONS AND IDENTIFY THE DIFFERENT PARTS BY:

- **a** circling the term
- **b** underlining the group once
- **c** underlining the characteristics twice

e.g. A computer is a machine with an intricate network of electronic circuits that separate switches or magnetise metallic cores.

Students, write your response!

ANALYZE THE FOLLOWING DEFINITIONS AND IDENTIFY THE TERM, THE GROUP IT BELONGS TO AND THE CHARACTERISTICS BY MARKING THEM WITH DIFFERENT COLOURS.

1. Input is information presented to the computer.
2. A ‘system’ is a mixture of integrated parts working together to form a useful whole.
3. Large computer systems, or mainframes, as they are referred to in the field of computer science, are those computer systems found in computer installations processing immense amounts of data
4. A modem is a device which serves a dual purpose, because it acts as a modulator (digital to analog) and a demodulator (analog to digital).
5. A compiler is a systems program which may be written in any language, but the compiler’s operating system is a true systems program which controls the central processing unit (CPU), the input, the output and the secondary memory devices.

KNOWING HOW TO USE RELATIVE PRONOUNS CORRECTLY IS KEY WHEN GIVING DEFINITIONS.

SUBJECT	OBJECT	POSSESSIVE
who	who/whom	whose
which	which	whose
that	that	-

TWO KINDS OF RELATIVE CLAUSES

Relative clauses are subordinate clauses which refer to the noun of the main clause, identifying it or adding extra information. There are two types of relative clause: defining clauses (identifying the noun or classifying it as part of a group) and non-defining clauses (adding information about the noun).

DEFINING RELATIVE CLAUSE

A defining relative clause specifies which person or thing we mean. It cannot be separated from the person or thing it describes.

e.g. By 4.30, there was only one computer which hadn't been sold.

NON-DEFINING RELATIVE CLAUSE

A non-defining relative clause contains extra information. In writing, it is separated by commas, and in speech, if used at all, is usually indicated by intonation.

e.g. By 4.30, which was almost closing time, nearly all computers had been sold.

HERE ARE FIVE SIMPLE RULES ABOUT RELATIVE STRUCTURES. FOUR ARE CORRECT. CIRCLE THE NUMBER OF THE INCORRECT ONE.

1. We can use *who(m)* for people and *which* for things.
2. We can often use *that* instead of *who(m)* and *which*.
3. We can often drop *that*.
4. After *everything, anything* or *nothing*, we can use *what,* not *that*.
5. *Who* and *which* replace *he, she, it, etc.* we don't use both kinds of pronouns together.

CHECK YOUR KNOWLEDGE. FIVE OF THE SENTENCES IN 1-10 ARE WRONG. CORRECT THE MISTAKES OR WRITE 'CORRECT'

I don't enjoy films that I can't understand ~~them~~. that I can't understand

What's the name of the man who just came in? correct

1 I like people which smile a lot.

2 This is a book will interest children of all ages.

3 Is there anything I can do for you?

4 Motor racing is a sport who doesn't excite me at all.

5 We've lost the key that opens the cellar.

6 I forget everything what I read.

7 They made me an offer which I couldn't refuse.

8 They made me an offer that I couldn't refuse.

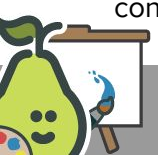
9 They made me an offer I couldn't refuse.

10 They made me an offer that I couldn't refuse it.

Students, draw anywhere on this slide!

FILL IN THE BLANKS WITH THE CORRECT RELATIVE PRONOUN OR ADVERB. INDICATE WHERE THE RELATIVE PRONOUNS CAN BE OMITTED.

1. Our new neighbours, who live in the flat _____ is just below ours, own the gallery _____ is showing the Picasso exhibition.
2. Two weeks ago he went to Chicago _____ he met the magazine editor for _____ he will be working _____ he finishes training.
3. Kevin Sedgewick _____ stars in this film, comes from the small town _____ I lived _____ I was studying in England.
4. It was at the dinner on Saturday _____ Gary told us about the woman _____ claimed that she was his kindergarten teacher.
5. I believe that vitamin C relieves colds quickly. _____ is a point _____ many doctors agree on.
6. Angela is a parent _____ I met at the school last week. Angela _____ is so interested in children, gave up a successful career to campaign for their rights, _____ is certainly praiseworthy.
7. That young man _____ you were speaking to at the conference was the one _____ mother is the country's best surgeon.
8. My Babe Ruth baseball card _____ value has tripled since I bought it twenty years ago, was bought by a collector _____ lives in the house _____ I grew up.
9. Just as we were getting out of our car, Miss Williams, _____ lives two doors away, came with a police officer and asked us if we had seen the couple to _____ she had rented a flat.
10. Yesterday was one of those days _____ I couldn't find any free parking spots. _____ was frustrating considering all the clients had to meet.



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THE TABLE BELOW CONTAINS INFORMATION ABOUT THE MAIN PARTS OF A STANDARD KEYBOARD. USING THIS INFORMATION, WRITE A BRIEF DESCRIPTION OF A KEYBOARD. THE FIRST SENTENCE HAS BEEN DONE FOR YOU.

	SECTION	LOCATION	MAIN KEYS	MAIN FUNCTION
1	Typing keys (main keyboard)	centre	Each letter Digits 0-9	Input all kinds of data
2	Function keys	top	F1-F12	Not fixed-can be programmed
3	Control keys	right	Cursor keys Insert delete	Control the cursor
4	Numeric keypad	far right	Digits 0-9 Symbols for mathematical operations	Input numeric data

1. Typing keys are the main keys located at the centre of a keyboard which allow a user to input all kinds of data. It has keys for each letter and digits 0-9, as well as keys for punctuation and other common symbols.

2. _____

3. _____

4. _____

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THAT'S ALL FOR TODAY! THANK YOU FOR YOUR ATTENTION & SEE YOU ALL NEXT WEEK!

As always, feel free to rate today's lesson and leave a message if you prefer:

Or, you can write a short feedback here, if you prefer: