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English in the Hyperconnected World:

part 1

Учебное пособие

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PREFACE

Настоящее учебное пособие включает актуальные тексты учебно-познавательной тематики для студентов-бакалавров факультета компьютерных наук и информационных технологий (направление 02.03.02 «Фундаментальная информатика и информационные технологии»).

Целью данного пособия является формирование навыка чтения и перевода научно-популярных и собственно научных текстов, а также развитие устной речи студентов.

Пособие состоит из 4 разделов, рассматривающих значение информационных технологий в современном мире. Каждый из них содержит аутентичные материалы (источники: *Aeon*, *BBC Future*, *Nautilus*, *Psychology Today*, *The Guardian*, *The Atlantic*) и упражнения к ним. Раздел “Supplementary reading” служит материалом для расширения словарного запаса и дальнейшего закрепления навыков работы с текстами по специальности.

Пособие может успешно использоваться как для аудиторных занятий, так и для внеаудиторной практики.

1. Should kids learn to code?

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: code, program, idea, start, numeracy, plastic, robots, initiative

Exercise II

Make sure you know the following words and word combinations: problem-solving skills, computational thinking, logical sequence, to come naturally, to take hold, head start, crucial, compulsory, bootcamp, to convey, to lag behind, to excel

Should kids learn to code?

“Everyone should learn how to program a computer, because it teaches you how to think.” It is now more than 20 years since Steve Jobs said those words. Last year, Britain became the first G7 country to introduce compulsory computer science on the school curriculum for all children aged five to 16. By the age of seven, all children will now be expected to be capable of writing and debugging a simple program. The idea that mastering code is as essential to a successful start in life as numeracy and literacy is starting to take hold of British parents.

Christmas stockings this year will be stuffed with “smart toys” – brightly coloured plastic robots and games that promise to give kids a head start on coding. Since 2013, more than 140 million adults worldwide have downloaded a starter coding lesson from the Hour of Code, a non-profit initiative that aims to increase access to coding skills. What is rather less clear, however, is how many finished and how many gave up halfway through. Learning to code, especially later in life, is not easy. It requires mastery of a problem-solving skill known as computational thinking: breaking down tasks into a logical sequence of smaller steps, discarding unnecessary elements, diagnosing errors and inventing new approaches when the first inevitably fails. (Coders have a saying that there are two solutions to every problem, and then a third that actually works.) (1)

At its simplest, learning to code is simply learning to tell machines what to do. Code is the string of typed instructions a computer follows to do anything from displaying the word “hello” on a screen, to piloting a driverless car through traffic. Send a text, take money from a cashpoint or book a plane ticket, and you are relying on someone having written the code that makes it possible. And since it is impossible to write an app without learning to code, coding is the skill that stands between an entrepreneur with a bright idea and a product in the iTunes store. ‘How do you make toast?’ is an interview question for software developers, because it reveals whether you think computationally. The ideal answer is a couple of steps away from something a robot could understand..And for a robot, clarity and precision are everything. “Take four steps forward, open packet of bread, remove one slice of bread”, for example, is a better start than “put bread in toaster”. Say you wanted to

instruct a robot to randomly pick a name out of a hat, a lot of people will say: ‘Give me a random name’. But what you have to say is: ‘Here are some names; randomly shuffle them and return one to me.’ That’s computational thinking. It does not come naturally to most people. Programming experience and academic qualifications do not matter much, but logical thinking and the ability to cope with uncertainty are crucial. Candidates are deliberately given problems they cannot solve, in order to test their reaction to failure. Most of the time as a developer you don’t really know what you’re doing; your job is to take one really small step in the right direction and then work out how to do the next. We want people who are comfortable with that sense that there’s no right answer. (2)

Just as years of compulsory English lessons failed to make novelists of most parents, coding lessons in school will not turn every child into a programmer. But the idea behind the new government initiatives is that new generations of children will not have to struggle through bootcamps in midlife, because those with an aptitude for coding will have discovered it at an early stage. And those who are less talented, it is thought, will at least gain an understanding of the digital world in which they now live. (3)

The British tech industry, drawing on this new skilled workforce, will – in an ideal world – expand and develop. But this shiny vision has created serious challenges for schools, as teachers are confronted with the task of conveying concepts that hardly existed when they were trained. We are living at a time of such rapid scientific change that our children are accepting as part of their everyday life things that would have been dismissed as science fiction a few years ago. (4)

If Britain was not producing enough computer science graduates to meet industry demand, those few available should have been snapped up. Puzzlingly, though, IT had the highest unemployment rate of any subject analysed by the Higher Education Statistics Agency. In 2013-14, 11% of graduate computer scientists were unemployed, compared to 5% of lawyers and 7% of linguists. Wendy Hall is professor of computer science at the University of Southampton. She claims a 95% employment rate for her students. “There are a number of universities, and I’m not going to name them, that take a lot of candidates who don’t have the kind of qualifications ours have,” she said. “They just aren’t employable at the end of the course, for all sorts of reasons; they haven’t got the background.” The jobs are out there, she insisted, but “we need to support the people who do go on these courses that don’t prepare you so well”. (5)

The skills gap may also have something to do with an industry in a hurry. The sheer speed with which companies now move from idea to product, coupled with the constant fear of being beaten to it by rivals, makes many smaller firms unwilling to risk hiring novices. The sort of people they want are experienced. If juniors cannot get experience, then ultimately you run short of experienced people. The message to companies is: take on young people. This learning needs to start earlier. Since the mid-2000s, a small band of academics, teachers and computer scientists had been trying, and failing, to convince ministers that school IT classes were lagging hopelessly behind the times. They were “banging their heads against a brick wall”. Teaching word processing packages and PowerPoint was all very well, they argued, but to become programmers, children needed to understand how

computers work. We're teaching too many kids in schools how to use applications, not to build them. While it is relatively easy for non-specialists to teach basic office IT skills, teaching computational thinking requires much more in-depth knowledge. However, more than half of those currently working as IT teachers do not have a computing degree. (6)

Digital jobs expanded three times faster than the national average between 2009 and 2012, and are pretty much the only area where employment growth is happening. New potential growth areas range from virtual-reality gaming to the “internet of things”, which will enable machines to effectively talk to one other – for example, your fridge might ping a message to your phone when there is no more milk left, or you might turn on the central heating before you get home via a smartphone app. All this means ever more sophisticated fridges and ever more coders to programme and fix them. (7)

The tech industry is overwhelmingly male-dominated. Girls don't want to fail. They seem to fear it more than boys, and the whole thing about learning to code is that you make mistakes. You've got to accept failures. Great programmers tend to be what neuroscientists call “systemisers”, excelling at logical analysis and spotting patterns, but not always good at reading people. But simply recruiting more women will not change the culture by itself (systemisers tend to hire people of both sexes who they think are like them and seem to “fit in”). The most universally appealing products are those combining both skill sets; the ideal employee of the future may need to be able to work well with both people and machines; to “think human” as well as to think

computationally. Research suggests that “thinking human” in a machine age is a surprisingly useful skill. (8)

Adapted from The Guardian.

Exercise III.

Find paragraphs, dealing with the following:

random name, smart toys, virtual-reality gaming, numeracy, literacy, ping, male-dominated, neuroscientists, pattern, initiative

Exercise IV.

Fill in the gaps according to the text.

1. “Everyone should learn how to program a computer, because it teaches you how to think.” It is now 20 years since..... said those words.
2. Last year..... became the first G7 country to introduce compulsory computer science on the school curriculum for all children aged five to 16.
3. By the age of , all children will now be expected to be capable of writing and debugging a simple program.
4. Since, more than 140 million adults worldwide have downloaded a starter coding lesson from the Hour of Code, a non-profit initiative that aims to increase access to coding skills.
5. It requires mastery of a problem-solving skill known as thinking: breaking down tasks into a logical sequence of smaller steps, discarding unnecessary elements, diagnosing errors and inventing new approaches when the first inevitably fails.

6. And since it is impossible to write an app without learning to code, coding is the skill that stands between an with a bright idea and a product in the iTunes store.
7. For a robot, and precision are everything.
8. experience and academic qualifications do not matter much, but logical thinking and the ability to cope with uncertainty are crucial.
9. Candidates are deliberately given problems they cannot , in order to test their reaction to failure.
10. Most of the time as a developer you don't really know what you're doing; your job is to take one really small step in the right direction and then work out how to do the.....

Exercise V.

Make up sentences of your own with the following word combinations:
problem-solving skill (1), computational thinking (1), logical sequence (1), come naturally (2), random name (2), programming experience (2), at its simplest (2), ping a message (7) , turn on (7), the central heating (7)

Exercise VI.

Determine whether the statements are true or false. Correct the false statements:

1. "Everyone should learn how to program a computer, because it teaches you how to think." It is now 10 years since Steve Jobs said those words.

2. Last year Germany became the first G7 country to introduce compulsory computer science on the school curriculum for all children aged five to 16.
3. By the age of seventeen, all children will now be expected to be capable of writing and debugging a simple program.
4. Since 2013, more than 40 million adults worldwide have downloaded a starter coding lesson from the Hour of Code, a non-profit initiative that aims to increase access to coding skills
5. Learning to code, especially later in life, is easy.
6. Coders have a saying that there is one solution to every problem, and then a second that actually works.
7. At its simplest, learning to code is simply learning to tell machines what to do.
8. Logical thinking and the ability to cope with uncertainty do not matter much, but programming experience and academic qualifications are crucial.
9. Candidates are deliberately given problems they can solve.
10. Most of the time as a developer you really know what you're doing; your job is to take one really small step in the right direction and then work out how to do the next.

Exercise VII .

Match the words to the definitions in the column on the right:

robot	a scientist who studies the nervous system and the brain
numeracy	intelligent, or able to think quickly or intelligently in difficult situations

code	to send an email or text message
curriculum	the ability to read and write
compulsory	to represent a message in code so that it can only be understood by the person who is meant to receive it
smart	required by law or a rule; obligatory
neuroscientist	the subjects studied in a school, college, etc. and what each subject includes
pattern	ability to do basic mathematics
literacy	a machine controlled by a computer that is used to perform jobs automatically
ping	a particular way in which something is done, is organized, or happens

Exercise VIII.

Summarize the article “Should kids learn to code?”

Part 2

Exercise I.

Identify the part of speech the words belong to.

compulsory, curriculum, numeracy, literacy, smart, brightly, plastic, robot, neuroscientist, pattern

Exercise II.

Form verbs from the following words:

starter (1), coding (1), driverless (2), developers (2), reaction (2), employment (5), hopelessly (6), growth (7), analysis (8) useful (8)

Exercise III.

Find synonyms to the following words. Translate them into Russian:
 compulsory(1), curriculum (1), robot(1), smart (1), pattern (1), initiative (1), to increase (1), access (1), skill(1), clear (1)

Exercise IV.

Find antonyms to the following words. Translate them into Russian:
 compulsory (1), to increase (1), skill (1), clear (1), growth (7), central(7), heating(7), useful (8), ideal (8), fail(8)

Exercise V.

Match the words to make word combinations:

central	gaming
academic	skill
programming	toys
logical	name
smart	sequence
problem-solving	experience
school	qualification
smart	heating
random	thinking
virtual-reality	curriculum

Exercise VI.

QUIZ (Computer Terms)

- 1) Which of the following is the lowest level of computer language?
- A. assembler
 - B. machine language
 - C. PASCAL
 - D. FORTRAN
- 2) The term 'GUI' stands for...
- A. Graphical User Interface
 - B. Graphics Unused Input
 - C. Graphing Ultimate Interface
 - D. Gorgeous Unidentified Idiot
- 3) The keyboard layout designed by Sholes is :
- A. QWERTY
 - B. YUIOP
 - C. DVORAK
 - D. SHOESLAY
- 4) Who is usually referred to as the 'Father of Computers' ?
- A. Marie Curie
 - B. Charles Babbage
 - C. Bill Gates
 - D. Blaise Pascal
- 5) The first IBM PC was released to the public prior to 1985.
- A. True
 - B. False
- 6) Which of the following is not a database program?
- A. Oracle
 - B. MS-Access
 - C. MS-Word
 - D. FileMaker Pro
- 7) What is the word 'pixel' short for?
- A. picture element
 - B. pixelised point
 - C. pixel (it is not short for anything)
 - D. Edward Pixelli

8) RAM refers to 'Random Access Memory'

- A. True
- B. False

9) Which of the following is generally used as a computer input device?

- A. keyboard
- B. laser printer
- C. standard monitor
- D. speaker

10) 'WYSIWYG' is a great little computer word. But what does it stand for?

- A. What You See Is What You Get
- B. Where Your System Is Worded You Get
- C. World Youth Syndicate Internet Wide Yesterday Group
- D. What Your System Is Winning You're Growing

2. Generation of Millenials

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: plan, group, characteristics, focus, regularly, psychology, materialistic, analysis

Exercise II

Make sure you know the following words and word combinations:

to feed the fire, high school seniors, college freshmen, to leave something to be desired, college graduate, critical thinking, problem-solving skills, common set, human needs, coddled, opinionated, whiny, incompetence, publicity, disengaged, self-absorbed, to deploy, off-putting, deferential, stymie, validation, to eliminate.

Generation of Millenials

They're narcissistic. Impatient. And just try to get them to work nine to five. Trouble is, the conventional view of Millennials just may be all wrong.

Steven Clarke is 25 years old and ready to rule the world of real estate. He freely admits that he expects to be making millions of dollars within the next year. He is so sure of this, in fact, that he informed everyone in his office—the majority of whom range in age from 40 to 60—of his plans. They were not impressed."You could definitely tell they thought, 'Who is this person and why does he think he

can do something that took me years to do?" Clarke's hubris is not unique, at least not for someone in his age group. A so-called Millennial, or member of Generation Y, one of the 76 million people born roughly between 1982 and 2004, Clarke perfectly exemplifies the characteristics of so many of his peers, especially in the workplace. They are thought to be narcissistic, self-promotional, coddled, opinionated, whiny, especially at work (when they're not complaining about unemployment). They seek constant feedback and immediate gratification. They multitask and can't focus. They're sensitive to criticism and unable to work alone. They refuse to pay their dues. Don't even mention their (limited) verbal and writing skills. There are a lot of people who are really angry at them. Newspaper and magazine articles only feed the fire, regularly chronicling Millennial incompetence. For example, wide publicity attended a study that analyzed 9 million high school seniors and college freshmen and found that Millennials are more materialistic, more politically disengaged, and less concerned about helping the world at large than other generations were at the same ages. It was found that Millennials tend to be especially self-absorbed. Cross-generational data analysis of college students shows that recent cohorts are especially narcissistic, believing they are above average and deploying more "I"s and "me"s in their writing. Millennials' work ethic also leaves something to be desired, the stereotype goes. (1)

In a 2006 study of executives and human resource managers at more than 400 companies, most said that today's college graduates had only "adequate" professionalism, innovation, creativity, critical thinking, and problem-solving skills. Each generation has a common set of human needs that are uniquely shaped by their life experiences but are

foreign to anyone outside that age group. Millennials are no more spoiled or cantankerous than any other generation; they're just solving their basic needs for community and communication differently from anyone before them. Millennials blur the lines between work and life. Every day is Casual Friday. They can't comprehend why they must go to the office at all. According to a 2013 study, it's "time and flexibility"—not financial compensation or benefits—that help keep Millennials loyal to their employer. Millennials' behaviors, values, and attitudes are a response to rapidly shifting societal and generational forces, such as the technological and economic implications of the Internet. They have a different value set—on global interconnectedness, the Internet, cell phones, instantly knowing what's going on in the world. They're smart, talented, socially connected globally, quick thinking, technically savvy. Older folks ridicule the Millennial obsession with smartphones, but they are overlooking what the technology represents: an efficient means to maintain communication. Young people have been raised with technology answering their every beck and call, so this type of efficiency is sought after in the real world as well. They're used to instant results and never-ending attention. And then there's self-promotion, a byproduct of technology. But how else can you stand out from the competition? That's happening with everyone anyway. Because of social networks, everyone has to think, 'What's my reputation?' If people want to stand out when recruiters look online, they have to build an online presence and a personal brand or someone else will. Millennials also have a different take on the concept of respect. They want to be praised—often—and they long to be taken seriously, but

they're not so quick to return the compliment. To them respect is something earned, and not a given. Millennials have self-confidence and assuredness, and these characteristics can be off-putting to people in older generations who feel that because of their age and experience young people should be more deferential toward them. But this is not a deferential generation. Christine Porat, a professor of management at Georgetown's School of Business, puts it this way: "Certainly, Millennials are appreciated for their use of technology and skills around that, for their ability to multitask and their teamwork skills. But I hear complaints about their desire and demand for respect—that they have a need for respect but an inability to give it. Respect has a different feel across generations." (2)

Millennials have no company loyalty. But they'd like to. If a position doesn't meet their expectations, why stick around? The 2013 survey found that 54 percent of Millennials think that periodic job changes increase their career potential. Such an outlook comes from Millennials' mindset around winning and losing—much of which was shaped by technology. This generation learned about winning from gaming, where you re-set. That's exactly what they're doing in the workplace: "This isn't working for me; it's a re-set. Goodbye." Perhaps more than any other group, Millennials have been urged to follow their bliss. They have been taught to expect fireworks from day one if they choose according to their passion. They're stymied when facing the much less glamorous reality of the entry level. They're also used to Being Noticed, putting their personal stamp on everything from their cars to their cell phones. But they have also been working collaboratively since elementary school. Being left alone is their idea of

hell, which explains why they need a constant stream of feedback. (One survey found that 80 percent of Millennials said they wanted regular feedback from their manager.) Semi-annual reviews frustrate this group; they want to know how they're doing now, not six months from now. Who knows where they'll be in six months? (3)

While cultural factors and technological advances have certainly shaped much of Millennial behavior, there's also another contributor: the brain. In decades past, children were considered mature by the time they reached their teens. But today, young people prolong adolescence well into their 20s, which has created a demographic called "emerging adults." In part the economic environment has changed—unemployment has forced Millennials to live with their parents well past their expiration date. And, too, their brains are still developing. The prefrontal cortex, home to judgment, impulse control, and decision-making, doesn't mature until the mid-20s. That's one of the reasons that Millennials tend to rely on one another for decision-making; they need validation from their social networks before doing anything. The developing brain also affects the way Millennials digest information. They are interested only in the information needed to complete the task at hand. Millennials say, 'When I need it, I will learn it. If the relevance isn't observable, their attention won't be there. The task of Millennials in learning is to understand how to eliminate unnecessary information; in previous generations finding the right information was the challenge. Another element delaying development is their upbringing by "helicopter" parents, who infantilized them. One recent study found that 52 percent of people ages 18 to 25 phone, email, or text their parents daily. Their parents return the gestures. The same helicopter parents—

the ones who handed out prizes and awards even when their child finished in fifteenth place—often accompany their offspring into the workforce, applying to jobs, attending interviews, even negotiating salaries for their offspring. The extended parental connection is unnatural and impedes their ability to function in the real world. Deblauw recalls a young recruit he interviewed for a finance position. "I started walking with the candidate and the mom followed," Deblauw says. "She said, 'I want to make sure my daughter tells you all these things; she's nervous, but she's a hard worker.' I was shocked. How could she not know that this was inappropriate?" The daughter didn't get the job. (4)

Adapted from Psychology Today.

Exercise III.

Find paragraphs, dealing with the following:

foreign, cantankerous, blur, ridicule, semi-annual, hubris, peer, opinionated, gratification, criticism

Exercise IV.

Fill in the gaps according to the text.

1. A so-called Millennial, or member of Generation..... , one of the 76 million people born roughly between 1982 and 2004.

2. For example, wide publicity attended a study that analyzed 9 million high school seniors and college freshmen and found that are more materialistic, more politically disengaged, and

less concerned about helping the world at large than other generations were at the same ages.

3. It was found that Millennials tend to be especially.....

4. Cross-generational data analysis of college students shows that recent cohorts are especially..... , believing they are above average and deploying more "I"s and "me"s in their writing.

5. In a study of executives and human resource managers at more than 400 companies, most said that today's college graduates had only "adequate" professionalism, innovation, creativity, critical thinking, and problem-solving skills.

6. Each generation has a common set of that are uniquely shaped by their life experiences but are foreign to anyone outside that age group.

7. Millennials..... the lines between work and life.

8. According to a study, it's "time and flexibility"—not financial compensation or benefits—that help keep Millennials loyal to their employer.

9. Older folks ridicule the Millennial obsession with..... .

10. people have been raised with technology answering their every beck and call, so this type of efficiency is sought after in the real world as well.

Exercise V.

Make up sentences of your own with the following word combinations:

to feed the fire (1), high school seniors (1), college freshmen (1), to leave something to be desired (1), college graduate (1), common set (2), human needs (2), life experience(2), be foreign to (2), to blur the lines (2)

Exercise VI.

Determine whether the statements are true or false. Correct the false statements:

1. A so-called Millennial, or member of Generation Y, one of the 76 million people born roughly between 1982 and 1990, Clarke perfectly exemplifies the characteristics of so many of his peers, especially in the workplace.

2. For example, wide publicity attended a study that analyzed 9 million high school seniors and college freshmen and found that Millennials are less materialistic, less politically disengaged, and less concerned about helping the world at large than other generations were at the same ages.

3. It was found that Millennials tend to be especially self-absorbed.

4. Millennials' work ethic also leaves something to be desired, the stereotype goes.

5. In a 2006 study of executives and human resource managers at more than 100 companies, most said that today's college graduates had only "adequate" professionalism, innovation, creativity, critical thinking, and problem-solving skills.

6. Each generation has a common set of human needs that are uniquely shaped by their life experiences but are foreign to anyone outside that age group.

7. Millennials are more spoiled or cantankerous than any other generation. 8. Millennials can comprehend why they must go to the office

9. According to a 2013 study, it's financial compensation or benefits—not "time and flexibility"—that help keep Millennials loyal to their employer.

10. Millennials' behaviors, values, and attitudes are a response to rapidly shifting societal and generational forces, such as the technological and economic implications of the Internet.

Exercise VII .

Match the words to the definitions in the column on the right:

verbal	to do several different jobs at the same time
opinionated	a person who is the same age or has the same social position or the same abilities as other people in a group
unemployment	traditional and ordinary
due	a person is certain about their beliefs, and express their ideas strongly and often
immediate	a group of houses or factories built in a planned way
estate	a way of talking or behaving that is too proud
multitask	the official payments that you make to an organization you belong to
conventional	the number of people who do not have a job that provides money
hubris	happening or done without delay or very soon after something else
peer	spoken rather than written

Exercise VIII.

Summarize the article “Generation of Millenials.”

Part 2

Exercise I.

Identify the part of speech the words belong to.

narcissistic, impatient, conventional, estate, hubris, unique, unemployment, constant, immediate, gratification

Exercise II.

Form nouns from the following words:

impatient (1), unique (1), impressed (1), self-promotional (1), politically (1), differently (2), comprehend (2), financial (2), technological (2), economic (2)

Exercise III.

Find synonyms to the following words. Translate them into Russian:

impatient (1), conventional (1), estate (1), majority (1), hubris (1), unique (1), peer (1), opinionated (1), constant (1), immediate (1)

Exercise IV.

Find antonyms to the following words. Translate them into Russian:

impatient (1), conventional (1), majority (1), hubris (1), unique (1), opinionated (1), constant (1), immediate (1), gratification (1), sensitive (1)

Exercise V.

Match the words to make word combinations:

semi-annual	Friday
-------------	--------

financial	set
critical	ethic
college	resource
life	skills
work	experience
human	review
common	thinking
Casual	freshmen
problem-solving	compensation

Exercise VI.

QUIZ (More Computing Terms)

1) Which device has a "platen?"

- A. modem
- B. scanner
- C. joystick
- D. monitor

2) For which of the things you produce with your computer system might you be concerned about "kerning?"

- A. photos
- B. movies
- C. MP3 music files
- D. text output

3) Which device you bought for your computer has a "bezel?"

- A. mouse

- B. steering wheel
- C. microphone
- D. monitor

4) For which product might you create a "schema?"

- A. e-mail message
- B. save game file
- C. greeting card
- D. database

5) You're working with a digital photograph, and you want to remove Dad's ugly shoes from the bottom of the image before you make a nice print. So you take that image into a photo editor and _____ it.

6) Your computer has a toasted "chipset." What can you do?

- A. get the dip, here's a free snack
- B. nothing, it will not compute
- C. spray canned dust-off air into the cooling fan inlet
- D. rap firmly but gently on the computer case with your knuckles

7) What in or on your computer would you want to be "rendered?"

- A. an MP3 music file
- B. the guy who outbid you on eBay with three seconds to go
- C. the FAT32 file system
- D. the image on the display

8) What is all that unwanted, unsolicited junk mail in your e-mail inbox called?

9) One of those many tiny dots of colored light that make up a digitized image is a...

A. diphthong

B. reticle

C. pixel

D. opticon

САРАТОВСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ ИМЕНИ Н. Г. ЧЕРНЫШЕВСКОГО

3. When are you really an adult?

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: period, myth, marker, collection, history, abstract, ideal, financially, stable, career

Exercise II

Make sure you know the following words and word combinations.

venerated, eschew, lament, array of options, be out in the world, multifaceted, to make sense, to figure out, to pay off one's student debt, to have your ducks in a row, to assume, reckless, welfare, to zero in, commitment, identity, permanent, to flip the switch, ambiguity

When are you really an adult?

In an age when the line between childhood and adulthood is blurrier than ever, what is it that makes people grown up?

Young people often went through periods of independence interspersed with periods of dependence. If that seems surprising, it's only because of the myth that the transition to adulthood was smoother in the past. In fact, if you think of the transition to "adulthood" as a collection of markers—getting a job, moving away from your parents, getting married, and having kids—for most of history people did not

become adults any kind of predictable way. And yet these are still the venerated markers of adulthood today, and when people take too long to acquire them, or eschew them all together, it becomes a reason to lament that no one is a grown up. Many young adults still feel like kids trying on their parents' shoes. All of a sudden you're out in the world, and you have this insane array of options, but you don't know which you should take. (1)

Age alone does not an adult make. But what does? There is either no answer, or a variety of complex and multifaceted answers. I put out a call to readers to tell me when they felt they became grown-ups (if indeed, they ever did), and I've included some of their responses. *Becoming an adult" is sort of abstract concept than I'd thought when I was younger. I just assumed you'd get to a certain age and everything would make sense. At 28, I can say that sometimes I feel like an adult and a lot of the time, I don't. I can't figure out if I'm supposed to get another degree or somehow travel the world and make it look effortless online. Mostly it just looks like taking a job that won't ever pay off my student debt in a field that is not the one that I studied. Then, if I hold myself to the traditional ideal of what it means to be an adult, I'm also not nailing it. I am unmarried, and not settled into a long term, financially stable career. Recognizing that I'm holding myself to an unrealistic standard considering the economic climate, it's unfair to judge myself, but I confess I fall into the trap of comparison often enough. Sometimes because I simply desire those things for myself, and sometimes because Instagram. My ducks are not in a row, they are wandering.* (2)

Adulthood is a social construct. For that matter, so is childhood. But like all social constructs, they have real consequences. They determine who is legally responsible for their actions and who is not, what roles people are allowed to assume in society, how people view each other, and how they view themselves. But even in the realms where it should be easiest to define the difference—law, physical development—adulthood defies simplicity. In the United States, you can't drink until you are 21, but legal adulthood, along with voting and the ability to join the military, comes at age 18. Or does it? Kids can hold a job as young as 14, depending on state restrictions, and can often deliver newspapers, babysit, or work for their parents even younger than that. Chronological age is not a particularly good indicator of maturity, but it's something we need to do for practical purposes. We all know people who are 21 or 22 years old who are very wise and mature, but we also know people who are very immature and very reckless. (3)

I don't think I've become an adult just yet. I'm a 21 year-old American student who lives almost entirely off of my parent's welfare. I feel that only when I'm able to support myself financially will I be a true "adult." Some of the traditional markers of adulthood (turning 18, turning 21) have come and gone without me feeling any more adult-y, and I don't think that marriage would make me feel grown up unless it was accompanied by financial independence. Money really matters because past a certain age it is the main determiner of what you can and cannot do. And I guess to me the freedom to choose all "the things" in your life is what makes someone an adult. (4)

The establishment of a sort of institutionalized transition time, when people are in school until they're 21 or 22, corresponds

pretty well with what scientists know about how the brain matures. At about age 22 or 23, the brain is pretty much done developing. That's not to say you can't keep learning—you can! Neuroscientists are discovering that the brain is still “plastic” and changeable throughout life. Adult plasticity still allows for modifications to the brain, but at that point, the neural structures aren't going to change. It's like the difference between remodeling your house and redecorating it. (5)

The difficulty many 18-to-25-year-olds had in answering “Are you an adult?” led Jeffrey Arnett in the late '90s to lump those ages into a new life stage he called “emerging adulthood.” Emerging adulthood is a vague time between adolescence and true adulthood. It's so vague that Jensen Arnett, a research professor of psychology at Clark University, says he sometimes uses 25 as the upper boundary, and sometimes 29. While he thinks adolescence clearly ends at 18, when people typically leave high school and their parents' homes, and are legally recognized as adults, one leaves emerging adulthood... whenever one is ready. This vagueness has led to some disagreement over whether emerging adulthood is really a distinct life stage. Some find it more helpful to think about adolescence as having been lengthened. Other critics of the emerging adulthood concept write that just because the years between 18 and 25 (or is it 29?) are a transitional time, that doesn't mean they represent a separate developmental stage. “There might be changes in living conditions, but human development is not synonymous with simple changes,” reads one study. What's really important is that the transition into adult roles is taking longer and longer. There are now, for many people, several years when they are free of their parents, out of school, but not tied to spouses or children. Part of the reason for this

may be because being a spouse or a parent seem to be less valued as necessary gateways to adulthood. (6)

Over the course of his research on this, Jensen Arnett has zeroed in on what he calls “the Big Three” criteria for becoming an adult, the things people rank as what they most need to be a grown-up: taking responsibility for yourself, making independent decisions, and becoming financially independent. These three criteria have been ranked highly not just in the U.S., but in many other countries as well, including China, Greece, Israel, India, and Argentina. But some cultures add their own values to the list. In China, for example, people highly valued being able to financially support their parents, and in India people valued the ability to keep their family physically safe. Of the Big Three, two are internal, subjective markers. You can measure financial independence, but are you otherwise independent and responsible? That’s something you have to decide for yourself. When the developmental psychologist Erik Erikson outlined his influential stages of psychosocial development, each had its own central question to be (hopefully) answered during that time period. In adolescence, the question is one of identity—discovering the true self and where it fits into the world. In young adulthood, Erikson says, attention turns to the development of friendships and romantic relationships. Anthony Burrow, an professor at Cornell University, studies the question of whether young adults feel like they have purpose in life. He and his colleagues found in a study that purpose was associated with well-being among college students. In Burrow’s study, commitment to a purpose was associated with higher life satisfaction and positive feelings. They also measured identity and purpose exploration, having people rate statements like “I am seeking a

purpose or mission for my life.” Both kinds of exploration significantly predicted feeling worse and less satisfied. But other research has identified exploration as a step on the path to forming an identity, and people who’ve committed to an identity are more likely to see themselves as adults. (7)

The late teen years and early twenties are probably the best time to explore. In midlife because of family demands, because of work demands, not only are people likely exploring who they are less, but if they do it may come at a bigger cost. *Let me preface by saying I'm revolted by people in their late 30s and 40s saying they feel like children, haven't "found themselves," or don't know what they want to do when they "grow up."* I went to medical school in my early 20s. By the age of 26 I was an intern in San Francisco. That year my fellow residents and I told every sort of relative that someone had died: spouse, child, parent or friend. We told people they had cancer, HIV. We stayed in the hospital for 36 hour shifts. By the start I was an adult and treated as such. We were young, and sometimes it showed, but none of us were children. So that's when I felt like an adult. The question of when a tree becomes a tree and no longer a sapling is obviously impossible to determine. Same with any slow and gradual process. All I can say is that the adult potential was there, ready to grow up and be responsible. Without focus, work, hardship I can imagine someone still believing they are a child at 35-45: I meet them sometimes! And it is horrific. (8)

For each of life’s stages, according to education researcher Robert Havighurst, there is a list of tasks to be accomplished. Unlike the individualistic criteria people report today, his tasks for adulthood were very concrete: Finding a mate, learning to live with a partner, starting a

family, raising children, beginning an occupation, running a home. Havighurst developed his theory during the '40s and '50s, and in his selection of these tasks, he was truly a product of his time. The economic boom that came after World War II made adulthood more attainable than it had ever been. Even for very young adults. There were enough jobs available for young men and they sometimes didn't need a high-school diploma to get a job that could support a family. And social mores of the time strongly favored marriage over unmarried cohabitation: spouse, house, kids. But this was a historical anomaly. Except for the brief period following World War II, it was unusual for the young to achieve the markers of full adult status before their mid- or late twenties. The golden age of easy adulthood didn't last long. Starting in the 1960s, the marriage age began to rise again and secondary education became more and more necessary for a middle class income.

(9)

Many young people, Jensen Arnett says, still want these things—to establish careers, to get married, to have kids. (Or some combination thereof.) They just don't see them as the defining traits of adulthood. Unfortunately, not all of society has caught up, and older generations may not recognize the young as adults without these markers. A big part of being an adult is people treating you like one, and taking on these roles can help you convince others—and yourself—that you're responsible. With adulthood as with life, people may often end up defining themselves by what they lack. In her 20s, Williams Brown, the author of *Adulthood*, was focused mainly on her career, purposefully so. But she still found herself looking wistfully to her friends who were getting married and having kids. "It was still really hard to look at

something that I did want, and do want, that other people had and I didn't," she says. "Even though I knew the reason I didn't have that, was due to my own decisions." Williams Brown is now 31, and just a little more than a week before we spoke, she got married. Did she feel different, more adult, having achieved this big milestone? "I really thought it would feel mostly the same, because my husband and I have been together for almost four years now, and we've lived together for a good portion of that," she says. "Emotionally...it just feels a little more permanent. He said the other day that it makes him feel both young and old. Young in that it's a new chapter, and old in that for a lot of people, the question of who you want to spend your life with is a pretty central question for your 20s and 30s, and having settled that does feel really big and momentous." (10)

I think I only truly felt like an adult driving home from hospital, sitting in the back seat of our car with our tiny daughter. While my husband drove more carefully than he ever had before, I couldn't take my eyes off of her... I worried that she seemed much too small for her car seat, that she might suddenly stop breathing, or her little head could tip over. I think we both couldn't believe that we were now in charge, by ourselves, of this tiny human. We were totally responsible for this baby's existence. Suddenly there was someone else to think of and consider in every decision you made. Of all adulthood's many responsibilities, the one I hear most often cited as transformative is parenthood. Of the responses readers sent in about their adult transitions, the most common answer was "When I had children." It's not that you can't be an adult unless you have kids. But for people who do, it often

seems to be that flip-the-switch moment. “I really felt like an adult when I held my child in my arms for the first time,” Matthew, a reader, said. “Before this event, I felt like an adult on and off throughout my 20s and early 30s, but never really had a grasp of the thing.” (11)

For a long time, I've been waiting for that “I am an adult” feeling. I am 27 years old, married, living on my own, and employed as a manager at a successful hotel company. I expected all of these things, age, marriage, career, to trigger the feeling. Looking back, I think I was asking the wrong question. I don't think I spent a lot of time as a child or teenager. I have worked since I was 13 and I worked with other kids my age. Our parents were immigrants who made little more than us. I think for some of us, we reached adulthood before we realized it. (12)

With all this ambiguity and subjectivity around when a person is really an adult, psychologists suggest another way of thinking about it: “I’d want you to consider reversing your question. “When are you really a child?” These adult roles that everyone’s so worried about being taken on too late, what about people who have kids at 15? Circumstances sometimes thrust people into adult roles before they’re ready. “I have interviewed many people who’ll say, ‘Oh, I was an adult a long time ago,’” Jensen Arnett says. “It almost always is connected to taking on responsibilities much earlier than most people do.” Do those people experience emerging adulthood? If the world is treating someone as an adult before they feel like one that can be challenging. (13)

We can state that there are likely to be many emerging adulthoods—many forms the experience of this life stage can take. From a critic’s perspective, you could say that if emerging adulthood can be many things, then it is nothing in particular. But it’s not for me to

answer that. What is clear is that there's no one path to adulthood. Being an adult isn't always a desirable thing. Independence can become loneliness. Responsibility can become stress. What adulthood means in a society is an ocean fed by too many rivers to count. For Williams Brown, it's that "I am really and truly only in charge of myself". (14)

Adapted from The Atlantic.

Exercise III.

Find paragraphs, dealing with the following: lament, array, multifaceted, flip-the-switch, remodeling, lump, romantic, boom, diploma, cohabitation

Exercise IV.

Fill in the gaps according to the text.

1. Adulthood is aconstruct.
2. Like all social constructs, they have real.....
3. In....., you can't drink until you are 21, but legal adulthood, along with voting and the ability to join the military, comes at age 18.
4. Chronological age is not a particularly good indicator of....., but it's something we need to do for practical purposes.
5. The establishment of a sort of institutionalized transition time, when people are in school until they're 21 or 22, corresponds pretty well with what scientists know about how the matures.
6. At about age....., the brain is pretty much done developing.

7.are discovering that the brain is still “plastic” and changeable throughout life.
8. Jensen Arnett, a research professor of psychology at Clark University, says he sometimes uses as the upper boundary, and sometimes 29.
9. Over the course of his research on this, Jensen Arnett has zeroed in on what he callscriteria for becoming an adult, the things people rank as what they most need to be a grown-up: taking responsibility for yourself, making independent decisions, and becoming financially independent.
10. In China, for example, people highly valued being able to financially support their parents, and inpeople valued the ability to keep their family physically safe.

Exercise V.

Make up sentences of your own with the following word combinations: array of options (1), be out in the world(1), multifaceted (2), put out (2), make sense (2), figure out (2), pay off one’s debt (2), confess(2), fall into the trap of (2), take responsibility (7)

Exercise VI.

Determine whether the statements are true or false. Correct the false statements:

1. In the United States, you can’t drink until you are 21, but legal adulthood, along with voting and the ability to join the military, comes at age 30.

2. Chronological age is a particularly good indicator of maturity, but it's something we need to do for practical purposes.
3. We all know people who are 21 or 22 years old who are very wise and mature, but we also know people who are very immature and very reckless.
4. The establishment of a sort of institutionalized transition time, when people are in school until they're 18 or 20, corresponds pretty well with what scientists know about how the brain matures.
5. At about age 22 or 23, the brain is pretty much done developing.
6. Neuroscientists are discovering that the brain is still "plastic" and changeable throughout life.
7. Jensen Arnett, a research professor of psychology at Clark University, says he sometimes uses 25 as the upper boundary, and sometimes 29.
8. In Erikson's study, commitment to a purpose was associated with higher life satisfaction and positive feelings.
9. Havighurst developed his theory during the '50s and '60s
10. Starting in the 1960s, the marriage age began to rise again and secondary education became more and more necessary for a middle class income.

Exercise VII .

Match the words to the definitions in the column on the right:

immature	deliberately avoid using
lament	a change from one form or type to another, or the process by which this happens

childhood	false idea
eschew	express passionate grief about
smooth	the state or condition of being fully grown or mature
predictable	a person or animal that has grown to full size and strength
transition	the state or period of being a child
myth	not fully developed
adulthood	happening without any sudden changes, interruption, or difficulty
adult	happening or behaving in a way that you expect and not unusual or interesting

Exercise VIII.

Summarize the article “When are you really an adult?”

Part 2

Exercise I.

Identify the part of speech the words belong to.

independence, smooth, transition, predictable, lament, immature, multifaceted, confess, comparison, responsibility

Exercise II.

Form nouns from the following words: venerated (1), define (3), deliver (3), wise (3), mature(3), responsible (7), consider (11), employed (12) successful (12), desirable (14)

Exercise III.

Find synonyms to the following words. Translate them into Russian:

period (1), myth (1), smooth(1), transition(1), kid(1), predictable(1), adult(1), venerated(1), eschew (1), lament(1)

Exercise IV.

Find antonyms to the following words. Translate them into Russian:

independence (1), adulthood (1), smooth (1), predictable(1), adult (1), lament(1), immature(3), allow(5), difference (5), difficulty (6)

Exercise V.

Match the words to make word combinations:

research	age
secondary	answer
state	stage
middle	boundary
back	professor
life	education
flip-the-switch	seat
upper	restrictions
common	moment
marriage	class

Exercise VI.

QUIZ (Hard Drive Basics)

1) The first hard disks, created in the 1950s, could be up to 20 inches in diameter. Which company invented the hard disk?

- A. Intel
- B. IBM
- C. Xerox
- D. HP

2) When purchasing a hard disk which of these is generally NOT a specification that would be of concern?

- A. capacity
- B. data rate
- C. mounting holes
- D. seek time

3) Inside the hard disk drive, where is the data actually stored?

- A. heads
- B. platters
- C. coils
- D. spindles

4) When a user formats a disk, they are generally performing a high-level format which prepares the drive to hold data. When a low-level format is performed, how does it divide the platter?

- A. bits and bytes
- B. sectors and tracks
- C. kilobytes and megabytes
- D. read and write

5) Hard drive failure rates are measured with MTBF (Mean Time Between Failures). Which of these failures would be reason to replace your current hard disk?

- A. file delete
- B. can't read CDs
- C. application removal
- D. head crash

6) An external hard disk is often purchased by the home computer user for backups of the main hard disk (generally installed internally to the computer case). Which of these interfaces is commonly used for this purpose?

- A. USB
- B. SafeStore
- C. 8" floppy

D. EIDE

7) Which of these refers to the hard drive circuit board?

A. PCB

B. CBCB

C. HPCB

D. ICBM

8) During the life of a disk, is it true that defragmentation of the file system can significantly improve performance?

A. True

B. False

9) Which of these is NOT known as one of the world's hard disk manufacturers?

A. Toshiba

B. Seagate

C. Kraft

D. Western Digital

4. Ask the aged

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: gerontologist, professionally, medicine, doctor, balance, financial, industry, planning, seminar, individuals

Exercise II

Make sure you know the following words and word combinations.

dead-end, turning point, futility, doom, grand purpose, to get in the way of, to conduct research, earnest, to be taken aback, inclination, all-consuming, compelling, futility, endorsement, to astonish, aware

Ask the aged

Who better to answer questions about the purpose of life than someone who has been living theirs for a long time?

Ten years ago, I reached a point in my career that felt either like a dead-end or a turning point – I wasn't sure which. By then, I had spent 25 years as a gerontologist, professionally occupied with everything to do with ageing. I conducted research using data sets and sophisticated statistical analyses. I developed and evaluated programmes to improve older people's lives. I taught courses and gave lectures on ageing. I never talked to old people. My research kept me at more than an arm's length from the living, breathing individuals who were its subject. At best,

hired interviewers spoke with my respondents. Elsewhere, I used even more distant secondary data sets. My ‘engagement’ with real people involved checking codes and running statistics. The living, breathing humans who reported life satisfaction or high levels of stress were equally distant from me. And so I suddenly felt an urge to go out into the world of people in the eighth decade of life and beyond, and listen to what they had to say. What I heard changed my whole approach to life. Perhaps it will do the same for you. (1)

In a seminar room on an Ivy League campus, I sat across from hopeful and earnest college seniors. In a few months, they would leave the campus. I had arranged the meeting to find out what these ‘emerging adults’ wanted to learn about work and careers from their elders. Sitting with these students on a bright spring morning, I anticipated that they would want to hear about success strategies, tips for getting ahead, and suggestions for landing a high-paying dream job. So I was taken aback by the first question. It came from Josh, a future money manager dressed in a jacket and tie. He asked: I’d like you to ask them about something that really worries me. Do I need a purpose in life? That’s what all the books say, but I guess I don’t have one. Is there something wrong with me? And how do I get a purpose if I need one? There was furious nodding from the other participants. Because these students were driven to excel, they had devoured books about career strategies and success, many of which emphasised purpose. They had heard motivational speakers exhort them to find a single life passion, without which they were sure to drift, rudderless, through a disappointing career. But as we talked, it became clear that it just *didn’t feel that way to them*. They might have an interest, an inclination for

something they would enjoy – but one all-consuming life goal eluded them. They feared that this lack of a unique and compelling purpose might doom them to a life of failure and futility. (2)

And yet, from the other end of life's voyage, our elders give us a very different view of a life purpose – and a tip for finding one. Basically, the oldest Americans tell you to *relax*. They say that you are likely to have a number of purposes, which will shift as you progress through life. Marjorie Wilcox, aged 87, brought this lesson home to me. Marjorie is tall, fit and active. Marjorie devoted her career to developing affordable housing, travelling to the worst parts of industrial cities throughout the US. With this passion to make things right in the world, I expected a strong endorsement of purpose as the first condition for a good life. In fact, I heard something different from Marjorie and many of the other elders: namely, that our focus should not be on *a* purpose, but on *purposes*. She reported that the 'purposes' in her life changed as her life situation, interests, and priorities shifted. She warned specifically against being railroaded in the direction of a single purpose: You will do several different things. Do not be on one train track because the train will change. Widen your mind. That's what you should have as your priorities as a young person. Make sure you keep flexible. Lead with your strengths, and they will get you where you want to go. (3)

The elders recommend that we re-shape the quest for a purpose, thinking instead of *looking for a general direction and pursuing it energetically and courageously*. Determining a direction in life is easier, more spontaneous, more flexible, and less laden with overtones of a mystical revelation that sets you on an immutable life path. Times change, circumstances change – indeed, change itself is the

norm rather than the exception. A grand purpose, in their view, is not only unnecessary – it can also get in the way of a fulfilling career. Instead, they have offered the idea of finding a ‘working model’ that guides you through each phase of life. (4)

But how should you go about finding a direction? How to settle on a purpose that fits your current life stage? One technique turns out to be immensely valuable – and yet most people ignore it. If you are searching for a direction or purpose, *interview your future self*. There are in fact a host of benefits to doing this. Experiments have shown that when people are made to think in detail about their future selves, they are more likely to make better financial planning decisions and make more ethical choices. But it’s hard to do. A good deal of social science research over the past decade has shown that most people feel disconnected from their future selves. It takes work to imagine oneself a decade or two from now – let alone a half-century or more. Researchers have gone so far as to invent software that ‘morphs’ the reflection of a young subject to age 70 or 80. But this is as far as time-travel technology seems to have got, so it’s sadly not possible to meet your real future self. (5)

Yet it’s astonishing how few people do the next best thing: *interview an older person who embodies the ‘self’ you would like to be*. This idea came to me from Barry Fine, who still manages a business at 89. In fact, he didn’t use the term ‘future self’. He used a word he’d learned growing up on New York’s Lower East Side. His advice was to ‘find a maven’. Like many Yiddish expressions, ‘maven’ defies a single definition. It’s derived from a Hebrew word meaning ‘one who knows’, or ‘one who understands’. Mavens are trusted experts, reliable sources

of wisdom. That's who we need to guide us, according to Barry: In whatever business I've been in, and I've been in about eight businesses – some successful, some not successful – the most important thing is to have is a maven. Somebody who can really guide you. Where I've done this, where I've had a wonderful maven, I've always been successful. Where I went by myself, on my own, I've always failed. When I haven't listened, I've lost a lot of money. Younger people may not be so aware of this. They don't really understand that there are so many aspects of business you don't get taught in school. They have to see long-term into the future. They need to think three years, six years, 20 years out. That is what the maven is for, steering them in the right direction, based on his or her experiences. (6)

In any period where you feel directionless, stuck with one foot in two different worlds, and hearing in the back of your mind the words 'Should I stay or should I go?' – find your future self. He or she should be old – and preferably *really* old. You don't want a 40-year-old if you are 20; you want someone in his or her 80s, 90s, or a centenarian if you can find one. You need your future self to have the truly long view, as well as the detachment that comes from a very long life. This person also needs to be as close as possible to your imagined future self. Debating a career in medicine? Find a doctor who loved what she did. Worried about whether you can balance your values with a career in the financial industry? Find an older person who struck that balance and made it to the end of life without regrets. Planning to work an undemanding day job so you have the energy to paint/write/act in your

spare time? Some very old people did just that (and can tell stories of bohemian life that will sound very familiar today). (7)

When I hit my crisis point 10 years ago, I couldn't decide what to do, so I sought out Henry. Standing just a little over five feet tall and equipped with two hearing aids, Henry might not have seemed an imposing figure. But he was one of the leading psychologists of his era, and he still came into the office every day to conduct research. Henry was cagey about his age, but I knew from talking with his wife that he had recently turned 93. I asked him if we could have lunch. While he ate a green salad and I a cheeseburger, I let it all come out. Could I embrace this kind of risk, moving from scientific articles in academic prose to take the step of writing a book? A non-academic book, at that? And if I didn't, would I regret it when I was his age? He stopped me with the single word 'Yes.' Yes, he said, I would regret it if I did not take this leap, just as he regretted opportunities in his life that he had let slip by. He assured me that at his age, I would be much more likely to regret something that I had *not* done than something I had. And so I stepped away from the computer, and went on a search for the practical wisdom of older people. Ten years, 2,000 interviews, and two books later, I was not disappointed. (8)

Sometimes things turn out to be *less* complicated than they seem. In preparation for my research, I ploughed through books that promised to help me find my life purpose in a short six or eight weeks; books that offered to show me my purpose in a set of steps or exercises; and more books that simply instructed me to find that purpose and *do it now!* Maybe, I realised, it can be much simpler than that. Why not begin

with an activity as old as the human race: asking the advice of the oldest people you know? Because older people have one thing that the rest of us do not: they have lived their lives. They have been where we haven't. Indeed, people who have experienced most of a long life are in an ideal position to assess what 'works' and what doesn't for finding a direction. It is impossible for a younger person to know about the entire course of life as deeply as an older person does. They bring new perspectives to our contemporary problems and choices. So find someone who mirrors your image of your future self, and ask about your direction – you won't regret it. (9)

Adapted from Aeon.

Exercise III.

Find paragraphs, dealing with the following: futility, disconnected, time-travel technology, long-term, steer, struck, undemanding, bohemian, race, perspectives

Exercise IV.

Fill in the gaps according to the text.

1. Marjorie devoted her career to developing affordable housing, travelling to the worst parts of industrial cities throughout the
2. itself is the norm rather than the exception.
3. A good deal of social science research over the past decade has shown that most people feelfrom their future selves.
4. It takes work to imagine oneself a decade or two from now – let alone aor more.

5. Researchers have gone so far as to invent software that ‘morphs’ the reflection of a young subject to age.....
6. But this is as far asseems to have got, so it’s sadly not possible to meet your real future self.
7. Like many expressions, ‘maven’ defies a single definition.
8.are trusted experts, reliable sources of wisdom.
9. You don’t want a 40-year-old if you are ; you want someone in his or her 80s, 90s, or a centenarian if you can find one.
10. Henry was cagey about his age, but I knew from talking with his wife that he had recently turned.....

Exercise V.

Make up sentences of your own with the following word combinations:
dead-end (1), turning point (1), doom(2), to be taken aback by (2), get in the way of (4), fulfill career(4), settle on (5), to see long-term into the future (6), be so aware of (6), to conduct research (8)

Exercise VI.

Determine whether the statements are true or false. Correct the false statements:

1. Marjorie devoted her career to developing affordable housing, travelling to the worst parts of industrial cities throughout the UK.
2. Change itself is the exception rather than the norm.

3. Experiments have shown that when people are made to think in detail about their future selves, they are more likely to make better financial planning decisions and make more ethical choices.
4. Researchers have gone so far as to invent software that ‘morphs’ the reflection of a young subject to age 90 or 100.
5. Like many Yiddish expressions, ‘maven’ defies a single definition. It’s derived from a Hebrew word meaning ‘one who knows’, or ‘one who understands’.
6. You don’t want a 40-year-old if you are 20; you want someone in his or her 80s, 90s, or a centenarian if you can find one.
7. Henry was cagey about his age, but I knew from talking with his wife that he had recently turned 90.
8. Sometimes things turn out to be *more* complicated than they seem.
9. It is possible for a younger person to know about the entire course of life as deeply as an older person does.

Exercise VII.

Match the words to the definitions in the column on the right:

disconnected	to take someone or something or make someone or something go in the direction in which you want him, her, or it
fulfilling	taking almost all of your attention and time
steer	pointlessness or uselessness

failure	without being deterred by danger or pain; bravely
immutable	cause to have an unfortunate and inescapable outcome
elude	lacking contact
all-consuming	making someone satisfied or happy through allowing their character or abilities to develop fully
courageously	lack of success
doom	unchanging over time or unable to be changed
futility	escape from or avoid (a danger, enemy, or pursuer), typically in a skilful or cunning way

Exercise VIII.

Summarize the article “Ask the aged.”

Part 2

Exercise I.

Identify the part of speech the words belong to.

failure, immutable, unnecessary, disconnected, directionless, bohemian, entire, assess, complicated, preparation

Exercise II.

Form adjectives from the following words:

courageously (4), value (7), industry(7), conduct(8), decide(8), recently (8), risk (8), help (9), assess (9), activity (9)

Exercise III.

Find synonyms to the following words. Translate them into Russian:
futility (2), failure (2), elude(2), courageously (4), immutable (4), unnecessary (4), fulfilling (4), grand(4), benefit (5), disconnected (5)

Exercise IV.

Find antonyms to the following words. Translate them into Russian:
failure (2), futility (2), elude (2), immutable (4), unnecessary (4), fulfilling (4), grand (4), benefit (5), imposing (8), regret (9)

Exercise V.

Match the words to make word combinations:

human	course
imposing	job
dead	purpose
time-travel	aids
life	race
turning	end
dream	technology
grand	path
hearing	point
entire	figure

Exercise VI.

QUIZ (Computer History)

There are lots of PC experts out there today. Not too many of them have knowledge that extends back to the early days of the PC. How good are you at early PC history?

1) The original IBM PC had two identical connectors (in addition to others) on the back panel. One was the keyboard connector. What was the other one?

A. Audio Output

B. Monochrome Video

C. Mouse

D. Cassette Tape IO

2) IBM DOS 1.0 had two utilities that later integrated directly into the functionality of DOS. What were they?

A. MD.COM and RD.COM

B. REN.COM and DEL.COM

C. REN.COM and COPY.COM

D. DATE.COM and TIME.COM

3) DOS 2.0 introduced an important concept to PCs. What was it?

A. Internet

B. Windows

C. Mouse

D. Subdirectories

4) How many slots were in the original IBM PC?

A. 6

B. 8

C. 5

D. 7

5) The next generation after the PC and XT was the IBM PC-AT. This computer sported an 80286 processor, 20 meg hard disk (later increased to 30 megs), High density 5.25' floppy drives, and an expanded system bus (16 bit cards!). What was the clock speed of the original configuration of this system?

A. 6 MHZ

B. 33 MHZ

C. 8 MHZ

D. 16 MHZ

6) Why would one change the interleave on their hard drive?

A. To increase capacity

B. To run Windows NT

C. To partition into multiple drive letters

D. To increase speed

7) What was the command used to start the text editor included in DOS

1.x and 2.x?

A. EDIT

B. EDLIN

C. NOTEPAD

D. WORDPAD

8) Which is NOT a graphics card standard from the IBM personal computer line?

A. CGA

B. PGA

C. AGP

D. EGA

9) What was the name of the first laptop from IBM?

A. PC-Portable

B. PC-SX

C. Lapbook

D. Convertible

Supplementary reading

Millennials: The Me Me Me Generation

They want constant approval-they post photos from the dressing room as they try on clothes. They have massive fear of missing out. They're celebrity obsessed but don't respectfully idolize celebrities from a distance. They're not into going to church, even though they believe in God, because they don't identify with big institution. They want new experiences, which are more important to them than material goods. They're financially responsible; although student loans have hit record highs, they have less household and credit-card debt than any previous generation on record - which, admittedly, isn't that hard when you're living at home and using your parents' credit card. I am about to do what old people have done throughout history: call those younger than me lazy, entitled, selfish and shallow. But I have studies! I have statistics! I have quotes from respected academics! Unlike my parents, my grandparents and my great-grandparents, I have proof. Millennials are so convinced of their own greatness that the National Study of Youth and Religion found the guiding morality of 60% of millennials in any situation is that they'll just be able to feel what's right. Their development is stunted: more people ages 18 to 29 live with their parents than with a spouse. And they are lazy. Millennials consist, depending on whom you ask, of people born from 1980 to 2000. Each country's millennials are different, but because of globalization, social

media, the exporting of Western culture and the speed of change, millennials worldwide are more similar to one another than to older generations within their nations. Even in China, where family history is more important than any individual, the Internet, urbanization and the one-child policy have created a generation as overconfident and self-involved as the Western one. Whereas in the 1950s families displayed a wedding photo, a school photo and maybe a military photo in their homes, the average middle-class family today walks amid 85 pictures of themselves and their pets. And these aren't just rich-kid problems: poor millennials have even higher rates of narcissism, materialism and technology addiction in their ghetto-fabulous lives. They got this way partly because, in the 1970s, people wanted to improve kids' chances of success by instilling self-esteem. It turns out that self-esteem is great for getting a job or hooking up at a bar but not so great for keeping a job or a relationship. The early findings showed that, indeed, kids with high self-esteem did better in school and were less likely to be in various kinds of trouble. It's just that we've learned later that self-esteem is a result, not a cause. The problem is that when people try to boost self-esteem, they accidentally boost narcissism instead. "Just tell your kids you love them. It's a better message," says Jean Twenge, a psychology professor. When they're little it seems cute to tell them they're special or a princess or a rock star or whatever their T-shirt says. But all that self-esteem leads them to be disappointed when the world refuses to affirm how great they know they are. This generation has the highest likelihood of having unmet expectations with respect to their careers and the lowest levels of satisfaction with their careers at the stage that they're at. It is

sort of a crisis of unmet expectations. What millennials are most famous for besides narcissism is its effect: entitlement. These young employees e-mail the CEO directly and beg off projects they find boring. Though they're cocky about their place in the world, millennials are also stunted, having prolonged a life stage between teenager and adult. The idea of the teenager started in the 1920s; in 1910, only a tiny percentage of kids went to high school, so most people's social interactions were with adults in their family or in the workplace. Now that cell phones allow kids to socialize at every hour - they send and receive an average of 88 texts a day - they're living under the constant influence of their friends. Peer pressure is anti-intellectual. Never before in history have people been able to grow up and reach age 23 so dominated by peers. To develop intellectually you've got to relate to older people, older things: 17-year-olds never grow up if they're just hanging around other 17-year-olds.

Millennials are interacting all day but almost entirely through a screen. You've seen them at bars, sitting next to one another and texting. They might look calm, but they're deeply anxious about missing out on something better. Seventy percent of them check their phones every hour, and many experience phantom pocket-vibration syndrome. That constant search for a hit of dopamine ("Someone liked my status update!") reduces creativity. Scores on tests of empathy similarly fell sharply, starting in 2000, likely because of both a lack of face-to-face time and higher degrees of narcissism. Not only do millennials lack the kind of empathy that allows them to feel concerned for others, but they also have trouble even intellectually understanding others' points of view. What they do understand is how to turn themselves into brands,

with "friend" and "follower" tallies that serve as sales figures. When everyone is telling you about their vacations and parties, you start to embellish your own life to keep up. If you do this well enough on Instagram, YouTube and Twitter, you can become a microcelebrity. Millennials grew up watching reality-TV shows, most of which are basically documentaries about narcissists. Now they have trained themselves to be reality-TV-ready. Most people never define who they are as a personality type until their 30s. So for people to be defining who they are at the age of 14 is almost a huge evolutionary jump.

But millennials are not a new species; they've just mutated to adapt to their environment. For example, millennials' entitlement is a result of an adaptation to a world of abundance. They put off life choices because they can choose from a huge array of career options, some of which, like jobs in social media, didn't exist 10 years ago. What idiot would try to work her way up at a company when she's going to have an average of seven jobs before age 26? Because of online dating, Facebook circles and the ability to connect with people internationally, they no longer have to marry someone from their high school class or even their home country. Because life expectancy is increasing so rapidly and technology allows women to get pregnant in their 40s, they're more free to postpone big decisions. And while all that choice might end in disappointment, it's a lottery worth playing. In fact, a lot of what counts as typical millennial behavior is how rich kids have always behaved. The Internet has democratized opportunity for many young people, giving them access and information that once belonged mostly to the wealthy. Previously if you wanted to be a writer but didn't know anyone who is in publishing, it was just, Well, I won't write. But now it's, Wait, I know someone who

knows someone. I hear story after story of people high up in an organization saying, 'Well, this person just e-mailed me and asked me for an hour of my time, and for whatever reason I gave it to them.' So the great thing is that they do feel entitled to all of this, so they'll be more more willing to try new things. Millennials are more accepting of differences, there are many subcultures, and you can dip into them and search around.

While we don't know much about Gen Z yet...we know a lot about the environment they are growing up in. Gen Z kids will grow up with a highly sophisticated media and computer environment and will be more Internet savvy and expert than their Gen Y forerunners. ***How Generation Z Differs from Millennials.*** 1. *Less Focused.* Gen Z lives in a world of continuous updates. Gen Z processes information faster than other generations. 2. *Better Multi-Taskers.* Gen Z can quickly and efficiently shift between work and play, with multiple distractions going on in the background, working on multiple tasks at once. Just think about how this kind of flow might reshape the office. 3. *Gen Z is Full of Early Starters.* Many employers are predicting that more teens, between the ages of 16 and 18 will go straight into the workforce, opting out of the traditional route of higher education, and instead finishing school online, if at all. Would you make a major investment, possibly leading to years of debt to come — knowing there are new, more affordable (not to mention more convenient) online alternatives coming up every day? Gen Z knows the true value of independence, and knowledge is no exception here. If a Gen Z'er knows they are capable of learning something themselves, or through a more efficient, non-traditional route, you can bet they'll take the opportunity. Generation Z desires more independent

work environments. As a matter of fact, 72% of teens say they want to start a business someday. 4. *Gen Z Has Higher Expectations Than Millennials.* Generation Z was born into a world overrun with technology. When it doesn't get there that fast they think something's wrong. If they don't feel appreciated, they're going to move on. It's not about them being loyal to the business. 5. *Gen Z Is Big On Individuality.* Gen Z'ers were born social and seek uniqueness in all walks of life. But Generation Z will become more global in their thinking and interactions. 58% of adults worldwide ages 35+ agree that "kids today have more in common with their global peers than they do with adults in their own country." This generation grew up with technology, and for them, it's probably hard to go without their devices.

Generation Z is ambitious and hardworking. Compared to the millennial generation, Gen Z is more competitive and independent. Millennials were raised to believe in collaboration. However, the view that everyone wins if everyone works together isn't necessarily realistic.

Generation Z babies are digital natives. Employees who belong to Generation Z have never known life without the internet or social media, and they are comfortable with rapidly changing technology. This generation has only known a world where their phones are smart. They are quick to streamline processes, and they have less hesitation or fear to try something new. At the same time, this generation can act too quickly.

Generation Z is looking for alternatives. It is the do-it-yourself generation, partly because the internet provides unprecedented opportunities for self-education. 75% of Gen Zs believe that there are other ways of getting a good education than by going to college.

Today's youngest generation (born after 2000) are connected yet isolated, savvy but anxious, indulged yet stressed. The single biggest difference between Generation Z and other generations is how connected they are, and have been since birth. Connectivity permeates their lives – from friendships to relationships, news, entertainment, shopping – and has transformed how they interact. How happy is Generation Z? A World Health Organisation survey carried out in 42 countries, found that young men and women in the UK are among the least satisfied with their lives, particularly 15-year-olds in England and Wales. One of the starkest markers of Gen Z to date is the sharp rise in reported mental health issues. Young men and women in the UK are seeking treatment for low self-esteem, anxiety and depression, in greater proportions than any other generation on record. (Some of this may be because these conditions were not widely diagnosed or understood in the past.) When it comes to low self-esteem, a lot of young people are putting that down to concerns about education, their future and the online world. Particularly the online world, it's with them 24/7. Every time they switch on their phones they're getting messages about parties they haven't been invited to, or they're seeing photos of their friends doing things, or their whole self-worth is based on how many likes they're getting on Facebook.

Betsy de Thierry is a child and adolescent psychotherapist. She says the levels of stress among the children she works with is unprecedented. "The pressure on young people these days is absolutely extraordinary – it has never been the same before. They're living with lots of stress – their parents desperately wanting them to do well because of financial pressures. She points to a shift of focus in schools, towards

“hard” subjects and away from arts and sport, as one cause of increased pressure on young people. “I would argue that the biggest damage has been done in the reduction of creative arts, sports, music and free time. We know from neuroscience that young people are dependent on having time to play – that’s how their brains develop, how they make sense of the world and how they become healthy young people.”

The feelings of social isolation reported by many teenagers can be hard for older people to understand. There’s a perception that this generation should be the happiest, because they’ve got so much connectivity, across the world, and so much information at their fingertips. But that connectivity is actually disconnecting people from real friendships and the opportunity to enjoy the world together. It’s creating absolutely unrealistic ideals that young people can’t get to. De Thierry believes the solution is more real-life contact and interaction. “We know that social isolation can have lifelong consequences on the brain and relationships and teenagers’ ability to make sense of the world. Depression and anxiety are already on the rise and being normalised. When children have childhoods, and young people are allowed to be creative and spend time with each other, then they shouldn’t be depressed or anxious.” Without intervention, De Thierry anticipates an increase in adult mental health issues, unemployment and burnout. “People think they’ve got 1,000 friends but in actual fact, who really knows them? It’s probably nobody these days – not their parents, as they don’t eat together and are working longer hours. And not their siblings, possibly because they’re sitting in separate rooms on phones and they text each other.” The contradictions of connectivity are the real challenge for Generation Z and for society at large. In many ways, they

already appear more responsible than their predecessors – more politically engaged and eager to reframe our perspectives on gender, while demanding action on the issues of mental health, education, equality and racism. As they emerge into adulthood, we will see what world they make.

САРАТОВСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ ИМЕНИ Н. Г. ЧЕРНЫШЕВСКОГО