

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ**  
**Херсонський державний університет**

**Т. В. МУНТЯН**

**ЗБІРНИК ВПРАВ**  
**з дисципліни**  
**«Іноземна мова для професійної комунікації»**  
**(робота з відеоматеріалами)**



Херсон–2017



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УДК 378.016:81'243:004(076.5)

М90

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Збірник вправ з дисципліни «Іноземна мова для професійної комунікації» (робота з відеоматеріалами) розроблено для студентів спеціальності «Інженерія програмного забезпечення». Опрацювання представлених змістових розділів передбачає перегляд відео професійного спрямування та виконання завдань на розвиток професійної іншомовної комунікативної компетентності майбутніх інженерів-програмістів.

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## Передмова

Збірник вправ з дисципліни «Іноземна мова для професійної комунікації» (робота з відеоматеріалами) розроблено для студентів спеціальності «Інженерія програмного забезпечення» та містить завдання для різнобічного опрацювання аутентичних відеоматеріалів під час аудиторних занять.

У процесі навчання іноземної мови сприйняття її лише на слух без візуальної опори представляє складність для студентів. Завдяки розвитку інтернет-технологій стало можливим використання такої форми навчальної діяльності, як робота з відеоматеріалами. Виконання вправ, що містять перегляд відео, має більше переваг на відміну від тих, що побудовані на прослуховуванні аудіозапису: 1) задіюється візуальне сприйняття, що значно полегшує розуміння іншомовного мовлення; 2) підвищується інтерес студентів до навчання завдяки різноманітній тематиці відеоматеріалів, результатом чого є активізація пізнавальної активності та мотивації студентів; 3) реалізується лінгвокраїнознавчий складник навчання, оскільки відео ознайомлює студентів з певними культурними особливостями країни, мова якої вивчається; 4) створюється умовна комунікативна ситуація, необхідна для розвитку іншомовної комунікативної компетенції студентів, їхньої пошукової і творчої діяльності.

Збірник складається з 4 модулів відповідно до розділів робочої програми, розробленої для дисципліни «Іноземна мова для професійної комунікації». Зміст розділів конкретизовано в окремих темах, що розглядаються під час аудиторних занять. Система вправ кожного заняття побудована на використанні аутентичних відеоматеріалів, що мають інформативну, освітню, розвивальну та виховну цінність для студентів.

Опрацювання відео відбувається в три етапи: допереглядний (Preparation), перегляд (Watching), післяпереглядний (After-watching). Під час допереглядного етапу студентам пропонуються вправи, які містять завдання, спрямовані на опрацювання незнайомих лексичних одиниць, завдання на антиципацію, читання тексту, що є підготовчими до сприйняття відео.

Під час перегляду увагу студентів зосереджують на виконанні таких завдань: обирання правильної відповіді, заповнення пропусків у реченнях, пошук еквівалентів до лексичних одиниць, розташування речень або кадрів у хронологічному порядку та ін.

Післяпереглядний етап має на меті розвиток продуктивних умінь з іноземної мови. Він складається з кількох блоків: обговорення (Discussion), говоріння (Speaking) або письмо (Writing), де студенти максимально виявляють ступінь розуміння відео й демонструють творчі вміння, беручи участь у діалозі, висловлюючи власне бачення порушеної проблеми тощо.

Збірник містить словник, до якого студенти мають змогу звертатися під час роботи з відео.

**I Preparation:**

1. Read the following words. Mark the word stress:

Example: *engine*, *engineer*, *engineering*

- |                |               |                |                 |
|----------------|---------------|----------------|-----------------|
| 1. engine      | 4. machine    | 9. technical   | 12. electron    |
| 2. engineer    | 5. machinery  | 10. technician | 13. electronics |
| 3. engineering | 6. mechanics  | 11. technology | 14. electrical  |
|                | 7. mechanic   |                | 15. electrician |
|                | 8. mechanical |                |                 |

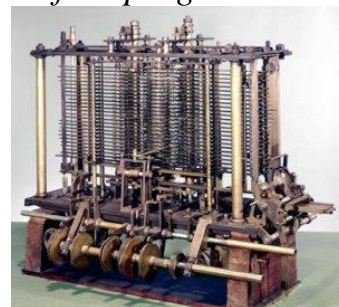
2. Now label the pictures below with the words from ex. 1:



E software ...



F the first programmable



**II Watching:**

3. Watch the video and check your word stress.

**III After-watching:**

4. Put the list of common technical words into the groups in the table below. Look up in a dictionary if needed.

Note: Some technical words look similar to each other but are used in different ways.

For example, *mechanic* means profession and *mechanics* defines area of science.

- |                    |                   |                    |                  |
|--------------------|-------------------|--------------------|------------------|
| <i>engine</i>      | <i>engineer</i>   | <i>engineering</i> |                  |
| <i>mechanic</i>    | <i>mechanics</i>  | <i>mechanical</i>  | <i>mechanism</i> |
| <i>electron</i>    | <i>electronic</i> | <i>electronics</i> |                  |
| <i>technical</i>   | <i>technology</i> | <i>technician</i>  |                  |
| <i>electricity</i> | <i>electrical</i> | <i>electrician</i> |                  |

Area of Science	Profession	Things	Adjectives
1. <i>engineering</i>	<i>engineer</i>	<i>engine</i>	<i>engineering</i>
2.			
3.			
4.			
5.			

**5. Complete the sentences with the words from ex. 4:**

- 1) My father is a ... . He deals with difficult mechanisms.
- 2) I have always dreamed to study software ... .
- 3) With the development of ... mankind has gained a lot of benefits.
- 4) Look! This wire is damaged! – Let me see, I am ... .
- 5) Some scientists believe that the products of ... progress caused global warming process.
- 6) ... includes knowledge in order to design, build, maintain, and improve structures, machines, devices, systems, materials and processes.
- 7) There is something with your TV. You should call an ... .
- 8) Nowadays the invention of eternal ... is impossible.
- 9) Yesterday because of the storm the ... was cut off.

**6. Take a quiz and find out if you are good for Software Engineering.**

**Calculate your score: Yes = 2 points, No = 1 point.**

**Are you good enough for Software Engineering?**

<i>1. Are you comfortable working alone?</i>	Yes	No
<i>2. Do you think analytically?</i>	Yes	No
<i>3. Do you enjoy solving problems?</i>	Yes	No
<i>4. Are you persistent?</i>	Yes	No
<i>5. Do you have writing skills?</i>	Yes	No
<i>6. Do you have a strong aptitude for math?</i>	Yes	No
<i>7. Are you passionate about computers?</i>	Yes	No
<i>8. Do you handle stress well?</i>	Yes	No
<i>9. Do you have interpersonal skills?</i>	Yes	No
<i>10. Do you enjoy learning?</i>	Yes	No

**Your Score:**

**18–20 points:** Congratulations! You are perfect for your speciality. You've made a right choice. Now develop your skills and you will succeed!

**16–18 points:** You have good skills but you're still hesitating about chosen speciality. Don't worry and do your best in learning. Soon you'll see it is really an exciting area.



**10–16 points:** Have you thought everything through? Maybe Software Engineering is not the best speciality for you. Make a list of your skills and decide what you are passionate about.

#### **IV Writing:**

**7. John dreams to become a Software Engineer. Read his story and then write your own.**



I've always been passionate about computers. I remember when I was a child I often watched my father repairing computers and other devices. One day he taught me how to operate the computer. I was so excited. It was then when I decided to become a professional in computer area.

At school my favourite subjects were Mathematics, Physics, and, of course, Computer Science. Now I enjoy playing computer games and coding. I can spend hours working at my computer. I am sure that the profession of programmer can give many opportunities. And I hope I will make a good specialist.

#### **V Speaking:**

**8. Retell your story to the group.**

# COMPUTER EVOLUTION

Source: <https://www.youtube.com/watch?v=sTc4kIVUnoA>

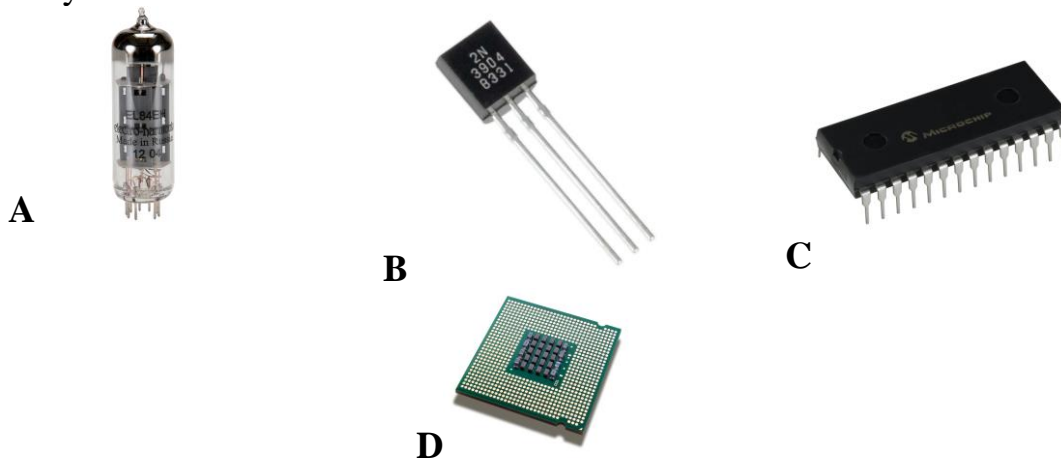
## I Preparation:

### 1. Answer the following questions:

- 1) Do you know how many computer generations were there?
- 2) What can you say about computers below?



### 3) Can you name these items?



### 2. You are going to watch the video *Computers Generation*.

#### Answer these questions before watching:

- 1) When did the era of computers begin?
- 2) What did the first computers work on?
- 3) Did early computers look like modern ones?

**II Watching:**

3. Watch the video and check your answers.  
 4. Watch the video again and fill in the table below:

Generation	Period	Used	Computer features
I			
II			
III			
IV			
V			

**III After-watching:**

5. Relate the following words to one of the categories in the table below:

*1960 ENIAC glass bulb large and expensive makes fewer mistakes  
 portable silicon chip smaller and faster wire works as fast as  
 1000 transistors*

<i>vacuum tubes</i>	<i>transistor</i>	<i>integrated circuit</i>	<i>microprocessor</i>

**IV Watching:**

6. Watch the second part of the video and label the pictures below:





D



E



F



G



**V After-watching:**

**7. Join the name of the computer system with its function and properties:**

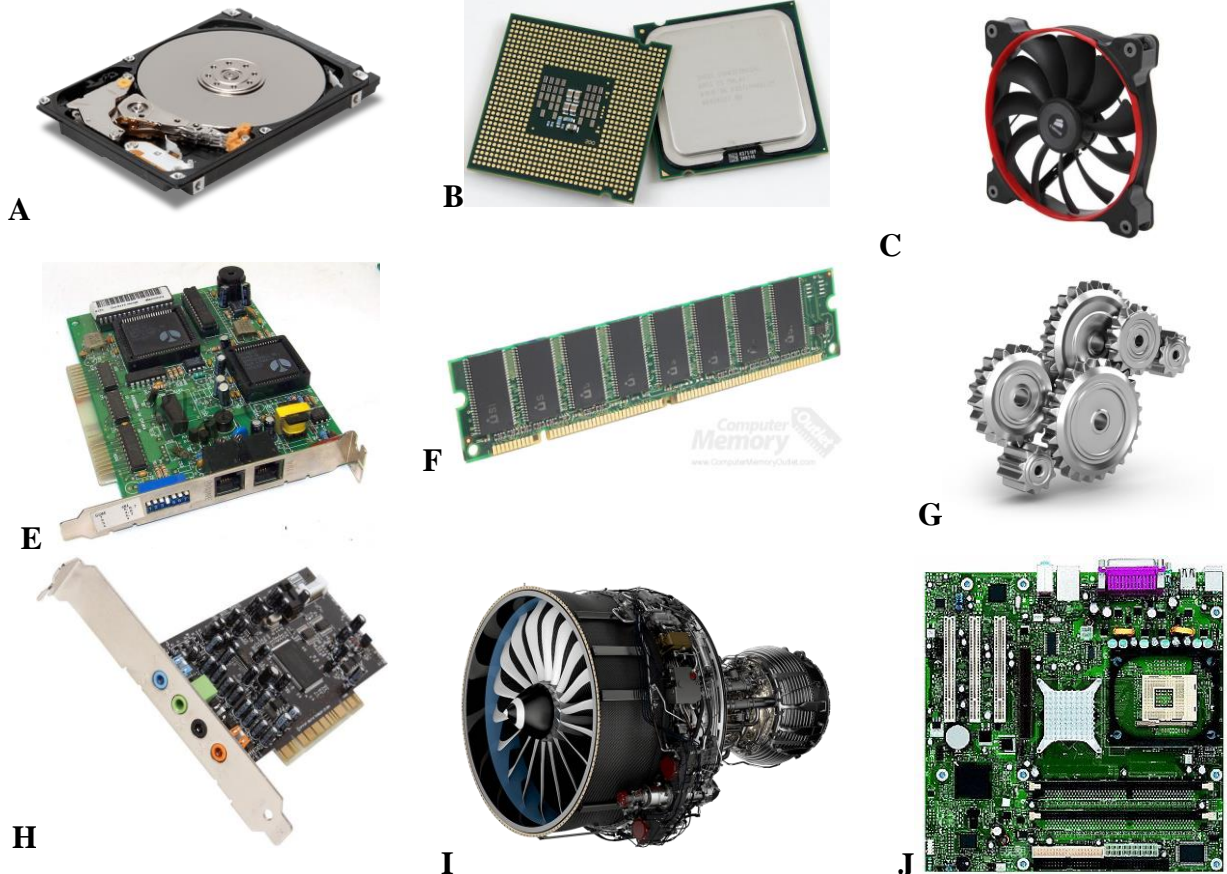
1) Supercomputers	are used by businesses, at schools and home
2) Mainframe computers	are portable and can be operated with a battery
3) Minicomputers	process complex and large amounts of data
4) Desktop computers	allow user to organize information, play games and read e-books
5) Laptop computers	allow hundreds of people to work on them at the same time
6) Tablets	are fitted into device to perform special operations
7) Embedded Systems	fewer people can work on them

**V Speaking:**

- 8. Basing on the ex.4 retell the first part of the video.**
- 9. Imagine you woke up in 1970s where there were no personal computers in every home. What would you do instead of:**
- ✓ *listening to music online*
  - ✓ *watching movies on you computer*
  - ✓ *chatting with your friends in social networks*
  - ✓ *downloading books from the internet*
  - ✓ *shopping online*
  - ✓ *playing computer games*
- 10. Computers are developing. Can you predict what the next computer generation would look like? Will the computers be different? What functions would they have?**

## I Preparation:

1. What is inside every personal computer? Cross out the odd words:  
*processor, sound card, engine, fan, memory, motherboard, metal gears, modem, hard drive*
2. Relate the words from the ex. 1 with the pictures below:



3. Guess if the statements below are true (T) or false (F).

Use the following phrases:

*It is correct, I agree with that, I am sure it is true – for true statements;*

*I'm afraid it is false, I can't agree with that – for false statements*

- 1) The hard disk is “the main brain of your computer”.
- 2) The speed of a processor is measured in gigabytes.
- 3) RAM is a computer’s long-term memory.
- 4) Hard disk stores temporary files and it’s cleared when the computer is turned off.
- 5) Usually hard disk contains over 100 gigabytes of space.

## II Watching:

4. Watch the video and check if your answers were right.

**5. Join the parts of the following word combinations from the video.**

- 1) *core ...*                      *characters*
- 2) *handling ...*                *components*
- 3) *computing ...*               *data*
- 4) *transfer ...*                 *magnetic wheel*
- 5) *spinning ...*                 *power*

**6. Now write the English equivalents to the following words:**

- 1) *символ* –
- 2) *обчислювальний* –
- 3) *колесо* –
- 4) *потужність* –
- 5) *передавати* –

**7. Watch the video again and complete the sentences:**

- 1) The core components of a computer are a ... , memory, and ... .
- 2) The speed of the processor is measured in ... . It determines how quickly you computer ... .
- 3) As your computer thinks it uses memory called ... as a scratchpad.
- 4) This ... memory remembers the programs you're running, files you've opened, and basically everything what's on your screen.
- 5) Memory chips have no moving parts and can ... ... at extremely high speed.
- 6) When the computer turns off the memory is ... .
- 7) Your computer's hard disk acts as a ... memory.
- 8) The hard disk is spinning magnetic wheel is where your operating system and all of your programs, documents, media and more ... .
- 9) Hard disk store space is ... than RAM but much less expensive.
- 10) While your computer might have ... of RAM the hard disk might have over ... of space.

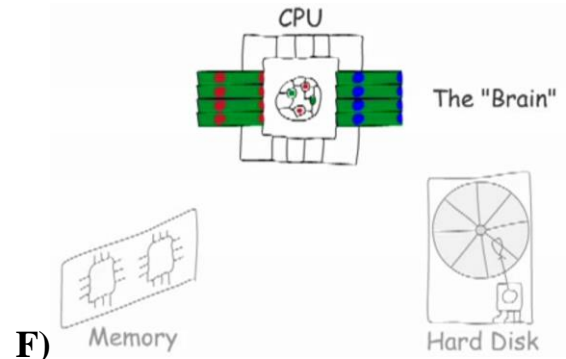
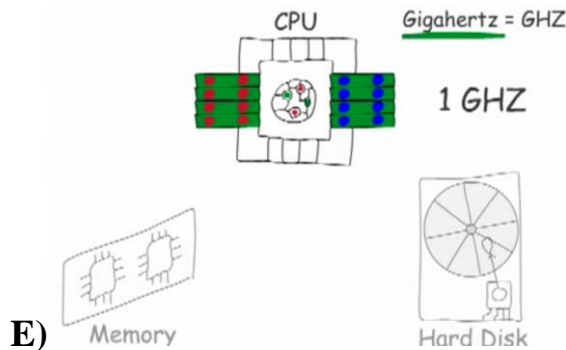
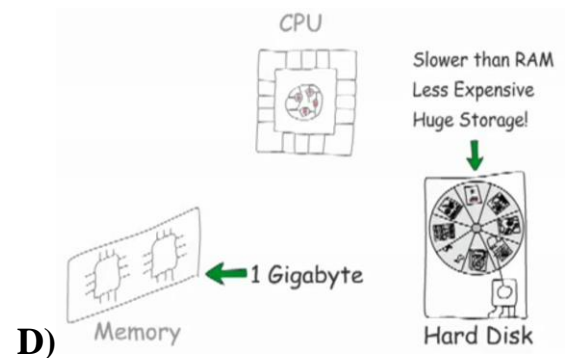
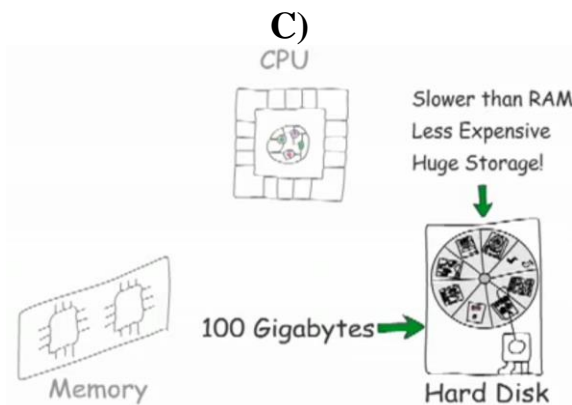
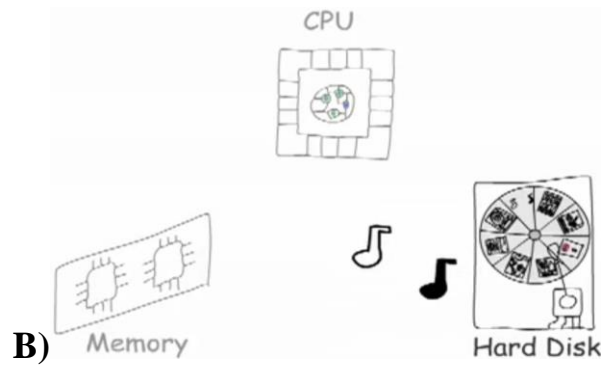
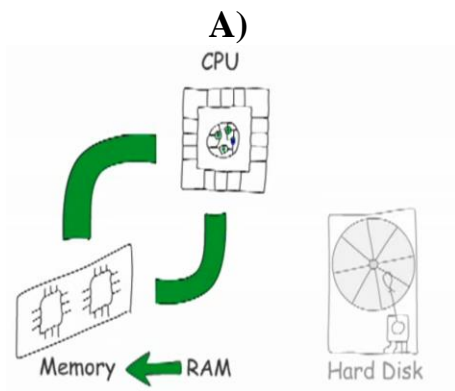
**III After-watching:**

**8. Put the words characterizing computer components into proper column below:**

- short-term memory*                *bigger storage space*                *processes data*
- spinning magnetic wheel*        *long-term memory*                 *stores data*
- brain*                                    *Gigahertz*                               *transfers data*
- provides computing*                *is used as a scratchpad*             *is cleared*
- power*

CPU	RAM	Hard Disk

9. Place the shots from the video in the order of appearance.  
Label them with the sentences from ex. 7:



#### IV Speaking:

10. Make up a list of 5 questions to the information from the video.  
Exchange questions with your partner.

*Example:*

- 1) What is the function of ...
- 2) What does ... do?
- 3) What is the difference between ... and ...
- 4) What does ... contain?
- 5) What is the ... storage space?

11. Choose one of three core computer components (CPU, RAM or Hard disk) and prepare a short summary based on the video you've just watched.

12. Basing on ex. 5 retell the main points of the video.

**I Preparation:**

**1. Answer the following questions:**

- 1) Do you know any smart home appliances developed recently?
- 2) What smart home appliances do you have in your house?

**2. Look at the picture. Do you know what it is?**

**Read the introduction:**

*This is Google Home Super Bowl – a brand new company's smart home appliance. Google Home was released last year (2016) as a competitor to the Amazon Echo. And like the Echo, it's designed to be activated with a simple vocal command: "OK, Google..." or "Hey, Google..."*



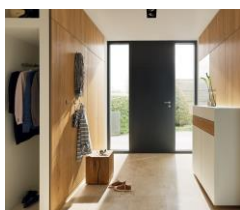
**II Watching:**

**3. Watch the commercial and tick the commands you will hear:**

- ✓ Turn on TV
- ✓ Switch off my computer
- ✓ Turn on the lights
- ✓ Turn up the music
- ✓ How to cook birthday cake?
- ✓ What's good substitute for cardamom?
- ✓ How much does the shark weight?
- ✓ What sound does the whale make?
- ✓ What's the weather?
- ✓ Is it raining?
- ✓ How to say "Nice to meet you" in Spanish?
- ✓ What is Italian for "How are you?"

**III After-watching:**

**4. Decide what commands or requests you would use for Google Home at different places in your house and in different occasions:**



A) You've just come home



B) You're hanging out with your friends





*C) You've just woke up*



*D) You're helping your niece with homework*



*E) You're cooking for the first time*



*F) You're babysitting*

**5. Answer the following questions:**

- 1) Do you think that Google Home is useful and essential in every house?
- 2) Would you like to have Google Home in your house? For what purposes?
- 3) Don't you think that people are getting more lazy when they are using devices like Google Home?

**IV Writing:**

**6. Search the net and find out information about one of the following devices. Describe its function and how it works.**



*Cocoon – Smart Home Security*



*Sunflower Home Awareness System*



*Petnet Smart Feeder*



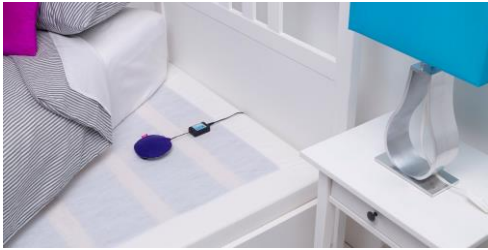
*Petcube – Remote Wireless Pet Camera*



*Sensly – Portable Pollution Sensor*



*Window Cleaning Robot*



*Lully – The Sleep Guardian*



*Atmoph Window*

Source: <https://www.youtube.com/watch?v=TVcMQjEsvZ8>

### I Preparation:

#### 1. Answer the questions:

- 1) What is a computer software?
- 2) Can a computer work without software?
- 3) What does software consist of?

### II Watching:

#### 2. Watch the video and choose the correct answer:

- 1) The problem with computers is that ...
  - a) *they are too small*
  - b) *they don't understand our language*
  - c) *they are lifeless*
- 2) We also can call software as ...
  - a) *assistant*
  - b) *compiler*
  - c) *translator*
- 3) The operating system comes ...
  - a) *with all new computers*
  - b) *with some computers*
  - c) *with old machines*
- 4) To add a photo you need to ...
  - a) *call the support center*
  - b) *add program built for that purpose*
  - c) *click an icon on a desktop*
- 5) Software program is ...
  - a) *encrypted code*
  - b) *simple command*
  - c) *set of instructions*

### III After-watching:

#### 3. Answer the following questions:

- 1) Why do we need the translator in communication with a computer?
- 2) What is computer without software?
- 3) What two basics do the most computers have?
- 4) What are the most common operating systems?
- 5) Why do we have to add software programs?
- 6) Where can we get software programs?
- 7) What combination makes computer a useful machine?
- 8) What brings cell phone to life?
- 9) Do only computers and cell phones have software?
- 10) What do we rely on when using computers and different devices in everyday life?

### IV Speaking:

#### 4. Explain why computers cannot work without any software installed.

Source: <https://www.youtube.com/watch?v=K2ROYGwLlkU>

**I Preparation:**

**1. Answer the questions:**

- 1) What application do you use on a daily basis?
- 2) What advantages of application are there?
- 3) Can you name any disadvantages?

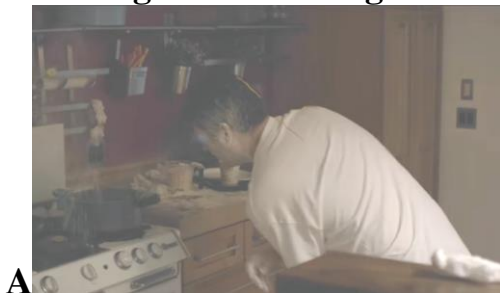
**II Watching:**

**2. Watch the video and put the following statements into chronological order:**

- a) Jason's sister makes him to protest against rights violation
- b) He is cooking breakfast
- c) Jason was "switched off"
- d) Jason is serving food at the party
- e) Jason comes to his sister
- f) He downloads a new application *Snoozler*
- g) He is complaining to *Snoozler's* support service
- h) Jason is making noise at the house of *Snoozler* company director.

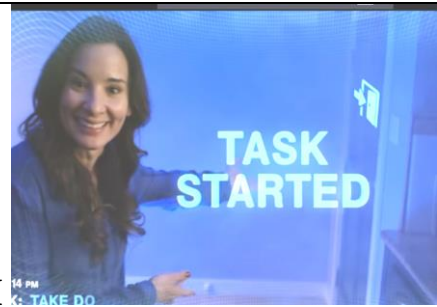
**III After-watching:**

**3. Rearrange the following shots in the order of appearance:**





G



H

#### IV Discussing:

4. Imagine you've downloaded *Snoozler* application. Would you become a slave for money or you would try to get rid of it? Don't you think that some applications violate human rights? How?

#### V Speaking:

5. Browse the net and find what new applications were developed recently. Would you like to develop an application of your own? What kind of app would it be (for home, health, entertainment, education, etc.)?

**I Preparation:****1. Answer the following questions:**

- 1) Does the man on the picture look familiar to you?
- 2) What kind of device does he have?
- 3) Can you guess what its function?

**2. Read the introduction. Translate it.**

Neil Harbisson (born 27 July 1984) is best known for being the first person in the world with an antenna implanted in his skull. Since 2004, international media has described him as the world's first cyborg who created the permanent union between electronic components and his brain. In 2010, he co-founded the Cyborg Foundation, an international organisation that defends cyborg rights, promotes cyborgism as an art movement and supports people who want to become cyborgs. In 2015 he co-founded Cyborg Nest, a company that creates artificial senses to extend the perception of reality. (from Wikipedia)

**3. Give Ukrainian equivalents to the following word combinations you will hear in the video:**

- 1) *detects color frequency* –
- 2) *through bone conduction* –
- 3) *perception became feeling* –
- 4) *cybernetic device* –
- 5) *extension of senses* –

**4. You are going to watch Neil Harbisson's speech 'I listen to color'. Can you predict what it is about?****II Watching:****5. Watch the first part of Neil's speech 'I listen to color' and define what kind of device he has.****6. Watch the video again and complete the sentences:**

- 1) Achromatopsia is total ...
- 2) Since the age of 21 instead of ... color I can ... color
- 3) Electronic eye is ... that detects ...
- 4) I started to feel that the cybernetic device became a part of ... , an extension of ...
- 5) Before I used to dress in a way that looks good, now I dress in the way that ...
- 6) Someone might look ... but ... terrible.

**7. Watch the second part of the video and find out about secondary effect.****8. Choose the best variant:**

- 1) *Secondary effect* means that ...
  - a) *music becomes color*
  - b) *colors sound like a concert*
  - c) *sounds become color*






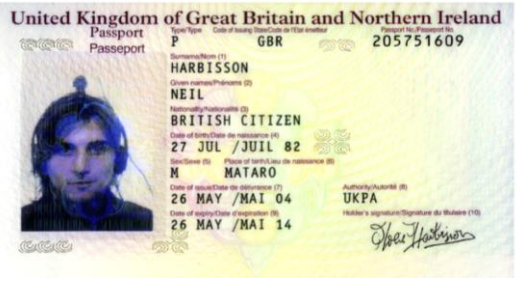
- 2) Human vision is able to perceive ...  
 a) 360 colors                      b) 130 colors                      c) 34 colors
- 3) When Neil decided to continue extending his color senses, he added ....  
 a) radio wave and x-ray      b) infrared and ultraviolet      c) ultraviolet and x-ray
- 4) If we extend our senses we will extend our ...  
 a) pleasure                      b) perception                      c) knowledge
- 5) Neil encourages all to think about which senses they'd like to ...  
 a) remove                      b) extend                      c) invent

**III After-watching:**

**9. Put the following sentences in the chronological order:**

- In his speech Neil ...
- compares Mozart's "Queen of the Night" to Justin Bibber's "Baby".
  - tells about his disease.
  - shows how different fabrics sound.
  - demonstrates the sounds of famous people's faces.
  - persuades that human vision isn't good enough.
  - shows the passport photo with the device on it.

**10. Relate the sentences from ex. 8 with the pictures below:**

<p><b>A</b></p> 	<p><b>B</b></p> 
<p><b>C</b></p> 	<p><b>D</b></p> 
<p><b>E</b></p> 	<p><b>F</b></p> 

**11. All the statements are false. Correct them:**

- Neil watches black and white television because he doesn't own a modern TV-set.
- He started the project of electronic eye in 2002.
- The sound of dirty sock is the sound of green.

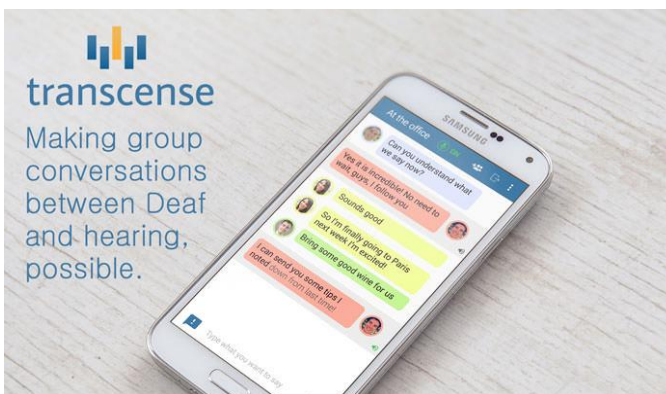
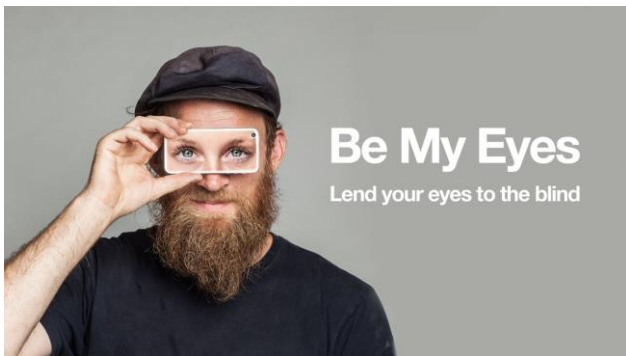
- 4) Nicole Kidman and Prince Charles have similar hair color.
- 5) There is a lot of violet color in Hitler’s speech.
- 6) Neil encourages people to become cyborgs because they are all disabled.

**IV Discussion:**

- 11. Do you consider an electronic eye as a useful device? Why?
- 12. Would you like to extend your senses? Which one? What device will you need for this? Explain your answer.

**V Writing:**

- 13. Imagine that you’re developing a device for the disabled. Which category of disability would you choose? What device would you develop?
- 14. Look at the pictures below. Choose an application you like and prepare its description. Speak about how the application works and why it is useful for the disabled.



Talkitt voice software helps the speech-impaired communicate in any language





**I Preparation:**

**1. Answer the following questions:**

- 1) What is a computer program?
- 2) What is the art of programming?
- 3) What does a computer program consist of?
- 4) What is the syntax of programming language?
- 5) How do programmers choose a language?

**2. Write down the following words and combinations into your vocabulary:**

- |                       |                          |                           |
|-----------------------|--------------------------|---------------------------|
| 1. useless            | 6. vitally important     | 11. statements            |
| 2. sequence of ...    | 7. to add numbers        | 12. semicolon             |
| 3. specific task      | 8. hit the spacebar      | 13. uppercase (lowercase) |
| 4. to break apart     | 9. ability               | 14. in the right order    |
| 5. driving directions | 10. mind-bogglingly fast | 15. to pick               |

**II Watching:**

**3. Watch the tutorial *Fundamentals of writing a computer program.***

**4. Watch the first part of the tutorial and fill in the gaps:**

- 1) A computer program is ... of ... .
- 2) The human brain is ... of ... .
- 3) There may be five instructions ... in a program, may be 5 thousand may be ... .
- 4) Each instruction is telling a computer to do something very ... but very ... .
- 5) The art of programming is to take a ... and ... it ... into these individual steps.

**5. Watch the next part of the tutorial and rearrange sentences in the order of appearance.**

**a) the sequence is vitally important**

**b) the same with programming: we are giving directions to the computer**

**c) you have to break the journey into simple parts**

**d) she is at the gas station**

**e) if you mix the directions up it will take her to different place**

**f) you give the direction: turn left on Acacia Avenue**

**g) you break apart complex idea into individual instructions and use programming language to write them.**

**h) your friend calls you to ask for direction**

**i) you are waiting for your friend**

**5. Watch the next part of the tutorial and cross out a wrong variant:**

- 1) Basic fundamental instructions you give a computer are: *change the color, display a sound, add two numbers together.*
- 2) Statements use *words, punctuation, ciphers.*
- 3) Statements end with *coma, period, semicolon.*
- 4) Some programming languages are *uppercase, middlecase, lowercase.*
- 5) In programming you need to *make up a new idea, break it apart into pieces, write those pieces using any programming language.*

**III After-watching:**

**6. Link the words to make up word combinations:**



**7. Fill in the gaps with the word combinations from the previous exercise:**

Simply saying, a program is a ... of ... . In order to create a ... .. you need to ... it ... into individual steps or ... .. In this way you give ... to ... .

The more complex a program is, the longer it takes to write it but computer will process it ... .. But before writing a program you need to ... right ... .

**8. Peter is a beginner in programming. He has watched the tutorial and it seems he misunderstood it. Correct his statements (in italics):**

1) The art of programming is *to write a program contained 5 million instructions.* ???



2) The example (girl-friend asking for a direction) shows that *programming is not for girls.*

3) Sequence of instructions in a program is *not important at all.*

4) The fundamental instructions you give to computer are *very complex and hard to understand.*

5) People write instructions for sixty hours a week for several years and computer processes them *very slowly as well.*

6) Your instructions better be right because computer *will not understand them.*

7) Statement is another title for *a computer program.*

- 8) The *unreadable characters* are used in statements.
- 9) Most programming statements are *very long and complex*.
- 10) *You don't need to pick up a language* – it is already picked for you.

#### **IV Writing:**

- 9. Role-play a dialogue with your partner. Explain what exactly a program is, how computer process any program then give some advice of how to be a good programmer. Use phrases from the tutorial you've just watched.**

## IDOLS OF SOFTWARE WORLD

Source: <https://www.youtube.com/watch?v=tj8BoOYvo00>  
<https://www.youtube.com/watch?v=NvWTnIoQZj4>

### I Preparation:

#### 1. Read the description of the programming languages and guess what language is described and who the inventor is:

1) Dr. James Arthur Gosling invented this language. It was developed and supported earlier by Sun Microsystem and now by Oracle.



A

2) Dennis MacAlistair Ritchie, an American computer scientist, created this programming language between 1967 and 1973 at AT&T Bell labs. It is still very popular and used extensively in System programming.



B

3) This language was designed by Guido van Rossum of CWI. It's a general-purpose, high-level programming language, whose design philosophy emphasizes code readability. Its syntax is clear and expressive.



C

4) This language was originally created by Rasmus Lerdorf in 1995. It is used extensively to build dynamic web pages and server side development.



D

5) This is the next generation language at time C was popular. It comes with object oriented programming feature which was considered phenomenal compared to structural way of C programming. It was developed by Bjarne Stroustrup, a Danish computer scientist.



E

#### 2. You've watched Bjarne Stroustrup's interview at home.

Now join the phrases from the video:

- |                         |                 |
|-------------------------|-----------------|
| 1. decent processor ... | a dock          |
| 2. to plug into...      | bird            |
| 3. network to...        | daily basis     |
| 4. to use on a ...      | other resources |
| 5. night...             | speed           |

## II Watching:

3. Watch the video again and give the answers to the following questions:

- 1) What is Bjarne Stroustrup's work setup?
- 2) When does he prefer to work: at night or during the day? Why?
- 3) Does he listen to music while writing code?
- 4) What kind of music does he prefer?

## III Speaking:









4. Imagine you are a famous programmer. You are giving an interview.

Answer the same questions: 1) What is your work setup?

- 2) What time of the day do you prefer to work?
- 3) Do you listen to music while coding?

## IV Watching:

5. Watch another interview with Bjarne Stroustrup and choose programming languages that are mentioned:

A) 	B) 	C) 
D) 	G) 	E) 
F) 		I) 

6. Watch the interview again and fill in the gaps:

Nobody should call themselves a professional if they knew only 1)... . Five isn't a bad number. Let's see, 2) ... , of course; 3) ... ; maybe Python for 4) ... . And if you know those, you can't help know a little bit about 5) ... and 6) ..., you can't help knowing C because that's what fills out the 7) ... and of course 8) ... . These languages create a 9) ... so that if you knew either five of the ones, you would actually know the others.

## V After-watching:

7. Answer the following questions:

- 1) How many programming languages should a professional programmer know?
- 2) What are the main five programming languages according to Bjarne Stroustrup?

- 3) What language is used for mainframe work?
- 4) What language fills out a domain?
- 5) What do these languages create together?

#### **VI Discussing:**

#### **8. Exchange the following questions with your partner:**

- 1) Did you like Bjarne Stroustrup's interview?
- 2) Do you agree with him?
- 3) What programming language do you know?
- 4) What programming language are you planning to master?
- 5) What task was this language designed for?

Source: <https://www.youtube.com/watch?v=EWTJKcg7Pj8>

**I Preparation:**

**1. Answer the questions:**

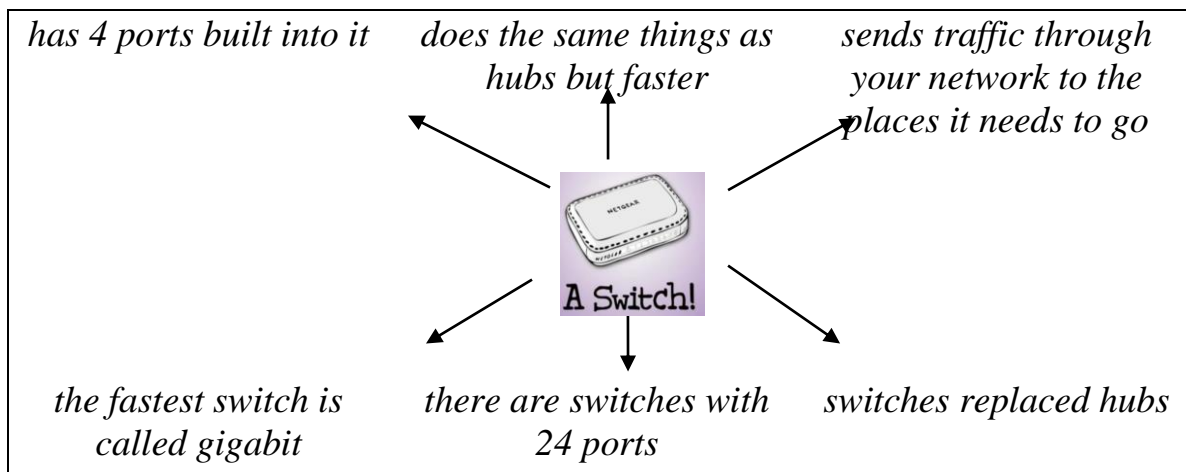
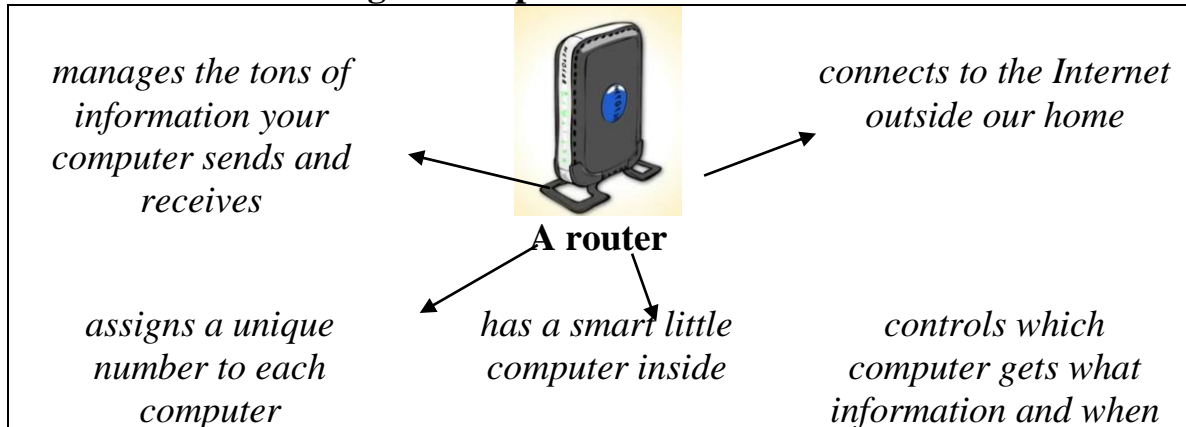
- 1) Do you know how a network works?
- 2) What is the difference between a router and a switch?
- 3) Do you know what a hub is?

**II Watching:**

**2. Watch the video and complete the sentences:**

- 1) Network is similar to ... .
- 2) The “brain” of the network is ... .
- 3) ... distributes signals to computers and devices via network cables.

**3. Watch the video again and place the statements in the correct order:**



**III After-watching:**

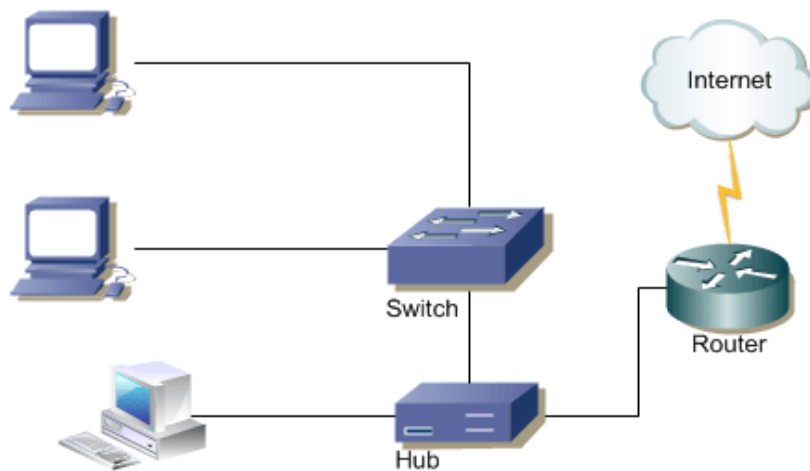
**4. Answer the questions:**

1. What does ‘networking’ mean?
2. What is network similar to?
3. What is the brain of any network?

4. What is the function of a switch?
5. Can router connect to the Internet outside your house?
6. How do tacky people call a number assigned to a computer by a router?
7. Does a router or a switch control what information your computer gets?
8. How many ports can switch have?
9. Is the hub the same as switch?
10. How is the fastest switch called?

#### IV Speaking:

5. Explain to a non-professional what a networking is. Speak about the functions of a router and a switch. Explain what the hub is. Use the picture below as a prompt.





Source: [https://www.ted.com/talks/mikko\\_hypponen\\_fighting\\_viruses\\_defending\\_the\\_net](https://www.ted.com/talks/mikko_hypponen_fighting_viruses_defending_the_net)

**I Preparation:**

1. **Think about all possible problems that computers are vulnerable to. What are they?**
2. **Imagine computers stop controlling and improving our lives. What would the humanity look like in the future?**
3. **Find the definitions to the following words:**

1) virus	illegal activities in the net
2) infected	dependent on someone or something
3) online crime	affected with a disease-causing organism
4) to defend	protect from harm or danger
5) reliant	a piece of code which is capable of copying itself and typically has a detrimental effect, such as corrupting the system or destroying data

**II Watching:**



4. **Mikko Hypponen devoted his life protecting computers. Watch his speech and fill in the gaps with the missing information:**

1. In history books our generation will be remembered as ...
2. Internet has problems with ...
3. "Brain" is ...
4. Inside the code it is said ...
5. Basit and Amjad are ...
6. The PC virus problem is ... old
7. Mikko runs the following old viruses: ...
8. Today viruses are global problem because they are NOT written by ...
9. Every single day computer is infected by ....
10. Today the viruses are written by ...
11. Keyloggers are ...
12. When you do purchases keyloggers ...
5. **Watch the second part of the speech and choose the correct variant:**
- 1) Stuxnet infected...
  - a) your personal computer
  - b) programmable logic computer
  - c) machines that control industries
- 2) Everything around us (like infrastructures and elevators) is run and controlled by...
  - a) viruses
  - b) manufacture
  - c) Siemens S7400
- 3) We have to worry about...
  - a) the possible risk
  - b) money loss
  - c) decline of factories
- 4) Any plant and factory is being run by...

- a) solar power                      b) computers                      c) people
- 5) We became too reliant on...  
 a) each other                      b) Internet and electricity    c) basic things
- 6) We must have some way of continuing to work because ....  
 a) of protecting the planet    b) we need to save the energy    c) computers can fail
- 7) Mikko uses a projector because...  
 a) he wants to demonstrate an alternative way    b) the light was turned off    c) he can't operate computers
- 8) Because of the online crime...  
 a) many things can be taken away from us    b) some people will become very rich    c) computers will destroy people's lives
- 9) If we don't fight online crime...  
 a) people could die    b) viruses will destroy computers    c) we could lose it all
- 10) What we need is to...  
 a) chase all the criminals    b) find people behind the crime    c) attack criminals' computers
- 11) We have to find people...  
 a) who have skills and use them for good    b) who train criminals    c) who can protect our computers

### III After-watching:

#### 6. Answer the following questions:

- 1) Are computer viruses a great problem of the Internet today?
- 2) Who created the first virus?
- 3) How old is virus problem?
- 4) What old viruses do you know?
- 5) Who writes the viruses today?
- 6) What are keyloggers? Are they dangerous?
- 7) What runs everything around us?
- 8) Should people worry that someday computers might fail? Why?
- 9) How dose online crime affect computer?
- 10) What is the way out proposed?

### IV Speaking:

**7. Imagine you're working in the Network Security office. Prepare a monthly report on cyber crimes that happen online.**

## MOVING TO AUGMENTED REALITY

Source: [https://www.youtube.com/watch?v=iStkxcK6\\_vY](https://www.youtube.com/watch?v=iStkxcK6_vY)

### I Preparation:

#### 1. Read the following terms. Translate them:

*Web 2.0* –

*Social Media* –

*User-generated content* –

*Two-way communication* –

*Augmented Reality* –

#### 2. Do you know what these terms define?

### II Watching:

#### 3. Watch the video explanation of the terms mentioned above and join the phrases in the table:

in 90's ...	a website speaks to the visitors and allows users to speak back to a website
during 90s–2000s ...	users use user-generated content and they can communicate with each other
during 2010s ...	websites bridge the gap between online world and offline world
today ...	website spoke to the website visitors

#### 4. You've watched the video. Write your explanations of the following terms:

1) Web 1.0 ...

2) Web 2.0 ...

3) Social Media ...

4) Augmented Reality ...

### III After-watching:

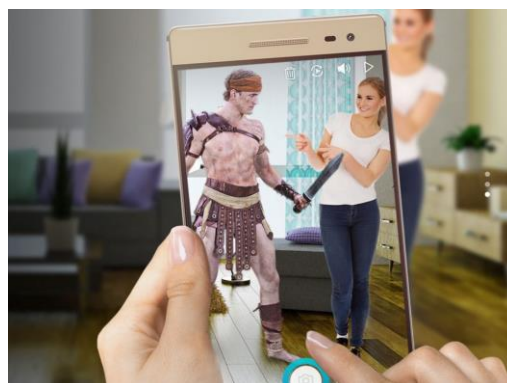
#### 5. What examples of Augmented Reality are given in the video explanation?

### IV Speaking:

#### 6. Browse the net and find out information about one of the following augmented reality apps:



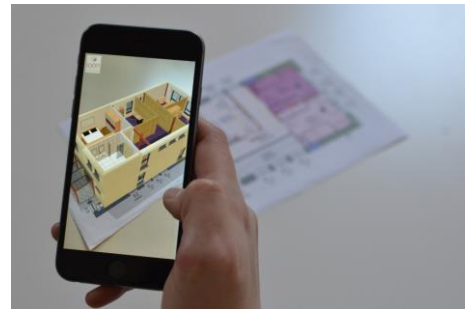
Google Translate



Holo



**City Lens**



**Augment**



**ROAR**



**Wikitude**

## VOCABULARY

### A

ability [ə'bilɪti] – спроможність  
act [akt] – діяти  
activated ['aktiveɪtɪd] – активований  
add [ad] – додавати  
advantage [əd'vɑ:ntɪdʒ] – перевага  
affect [ə'fekt] – впливати  
allow [ə'laʊ] – дозволяти  
antenna [an'tenə] – антена  
appliance [ə'plaiəns] – прилад  
area ['e:riə] – зона, площа  
art [ɑ:t] – мистецтво  
artificial [ɑ:ti'fiʃ(ə)l] – штучний  
assign [ə'saɪn] – призначати  
augmented [ɔ:g'mentɪd] – доповнений

### B

babysit ['beɪbɪsɪt] – нянчити  
bone [bəʊn] – кістка  
brain [breɪn] – мозок  
break apart [breɪk ə'pɑ:t] – розбивати на частини  
bridge [brɪdʒ] – перекривати  
bulb [bʌlb] – лампочка

### C

character ['kærəktə] – символ  
circuit ['sə:kɪt] – схема  
competitor [kəm'petɪtə] – конкурент  
complex ['kɒmpleks] – складний  
component [kəm'pəʊnənt] – складник  
computing [kəm'pjʊ:tɪŋ] – обчислювальний  
conduction [kən'dʌkʃ(ə)n] – провідник  
consist of [kən'sɪst ɒv] – складатися з  
contain [kən'teɪn] – вміщати  
content ['kɒntent] – вміст  
core [kɔ:] – суттєвий  
create [kri:'eɪt] – створювати  
crime [krɪm] – злочин  
cyborg ['saɪbɔ:g] – кіборг

### D

data ['deɪtə] – дані  
decent ['di:s(ə)nt] – пристойний  
defend [dɪ'fend] – захищати  
describe [dɪ'skrɪb] – описувати  
design [dɪ'zɪn] – проектувати  
destroy [dɪ'strɔɪ] – знищувати

detect [dɪ'tekt] – виявляти  
determine [dɪ'tə:mɪn] – визначати  
develop [dɪ'veləp] – розробляти  
devote [dɪ'vəʊt] – присвячувати  
direction [dɪ'rekʃ(ə)n] – напрям  
disabled [dɪs'eɪbld] – з обмеженими можливостями  
disadvantage [dɪsəd'vɑ:ntɪdʒ] – недолік  
disease [dɪ'zi:z] – хвороба  
distribute [dɪ'strɪbjʊ:t] – розподіляти  
dock [dɒk] – док  
domain [də(ʊ)'meɪn] – домен  
download [daʊn'ləʊd] – завантажувати

## **E**

electrician [ɪ:lɛk'trɪʃ(ə)n] – електрик  
embedded [ɪm'bɛd] – вбудований  
encourage [ɪn'kʌrɪdʒ] – заохочувати  
engine ['endʒɪn] – двигун  
engineer [endʒɪ'niə] – інженер  
essential [ɪ'senʃ(ə)l] – необхідний  
exactly [ɪg'zæk(t)li] – точно  
expensive [ɪk'spensɪv] – дорогий  
express [ɪk'spres] – виражати  
extend [ɪk'stend] – розширювати  
extension [ɪk'stɛnʃ(ə)] – розширення

## **F**

fail [feɪl] – зазнати поразки, підвести  
feature ['fi:tʃə] – особливість  
feeder ['fi:də] – живильник  
few [fju:] – мало  
framework ['freɪmwɜ:k] – фреймворк  
frequency ['fri:kw(ə)nsɪ] – частота  
fundamental [fʌndə'ment(ə)l] – основи

## **G**

gap [gæp] – розрив  
gas station [gæs 'steɪʃ(ə)n] – заправка  
glass [glɑ:s] – скло  
guardian ['gɑ:diən] – охоронець

## **H**

handle ['hænd(ə)l] – поводити  
hang out [hæŋ aʊt] – розм. зависати  
high-definition [haɪ defɪ'nɪʃ(ə)n] – високої роздільної здатності  
household ['haʊshəʊld] – господарський  
hub [hʌb] – хаб  
human ['hju:mən] – людський  
humanity [hju'mænɪti] – людство

**I**

improve [ɪm'pru:v] – покращувати  
infrared [ɪnfrə'red] – інфрачервоний  
install [ɪn'stɔ:l] – встановлювати  
integrated ['ɪntɪgreɪtɪd] – інтегральний

**J**

journey ['dʒə:ni] – подорож

**K**

knowledge ['nɒlɪdʒ] – знання

**L**

laser ['leɪzə] – лазер  
lifeless ['laɪfləs] – неживий  
long-term [ˌlɒŋ'tɜ:m] – довготривалий  
lose [lu:z] – програвати, втрачати  
lower-case ['ləʊə keɪs] – нижній регістр

**M**

manage ['mænɪdʒ] – керувати  
measure ['meɪʒə] – вимірювати  
media ['mi:diə] – медіа  
microprocessor [maɪkrə(ʊ)'prəʊsesə] – мікропроцесор  
mind-bogglingly ['maɪndbɒɡlɪŋli] – *розм.* неймовірно швидко  
mistake [mɪ'steɪk] – помилка  
mix [mɪks] – змішувати

**N**

network to ['netwɜ:k tu] – під'єднати (до мережі)

**O**

on a daily basis ['deɪli 'beɪsɪs] – щоденно  
operate ['ɒpəreɪt] – управляти  
opportunity [ɒpə'tju:nɪti] – можливість  
order ['ɔ:də] – наказ

**P**

passionate about ['pɑʃ(ə)nət ə'baʊt] – захоплюватись  
perception [pə'sepʃ(ə)n] – сприйняття  
perform [pə'fɔ:m] – виконувати  
permanent ['pɜ:m(ə)nənt] – постійний  
persistent [pə'sɪst(ə)nt] – стійкий  
pet [pet] – домашній улюбленець  
pick [pɪk] – обирати  
plant [plɑ:nt] – завод  
plug into [plʌg 'ɪntə] – підключити до  
pollution [pə'lu:ʃ(ə)n] – забруднення  
portable ['pɔ:təb(ə)l] – портативний  
power ['paʊə] – потужність  
process ['prəʊses] – обробляти  
promote [prə'məʊt] – просувати

provide [prə'vʌɪd] – забезпечувати

purchase ['pɜ:tʃɪs] – покупка

purpose ['pɜ:pəs] – мета

## **R**

reality [rɪ'ælɪti] – реальність

recently ['ri:sntli] – нещодавно

release [rɪ'li:s] – випускати

reliant [rɪ'laɪənt] – залежний

remote [rɪ'məʊt] – віддалений

repair [rɪ'peɪ] – чинити

resource [rɪ'sɔ:s] – джерело

router ['ru:tə] – маршрутизатор

run [rʌn] – керувати

## **S**

scratchpad ['skrætʃ,pæd] – записник

screen [skri:n] – екран

security [sə'kjʊərədi] – охорона

semicolon [ˌsemɪ'kəʊlən] – двокрапка

semiconductor [ˌsemɪkən'dɪktə] – напівпровідник

sensor ['sensə] – датчик

sequence ['sɪkwəns] – послідовність

set [set] – набір

setup ['sed,əp] – система, установка

short-term ['ʃɔ:t 'tɜ:m] – короткотривалий

silicon ['sɪlɪk(ə)n] – кремній

similar ['sɪm(ə)lə] – схожий

skills [skɪls] – навички

skull [skʌl] – череп

social ['soʊʃəl] – соціальний

solve [sɒlv] – вирішувати

space [speɪs] – простір

spacebar ['speɪs 'bɑ:] – пробіл

specific [spə'sɪfɪk] – конкретний

spin [spɪn] – крутити

statement ['steɪtmənt] – вираження

storage ['stɔ:ɪdʒ] – зберігання

store [stɔ:] – зберігати

support [sə'pɔ:t] – підтримувати

switch [swɪtʃ] – вимикач

switch off [swɪtʃ] – вимикати

syntax ['sɪn,tæks] – синтаксис

## **T**

technician [tek'nɪʃ(ə)n] – технік

temporary ['temp(ə)rəri] – тимчасовий

thought [θɔ:t] – думка



through [θru:] – через  
title ['tʌɪt(ə)l] – назва  
traffic ['trafɪk] – рух, трафік  
transfer [trɑ:ns'fɜ:] – передавати  
tube [tju:b] – трубка  
turn off [tɜ:n] – вимикати  
turn on [tɜ:n] – вмикати  
type [taɪp] – друкувати

## U

ultraviolet [ʌltrə'vʌɪələt] – ультрафіолет  
unreadable [ʌn'reɪdəb(ə)l] – неможливий до прочитання  
upper case ['ʌpə keɪs] – верхній регістр  
useful ['ju:sfʊl] – корисний  
useless ['ju:sləs] – недоцільний  
user-generated ['ju:zə 'dʒenəreɪtɪd] – для користувачів

## V

violate ['vʌɪələɪt] – порушувати  
vision ['vɪʒ(ə)n] – зір  
vitality ['vʌɪt(ə)lɪ] – життєво, крайнє  
vocal ['vəʊk(ə)l] – голосовий  
vulnerable ['vʌln(ə)rəb(ə)l] – уразливий

## W

whale [weɪl] – кит  
wheel [wi:l] – колесо  
wire [waɪə] – провід  
wireless ['waɪələs] – безпроводний

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