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Being Human in the Age of Algorithms:

part 2

Учебное пособие

Саратов

2018

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Being Human in the Age of Algorithms: part 2: Учебное пособие по иностранному языку для студентов неязыкового вуза /Сост. А.И. Матяшевская, Е.В. Тиден. — Саратов, 2018. — 70 с.

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PREFACE

Настоящее учебное пособие включает актуальные тексты (2017-2018гг.) учебно-познавательной тематики для студентов механико-математического факультета (направления 02.03.01 «Математика и компьютерные науки», 01.03.02 «Прикладная математика и информатика», 38.03.05 «Бизнес-информатика»).

Целью данного пособия является формирование навыка чтения и перевода научно-популярных текстов, а также развитие устной речи студентов (умение выразить свою точку зрения, дать оценку обсуждаемой проблеме).

Пособие состоит из 5 разделов, рассматривающих значение информационных технологий в современном мире. Каждый из них содержит аутентичные материалы (источники: *Aeon, The Medium, Nautilus, Real Life Magazine*) 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. What Boredom Does to You

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: emotion, evolutionary, psychologist, negative, function, instinctively, experiment, copying, classic, test

Exercise II.

Make sure you know the following words and word combinations:

Downtime, quotient, brain-imaging, crux, contemplation, contentious, chime, veer, tiff, to berate

What Boredom Does to You

The science of the wandering mind.

Every emotion has a purpose—an evolutionary benefit," says Sandi Mann, a psychologist and the author of The Upside of Downtime: Why Boredom Is Good. "I wanted to know why we have this emotion of boredom, which seems like such a negative, pointless emotion." That's how Mann got started in her specialty: boredom. While researching emotions in the workplace in the 1990s, she discovered the second most commonly suppressed emotion after anger was—you guessed it— boredom. "It gets such bad press," she said. "Almost everything seems to be blamed on boredom." As Mann dived into the topic of boredom, she found that it's certainly not pointless. Wijnand van Tilburg from the University of Southampton explained the important evolutionary

function of that awful feeling this way: "Boredom makes people keen to engage in activities that they find more meaningful than those at hand." "Imagine a world where we didn't get bored," Mann said. "We'd be perpetually excited by everything—raindrops falling, the cornflakes at breakfast time." Once past boredom's evolutionary purpose, Mann became curious about whether there might be benefits beyond its contribution to survival. "Instinctively," she said, "I felt that we all need a little boredom in our lives." Mann devised an experiment wherein a group of participants was given the most boring assignment she could think of: copying, by hand, phone numbers from the phone book. (For some of you who might never have seen one of those, Google it.) This was based on a classic creativity test developed in 1967 by J.P. Guilford, an American psychologist and one of the first researchers to study creativity. Guilford's original Alternative Uses Test gave subjects two minutes to come up with as many uses as they could think of for everyday objects such as cups or a chair. In Mann's version, she preceded the creativity test with 20 minutes of a meaningless task: in this case, copying numbers out of the phone book. Afterward, her subjects were asked to come up with as many uses as they could for two paper cups. The participants devised mildly original ideas for their cups, such as plant pots and sandbox toys. In the next experiment, Mann ratcheted up the boring quotient. Instead of copying numbers out of the phone book for 20 minutes, this time they had to read the phone numbers out loud. Although a handful of people actually enjoyed this task and were excused from the study, the vast majority of participants found reading the phone book absolutely boring. It's more difficult to

space out when engaged in an active task such as writing than when doing something as passive as reading. The result, as Mann had hypothesized, was even more creative ideas for the paper cups, including earrings, telephones, all kinds of musical instruments. This group thought beyond the cup-as-container. By means of these experiments, Mann proved her point: People who are bored think more creatively than those who aren't. (1)

But what exactly happens when you get bored that ignites your imagination? "When we're bored, we're searching for something to stimulate us that we can't find in our immediate surroundings," Mann explained. "So we might try to find that stimulation by our minds wandering and going to someplace in our heads. That is what can stimulate creativity, because once you start daydreaming and allow your mind to wander, you start thinking beyond the conscious and into the subconscious. This process allows different connections to take place. It's really awesome." Boredom is the gateway to mind-wandering, which helps our brains create those new connections that can solve anything from planning dinner to a breakthrough in combating global warming. Researchers have only recently begun to understand the phenomenon of mind-wandering, the activity our brains engage in when we're doing something boring, or doing nothing at all. Most of the studies on the neuroscience of daydreaming have only been done within the past 10 years. With modern brain-imaging technology, discoveries are emerging every day about what our brains are doing not only when we are deeply engaged in an activity but also when we space out. When we're consciously doing things—even writing down numbers in a phone

book—we're using the "executive attention network," the parts of the brain that control and inhibit our attention. As neuroscientist Marcus Raichle put it, "The attention network makes it possible for us to relate directly to the world around us, here and now." By contrast, when our minds wander, we activate a part of our brain called the "default mode network," which was discovered by Raichle. The default mode, a term also coined by Raichle, is used to describe the brain "at rest"; that is, when we're not focused on an external, goal-oriented task. So, contrary to the popular view, when we space out, our minds aren't switched off. "Scientifically, daydreaming is an interesting phenomenon because it speaks to the capacity that people have to create thought in a pure way rather than thought happening when it's a response to events in the outside world," said Jonathan Smallwood, who has studied mind-wandering since the beginning of his career in neuroscience, 20 years ago. Smallwood explained why his discipline is still in its infancy. "It has an interesting place in the history of psychology and neuroscience simply because of the way cognitive science is organized," he said. "Most experimental paradigms and theories tend to involve us showing something to the brain or the mind and watching what happens." For most of the past, this task-driven method has been used to figure out how the brain functions, and it has produced a tremendous amount of knowledge regarding how we adapt to external stimuli. "Mind-wandering is special because it doesn't fit into that phenomenon," Smallwood said. We're at a pivotal point in the history of neuroscience, according to Smallwood, because, with the advent of brain imaging and other comprehensive tools for figuring out what's going on in there, we

are beginning to understand functioning that has until now escaped study. The crucial nature of daydreaming became obvious to Smallwood almost as soon as he began to study it. Spacing out is so important to us as a species that "it could be at the crux of what makes humans different from less complicated animals." It is involved in a wide variety of skills, from creativity to projecting into the future. There is still so much to discover in the field, but what's definitely clear is that the default mode is not a state where the brain is inactive. Smallwood uses functional magnetic resonance imaging (fMRI) to explore what neural changes occur when test subjects lie in a scanner and do nothing but stare at a fixed image. It turns out that in the default mode, we're still tapping about 95 percent of the energy we use when our brains are engaged in hardcore, focused thinking. Despite being in an inattentive state, our brains are still doing a remarkable amount of work. While people were lying in scanners in Smallwood's experiment, their brains continued to "exhibit very organized spontaneous activity." "We don't really understand why it's doing it," he said. "When you're given nothing to do, your thoughts don't stop. You continue to generate thought even when there's nothing for you to do withthe thoughts." Part of what Smallwood and his team are working on is trying to connect this state of unconstrained self-generated thought and that of organized, spontaneous brain activity, because they see the two states as "different sides of the same coin." When we lose focus on the outside world and drift inward, we're not shutting down. We're imagining future possibilities, dissecting our interactions with other people, and reflecting on who we are. It feels like we are wasting time when we wait for the longest red light in the

world to turn green, but the brain is putting ideas and events into perspective. This gets to the heart of why mind-wandering or daydreaming is different from other forms of cognition. Rather than experiencing, organizing, and understanding things based on how they come to us from the outside world, we do it from within our own cognitive system. That allows for reflection and the ability for greater understanding after the heat of the moment. Smallwood gives the example of an argument: While it's happening, it's hard to be objective or see things from the perspective of the other person. Anger and adrenaline, as well as the physical and emotional presence of another human being, get in the way of contemplation. But when your brain relives the argument, your thoughts become more nuanced. You not only think of a million things you should have said, but, perhaps, without the "stimulus that is the person you were arguing with," you might get another perspective and gain insights. Thinking in a different way about a personal interaction, rather than the way you did when you encountered it in the real world, is a profound form of creativity spurred on by mind-wandering. "Daydreaming is especially crucial for a species like ours, where social interactions are important," Smallwood said. "That's because in day-to-day life, the most unpredictable things you encounter are other people." If you break it down, most of our world, from traffic lights to grocery store checkouts, is actually governed by very simple sets of rules. People—not so much. "Daydreaming reflects the need to make sense of complicated aspects of life, which is almost always other human beings." (2)

Talking to Professor Smallwood had me more convinced than ever that it's destructive to fill all the cracks in our day with checking e-mail,

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updating Twitter, or incessantly patting our pockets or bag to check for a vibrating phone. I saw why letting one's mind wander really is the key to creativity and productivity. "Well, that's a contentious statement," Smallwood said. "I mean, people whose minds wander all the time wouldn't get anything done." Fair point. I didn't like that Smallwood was trying to slow me down, but, true enough, daydreaming hasn't always been considered a good thing. As late as the 1960s, teachers were warned that daydreaming students were at risk for mental health issues. There are obviously different ways to daydream or mind-wander—and not all of them are productive or positive. In the book The Inner World of Daydreaming, psychologist Jerome L. Singer, who has been studying mind-wandering for more than 50 years, identifies three different styles of daydreaming: poor attention control, guilty-dysphoric, positive-constructive. And, yes, they are just what they sound like. People with poor attention control are anxious, easily distracted, and have difficulty concentrating, even on their daydreams. When our mind-wandering is dysphoric, our thoughts drift to unproductive and negative places. We berate ourselves for having forgotten an important birthday or obsess over failing to come up with a clever retort when we needed one. We're flooded with emotions like guilt, anxiety, and anger. For some of us, it's easy to get trapped in this cycle of negative thinking. Not surprisingly, when dysphoric mind-wandering becomes chronic, it can lead people into destructive behaviors like compulsive gambling, addiction, and eating disorders. The question, however, is whether mind-wandering is not only more frequent in people who report chronic levels of unhappiness, but whether it also promotes unhappiness. In a study called

"A Wandering Mind Is an Unhappy Mind", Harvard psychologists Matthew Killingsworth and Daniel Gilbert developed an iPhone app to survey the thoughts, feelings, and actions of 5,000 people at any given time throughout a day. (When a chime went off randomly on the participant's smart-phone, up popped a series of questions that touched on what the person was doing, if he was thinking about what he was doing, and how happy he was, among other things.) From the results of the survey, Killingsworth and Gilbert found that "people are thinking about what is not happening almost as often as they are thinking about what is" and "doing so typically makes them unhappy." It's just like what you hear in every yoga class—the key to happiness is being in the moment. So what's the deal? Is mind-wandering productive or self-defeating? Well, it seems that, like everything else in life, daydreaming is complicated. (3)

Smallwood coauthored a study on the relationship between mood and mind-wandering that found "the generation of thoughts unrelated to the current environment may be both a cause and a consequence of unhappiness." What!? Another study argues that not all kinds of self-generated thought or mind-wandering are alike. The data collected from approximately 100 participants took into account whether their thoughts were task related, focused on the past or future, about themselves or others, and positive or negative. What this study found was that, yes, negative thoughts brought about negative moods. Self-generated thought in depressed people tended to cause and be caused by negative moods, and "past-related thought may be especially likely to be associated with low mood." But all hope is not lost. The study also found that "by contrast, future- and self-related thoughts preceded improvements of

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mood, even when current thought content was negative." "Daydreaming has aspects that will allow us to think originally about our lives," Smallwood told me. "But in certain circumstances, continuing to think about something might not be the right thing to do. Many states of chronic unhappiness are probably linked to daydreaming simply because there are unsolvable problems." Mind-wandering is not unlike our smartphones, where you can easily have too much of a good thing. Smallwood argues that we shouldn't think about the technology of our phones—or our brains—in terms of the value judgments "good" or "bad." Rather it comes down to how we put them to use. "Smartphones allow us to do all kinds of amazing things like contact people from great distances, but we can get trapped in devoting our entire life to them," he said. "That's not the smartphone's fault." Daydreaming gets us to think about things in a different way, for good, bad, or, well, just different. The flip side of dysphoric daydreaming, the positive-constructive kind, is when our thoughts veer toward the imaginative. We get excited about the possibilities that our brain can conjure up seemingly out of nowhere, like magic. This mode of mind-wandering reflects our internal drive to explore ideas and feelings, make plans, and problem-solve. So how can we engage in healthy mind-wandering? Let's say you had a tiff with your coworker. That night, while making a salad, you find yourself replaying the scene over and over in your mind; waves of anger wash over you yet again as you berate yourself for not having come up with a wittier retort to his comment implying you hadn't pulled your weight during a recent project. But with positive-constructive mind-wandering, you'd get over the past and come up with a way to show him all the

legwork these projects require of you ... or maybe you resolve to be put on another team altogether and avoid him entirely because life's too short. "It's easier said than done to change your thinking," Smallwood said. "Daydreaming is different from many other forms of distraction in that when your thoughts wander to topics, they're telling you something about where your life is and how you feel about where it is. The problem with that is sometimes when people's lives aren't going so well, daydreaming might feel more difficult than it would be at times when their lives are going great. Either way, the point is that it does provide insight into who we are." At first glance, boredom and brilliance are completely at odds with each other. Boredom, if defined just as the state of being weary and restless through lack of interest, overwhelmingly has negative connotations and should be avoided at all costs, whereas brilliance is something we aspire to—a quality of striking success and unusual mental ability. Genius, intellect, talent versus dullness, doldrums. It's not immediately apparent, but these two opposing states are in fact intimately connected. Andreas Elpidorou, a researcher in the Department of Philosophy at the University of Louisville and self-described defender of boredom, explains, "Boredom motivates the pursuit of a new goal when the current goal ceases to be satisfactory, attractive, or meaningful to you." In his academic article "The Bright Side of Boredom," Elpidorou argues that boredom "in the absence of boredom, one would miss out on many emotionally, cognitively, and socially rewarding experiences. Boredom is both a warning that we are not doing what we want to be doing and a 'push' that motivates us to switch goals and projects." You could say that boredom is an incubator

lab for brilliance. It's the messy, uncomfortable, confusing, frustrating place one has to occupy for a while before finally coming up with the winning equation or formula. Steve Jobs, who changed the world with his popular vision of technology, famously said, "I'm a big believer in boredom. ... All the technology stuff is wonderful, but having nothing to do can be wonderful, too." Let your knowledge of the science and history behind boredom inspire you to bring it back into your life. You might feel uncomfortable, annoyed, or even angry at first, but who knows what you can accomplish once you get through the first phases of boredom and start triggering some of its amazing side effects? (4)

Adapted from The Medium.

Exercise III.

Find paragraphs, dealing with the following: benefit, suppressed, raindrops, creativity, chair, meaningless, mildly, sandbox, ratcheted, handful

Exercise IV.

Fill in the gaps.

1. New limits would be established and …................ increased where current rules apply.

2. Marriage, motherhood, and family life, she says, are the …................ female dream.

3. The ratio follows the classic definition of Euclid and expressed as a …....................

4. Chris prefers straight angles and counts the roof shingles to …........................... the lights.

5. So, again, we need to be careful to avoid policies that …..................... economic growth.

6. The right or wrong man in a …................. position can affect the destiny of millions.

7. The website gives …..................... information on the visa fees for Vietnam.

8. Nuclear power has been politically .... in the United States for decades.

9. It may have as …................. an impact on the world as the coming of the factory did.

10. Since foods already contain vitamins, the pills may be............................

Exercise V.

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

to space out, too much of a good thing, to conjure up, by hand, to copy numbers out of, to get bored, to think beyond the conscious, be deeply engaged in, by contrast, at rest

Exercise VI.

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

creativity	a test done in order to learn something or to discover if something works or is true
neuroscience	the ability to produce original and unusual ideas, or to make something new or imaginative
experiment	a strong feeling such as love or anger, or strong feelings in general
boredom	of crucial importance in relation to the development or success of something else

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profound	of or relating to understanding
perpetual	the state of being bored
comprehensive	to prevent someone from doing something by making them feel nervous or embarrassed
pivotal	the scientific study of the nervous system and the brain
to inhibit	felt or experienced strongly; extreme
emotion	never ending or changing

Exercise VII.

Summarize the article "What Boredom Does to You"

Part 2

Exercise I.

Identify the part of speech the words belong to.

pointless, meaningful, creativity, mildly, stimulation, connection, discovery, external, popular, capacity

Exercise II .

Form nouns from the following words:

pointless (1), discovered (1), explained(1), important (1), engage (1), meaningful (1), excited (1), curious (1), original (1), boring (1)

Exercise III.

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

perpetual (1), passive (1), creative (1), instruments (1), experiments (1), stimulate (1), immediate (1), surrounding (1), awesome (1), annoyed (4)

Exercise IV.

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

difficult (1), active (1), exactly (1), boredom (1), start (4), angry (4), wonderful (4), famous (4), motivate (4), messy (4)

Exercise V.

Match the words to make word combinations:

global	technology
brain-imaging	mode
musical	cups
default	warming
sandbox	time
paper	instruments
plant	number
breakfast	surroundings
phone	toys
immediate	pots

2. Is Facebook Luring You Into Being Depressed?

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: league, footballers, organize, platform, professor, information, systems, intrigued, paradigm, positive

Exercise II.

Make sure you know the following words and word combinations:

To lure, to loom, to blast, buckshot, bandwidth, to linger, malaise, withdrawal, omnipresent, to bolster

Is Facebook Luring You Into Being Depressed?
Social media encourages us to follow those we envy

In his free time, Sven Laumer serves as a referee for Bavaria's highest amateur football league. A few years ago, he noticed several footballers had quit Facebook, making it hard to organize events on the platform. He was annoyed, but as a professor who studies information systems, he was also intrigued. Why would the young men want to give up Facebook? Social scientists had been saying the social network was a good thing. "At the time, the main paradigm in social networking research was that Facebook is a positive place, it's a place of happiness, it's a place where you have fun, you get entertained, you talk to friends, you feel amused, accepted," says Hanna Krasnova, an information systems researcher at the University of Bern in Switzerland. Influential

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studies had shown that the social capital we earn on social media can be key to our successes, big and small. Our virtual connections were known to help us access jobs, information, emotional support, and everyday favors. "Everyone was enthusiastic about social media," Laumer says. Laumer suspected that quitting Facebook was a classic response to stress. He knew other researchers had looked at something called "technostress," which crops up in workplaces due to buggy interfaces. But that didn't really fit with Facebook, which is easy to use. Something else seemed to be stressing people out. "We thought there was a new phenomenon on social media in particular," Laumer says. Through interviews and laboratory experiments, researchers have begun to shift the paradigm, revealing that Facebook, Twitter, Instagram and their ilk are places not only of fun and success, but of dark, confronting human emotions—less Magic Kingdom and more creepy fun house. In many ways, researchers say, these platforms are giant experiments on one of our species' most essential characteristics: our social nature. So it shouldn't be a surprise there are unintended consequences. "No one constructed something to make people feel bad or good," says Ethan Kross, a social psychologist at the University of Michigan. "But, what we're looking at is, how does it actually play out and impact people in daily life?" (1)

One consequence may be that using Facebook can lead you to feel a little bit sadder—a phenomenon popularly known as "Facebook depression." In their study of Facebook, Kross and his colleagues text messaged 82 people—mostly undergraduates—five times a day to ask how much they had used Facebook and how they felt. "What we found

was that, the more people reported using Facebook during one moment in time, the more their self-reported mood declined from the beginning of that period to the end," Kross says. Why? Laumer and his colleagues noticed that, for some of the participants, Facebook's News Feed didn't feel entertaining; it loomed like a long list of demands. *Cheer me up. Comfort me. Wish me a happy birthday. Like this new profile picture.* Social networking sites blast users with requests in ways never before possible. Requests don't go out one-to-one; they go out like buckshot, one-to-many. No wonder people get stressed by them. Stress is what arises when people feel that they don't have the resources or ability to cope with some perceived threat—in this case, the threat of what Laumer calls "social overload." Ironically, social overload is the flip side of what other researchers have found to be one of the most positive aspects of social media: social sharing. Sharing one's problems with others online can reduce stress associated with everything from everyday pressures to life transitions, says sociologist Shelia Cotten of Michigan State University, who, in one study, found that Internet use can decrease loneliness in older Americans. "There's a whole lot of social support that gets exchanged that can have very beneficial aspects to your health and well-being and can help to alleviate stress." The problem is, as you're alleviating your stress, you're putting it onto others. Sociologist Keith Hampton calls this second-hand stress "the cost of caring." It should be no surprise, he says, that women tend to pay this price more than men, since they carry much of the burden of care for family and friends both online and off. "When you're aware of bad things happening to people you know, not only does it bring stress to your life,

but it also allows you to provide them with social support and empathy," he says. (2)

But not all friends are created equal online. On social media, we can keep adding contacts ad infinitum—including people we rarely or never see in real life. "For the first time in modern history, ties are persistent in a way they haven't been before," Hampton says. Laumer and his colleagues found social overload is more likely to strike people who have more Facebook-only friends. That makes sense. In the 1990s, anthropologist Robin Dunbar proposed that human beings have the time and bandwidth to sustain 100 to 200 friendships at a time. In a recent study involving 1.7 million users, Dunbar and his colleagues found that Twitter users maintained "stable social relations" with about that same number on average. But if we have about 150 friends we regularly contact and think about on Facebook or Twitter, and they all regularly put out social support requests, then we're already juggling more demands than our ancestors ever would have. Where do we fit in our real friends? Many overwhelmed users consider just quitting wholesale. "Social overload has a strong effect on exhaustion," Laumer says. On top of that, studies have confirmed what's plain to every user: Friends tend to post the things that make them look good. Truth be told, even if people aren't cropping out the sadness, and instead posting dull or disparaging things about their daily lives, we're unlikely to pay attention. Humans automatically linger on people of high status—especially people who look attractive or rich. Charlotte Blease, a scientist who studies depression, sees social status at the root of our social media malaise. In the paper called "Too Many 'Friends,' Too Few 'Likes'? Evolutionary Psychology and 'Facebook Depression,' " Blease,

a researcher at the University of Leeds and Harvard Medical School, turns to our ancestral environments for an explanation. One evolutionary explanation for depression, Blease tells us, is known as the "social competition theory." It holds that depression is an adaptive suite of behaviors—withdrawal and low self-esteem—that enabled our ancestors to retreat from antagonistic social encounters. In other words, get depressed, stay alive. "It acts as an involuntary response where you're almost just putting your hands in the air," Blease says. This adaptive behavior has stayed with us. In modern environments it can be triggered when we sense we're being outcompeted by those of high social status. "We're drawn to those kind of individuals, which then may perpetuate the feeling of, 'I'm a loser compared to these people,' " Blease says. Of course, social comparison could also turn us an ugly shade of green. Evolutionarily speaking, envy, like mild depression, is probably adaptive—it motivates us to learn from others and set higher goals. But envy is also painful, which makes it hard to study, says Krasnova. "It is a very tricky feeling, so we don't want to admit envy, usually—not to anybody that we feel envious of, and not even to ourselves," she says. "Sometimes the feeling could get so suppressed we don't know what we're feeling and why we're feeling so angry or so sad, or so irritated or stressed." When Krasnova and her colleagues asked 357 subjects how they felt after using Facebook most recently, only 1.2 percent of them said envious. So she rephrased the question: "Many users report feeling frustrated and exhausted after using Facebook. What do you think causes these feelings?" In this case, the most popular response was envy. Not only is envy a common feeling for people using Facebook; it's

"rampant," she says. Examples are omnipresent. Krasnova notes that one way people find temporary relief for the pain of envy is by bolstering their own self-presentation. That threatens to generate an "envy spiral" on social networks, she warns. "Users are exposed to positive content, they post even more positive things, then their recipients post even more positive things. And so on. And then this world of Facebook becomes more and more detached from reality." (3)

Instead of bringing us closer to our friends, this detached world can insert distance. Psychologist Sherry Turkle talks about the tension between "our desire to express an authentic self and the pressure to show our best selves online." But studies show we don't actually present our best, most sympathetic selves when we write, although we think we do. A recent study showed that our friends think we are better in person than in our profiles. The Facebook of the envy spiral can even turn us against each other. "Our research clearly shows that in many cases self-promotional information is seen negatively and interpreted very judgmentally," Krasnova says. Some researchers warn we are growing more narcissistic—and correspondingly less empathetic—as a result of the time we spend managing our image online. "There's little data that suggests that narcissism is a great thing," Epley says. "It's pretty good in the short run; not so good for you in the long run in terms of your relationships." Perhaps the most intriguing finding in the recent literature, however, is that people do themselves the most harm when they're not posting. For a study published this year, Kross and his colleagues invited 84 University of Michigan undergraduates to a lab, where they instructed half of the subjects to use Facebook actively and half to use it passively. Active use is posting status updates, chatting,

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responding to a comment, while passive use is scrolling through news feeds, looking at pictures, and looking at status updates. A few hours after the session, the active users felt the same, yet the passive users felt a drop in mood. "When you're just passively using Facebook, you develop more feelings of envy, which in turn lead people to feel worse over time," Kross says. On the one hand, the finding is a good thing. It means that there's a way to escape the Facebook blues without losing access to social media's positive benefits: Be more active. On the other hand, very few of us take advantage of that loophole. It was found that subjects were about 50 percent more likely to use Facebook passively than actively. It's not clear why people are so passive. Maybe it's just a lot less work to browse than post, but other lines of research on Facebook's dark sides indicate that people worry about unintentionally insulting someone, putting their relationships or jobs at risk, or just looking like a loser wasting time online. The specter of public shaming looms over every post. Whatever the reason, most of the time that people are using social media, they're using it in a way that is potentially harmful—that is, passively. Fortunately, social-networking research is one scientific field where findings can be translated into practice at light speed. Studies in the pipeline will likely reveal both beneficial and harmful behaviors that go beyond the passive and active dichotomy, as well as elucidate outcomes for different groups of users—people from different cultures, different age groups, and with different psychological predispositions. Scientists still lack a comprehensive picture of how social media technologies work on human nature, but the hope is, by identifying the mechanisms that push people to feel worse, we can begin

to come up with a formula for an optimal way to interact with the technology. (4)

Exercise III.

Find paragraphs, dealing with the following: virtual, enthusiastic, response, "technostress," fit, laboratory, platforms, impact, undergraduates, mood

Exercise IV.

Fill in the gaps.

1. For a lot of hockey fans, fights and hard hits are part of the …................... of the game.

2. The bill for years of mismanagement has come due just as crucial elections …................................

3. Sheriff discovered a revolver at the scene, still loaded with …............................

4. Self-esteem can also be based on what we …............................... as the view others have of us.

5. Storms also could ….................... into the evening, and light rain is possible overnight.

6. Most top Democratic policymakers agree that early …......................... would be a mistake.

7. Two possible solutions spring to mind, although both would …..................... resistance.

8. Get rid of that …............................ strike-zone graphic that eats up the right side of screen.

9. The findings, reported in Psychological Science, were …..................... and unexpected.

10. Now I've seen two, and both of them …................................ on the much-hyped technology.

Exercise V.

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

to shed the light, crops up , fit with , put one's relationships, put one's jobs at risk , to come up with , in particular, to be stressing somebody out, go out one-to-one, go out one-to-many.

Exercise VI .

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

to encounter	likely to deceive people:
comprehensive	to go away from a place or person in order to escapefrom fighting or danger:
predisposition	to think of something in a particular way
intriguing	the process of changing, or a change from one form or condition to another
recipient	meet (someone) unexpectedly
tricky	not done willingly, or not done intentionally
to retreat	of or relating to understanding
to perceive	an inclination beforehand to interpret statements in a particular way
transition	arouse the curiosity or interest of; fascinate
involuntary	a person who receives something

ExerciseVII.

Summarize the article "Is the world really better than ever?"

Part 2

Exercise I.

Identify the part of speech the words belong to: participants, possible, ability, ironically, transition, sociologist, beneficial, sociologist, empathy, equal

Exercise II.

Form verbs from the following words:

influential (1), connections (1), pressures (2), exhaustion (3), attractive (3), explanation (3), competition (3), adaptive (3), presentation (3), correspondingly (4)

Exercise III.

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

emotional (1), happiness (1), classic (1), essential (1), depression (2), entertaining (2), harm (4), escape (4), beneficial (4), comfort (1)

Exercise IV .

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

free (1), amateur (1), support (1), enthusiastic (1), suspect (1), stress (1), fun (1), success (1), giant (1), dark (4)

Exercise V.

Match the words to make word combinations:

daily	field

social	sides
information	league
emotional	life
scientific	systems
free	support
optimal	network
football	predispositions
dark	time
psychological	way

3. **Dreams of destiny**

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: routines, real, principle, concentration, idea, giant, command, focus, resources, concentrate

Exercise II.

Make sure you know the following words and word combinations. dissipated, compelling, humble, devastating, dread, to be commuted, to stake, congruent, credentials, to proclaim

Dreams of destiny

A consistent man believes in destiny, a capricious man in chance.

We all have dreams... We all want to believe deep down in our souls that we have a special gift, that we can make a difference, that we can touch others in a special way, and that we can make the world a better place. At one time in our lives, we all had a vision for the quality of life that we desire and deserve. Yet, for many of us, those dreams have become so shrouded in the frustrations and routines of daily life that we no longer even make an effort to accomplish them. For far too many, the dream has dissipated —and with it, so has the will to shape our destinies. Many have lost that sense of certainty that creates the winner's edge. My life's quest has been to restore the dream and to make it real, to get each of us to remember and use the unlimited power that lies sleeping within us all. I learned to harness the principle I now call concentration of power. Most people have no idea of the giant capacity

we can immediately command when we focus all of our resources on mastering a single area of our lives.When we focus consistently on improvement in any area, we develop unique distinctions on how to make that area better. One reason so few of us achieve what we truly want is that we never concentrate our power. Most people dabble their way through life, never deciding to master anything in particular. In fact, I believe most people fail in life simply because they major in minor things. I believe that one of life's major lessons is learning to understand what makes us do what we do. What shapes human behavior? The answers to this question provide critical keys to shaping your own destiny. My entire life has been continually driven by a singular, compelling focus: What makes the difference in the quality of people's lives? How is it that so often people from such humble beginnings and devastating backgrounds manage in spite of it all to create lives that inspire us? Conversely, why do many of those born into privileged environments, with every resource for success at their fingertips, end up frustrated? What makes some people's lives an example and others' a warning? What is the secret that creates passionate, happy, and grateful lives in many, while for others the refrain might be, "Is that all there is?"(1)

How to create lasting change. For changes to be of any true value, they've got to be lasting and consistent. We've all experienced change for a moment, only to feel let down and disappointed in the end. In fact, many people attempt change with a sense of fear and dread because unconsciously they believe the changes will only be temporary. I'd like to share with you three elementary principles of change that you

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and I can use immediately to change our lives. While these principles are simple, they are also extremely powerful when they are skillfully applied. These are the exact same changes that an individual must make in order to create personal change, that a company must make in order to maximize its potential, and that a country must make in order to carve out its place in the world. Any time you sincerely want to make a change, the first thing you must do is to raise your standards. Think of the far-reaching consequences set in motion by men and women who raised their standards and acted in accordance with them, deciding they would tolerate no less. If you raise your standards but don't really believe you can meet them, you've already sabotaged yourself. You won't even try; you'll be lacking that sense of certainty that allows you to tap the deepest capacity that's within you even as you read this. Our beliefs are like unquestioned commands, telling us how things are, what's possible and what's impossible. They shape every action, every thought, and every feeling that we experience. As a result, changing our belief systems is central to making any real and lasting change in our lives. We must develop a sense of certainty that we can and will meet the new standards before we actually do. Without taking control of your belief systems, you can raise your standards as much as you like, but you'll never have the conviction to back them up. In order to keep your commitment, you need the best strategies for achieving results. One of my core beliefs is that if you set a higher standard, and you can get yourself to believe, then you certainly can figure out the strategies. I'll tell you now that the best strategy in almost any case is to find a role-model, someone who's already getting the results you want. Not only

will this make you more effective, it will also save you a huge amount of time because you won't have to reinvent the wheel. You can fine-tune it, reshape it, and perhaps even make it better. Too many of us leave ourselves at the mercy of outside events over which we may have no control, failing to take charge of our emotions—over which we have all the control—and relying instead on short-term quick fixes. The purpose of this book is not just to help you make a singular change in your life, but rather to be a pivot point that can assist you in taking your entire life to a new level. (2)

Decisions: the pathway to power. Man is born to live and not to prepare to live. As you look back over the last ten years, were there times when a different decision would have made your life radically different from today, either for better or for worse? Remember, man is not the creature of circumstances; circumstances are the creatures of men. More than anything else, I believe it's our decisions, not the conditions of our lives, that determine our destiny. You and I both know that there are people who were born with advantages: they've had genetic advantages, environmental advantages, family advantages. Yet you and I also know that we constantly meet, read, and hear about people who against all odds have exploded beyond the limitations of their conditions by making new decisions about what to do with their lives. They've become examples of the unlimited power of the human spirit. Think for a moment. Is there a difference between being interested in something, and being committed to it? You bet there is! Many times people say things like, "I really would like to make more money," or "I'd like to be closer to my kids," or "You know, I'd really like to make a

difference in the world." But that kind of statement is not a commitment at all. It's merely stating a preference, saying, "I'm interested in having this happen, if I don't have to do anything." That's not power! It's a weak prayer made without even the faith to launch it. If you don't set a baseline standard for what you'll accept in your life, you'll find it's easy to slip into behaviors and attitudes or a quality of life that's far below what you deserve. You need to set and live by these standards no matter what happens in your life. Even if it all goes wrong, even if the stock market crashes, even if your lover leaves you even if no one gives you the support that you need, you still must stay committed to your decision that you will live your life at the highest level. Unfortunately, most people never do this because they're too busy making excuses. The reason they haven't achieved their goals or are not living the lives they desire is because of the way their parents treated them, or because of the lack of opportunities that they experienced in their youth, or because of the education they missed, or because they're too old, or because they're too young. All of these excuses are nothing but Belief Systems! And they're not only limiting, they're destructive. Nothing can resist the human will that will stake even its existence on its stated purpose. Your life changes the moment you make a new, congruent, and committed decision. The most exciting thing about this force, this power, is that you already possess it. The explosive impetus of decision is not something reserved for a select few with the right credentials or money or family background. It's available to the common laborer as well as the king. Will today be the day you decide once and for all to make your life consistent with the quality of your spirit? Then start by proclaiming,

"This is who I am. This is what my life is about. And this is what I'm going to do. Nothing will stop me from achieving my destiny. I will not be denied!" Concerning all acts of initiative and creation, there is one elementary truth—that the moment one definitely commits oneself, then Providence moves, too. If making decisions is so simple and powerful, then why don't more people follow Nike's advice and "Just Do It"? I think one of the simplest reasons is that most of us don't recognize what it even means to make a real decision. Part of the problem is that for so long most of us have used the term "decision" so loosely that it's come to describe something like a wish list. Instead of making decisions, we keep stating preferences. Making a true decision means committing to achieving a result and cutting yourself off from any other possibility. I know of no more encouraging fact than the unquestionable ability of man to elevate his life by a conscious endeavor. I believe that life is like a river, and that most people jump on the river of life without ever really deciding where they want to end up. So, in a short period of time, they get caught up in the current: current events, current fears, current challenges. They merely "go with the flow." They become a part of the mass of people who are directed by the environment instead of by their own values. As a result, they feel out of control. They remain in this unconscious state until one day the sound of the raging water awakens them, and they discover that they're five feet from Niagara Falls in a boat with no oars. It's likely that whatever challenges you have in your life currently could have been avoided by some better decisions upstream. (3)

I am not discouraged, because every wrong attempt discarded is another step forward. Remember: Success truly is the result of good judgment. Good judgment is the result of experience, and experience is often the result of bad judgment! Those seemingly bad or painful experiences are some times the most important. When people succeed, they tend to party; when they fail, they tend to ponder, and they begin to make new distinctions that will enhance the quality of their lives. We must commit to learning from our mistakes, rather than beating ourselves up, or we're destined to make the same mistakes again in the future. We will either find a way, or make one. One of the most important decisions you can make to ensure your long-term happiness is to decide to use whatever life gives you in the moment. The truth of the matter is that there's nothing you can't accomplish if: 1) You clearly decide what it is that you're absolutely committed to achieving, 2) You are willing to take massive action, 3) You notice what's working or not, and 4) You continue to change your approach until you achieve what you want, using whatever life gives you along the way. If you are distressed by anything external, the pain is not due to the thing itself but to your own estimate of it; and this you have the power to revoke at any moment. We are the only beings on the planet who lead such rich internal lives that it's not the events that matter most to us, but rather, it's how we interpret those events that will determine how we think about ourselves and how we will act in the future. One of the things that makes us so special is our marvelous ability to adapt, to transform, to manipulate objects or ideas to produce something more pleasing or useful. And foremost among our adaptive talents is the ability to take the

raw experience of our lives, relate it to other experiences, and create from it a kaleidoscopic tapestry of meaning that's different from everyone else's in the world. (4)

Adapted from "Awaken the Giant Within" by Tony Robbins

Exercise III.

Find paragraphs, dealing with the following: dabble, fail, shapes, keys, entire, humble, privileged, warning, passionate, temporary

Exercise IV.

Fill in the gaps.

1. We need him to be …..................... and we're looking for him to accept responsibility.

2. Democracy is unreliable, …...................., and corruptible, to the extent that we are.

3. The speed and size of computer chips are limited by how much heat they …..........................

4. Proponents of shifting the city elections to November have …...................arguments.

5. He was forced to come out of his comfort zone and put himself in a …...................... place.

6. Hurricanes Katrina and Rita were **…....................** reminders of this frightening fact.

7. Their …....................... and its manifestations comprise the central theme of this book.

8. Reputations are built not on claims, but on service, experience, and …......................................

9. This means you've been licensed or certified and have the necessary ….............................

10. Enormous all-capital letters in the front windows …........................ the bank is now open.

Exercise V.

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

to carve out (2), set in motion (2), to raise one's standards (2), to act in accordance with (2), to tap the deepest capacity (2), to take control (2), to back them up (2), to keep your commitment (2), figure out(2), to take charge of our emotions(2)

Exercise VI.

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

core	given to sudden and unaccountable changes of mood or behavior
temporary	not containing any logical contradictions
individual	not lasting or needed for very long
commitment	the basic and most important part of something
distinction	a single person or thing, especially when compared to the group or set to which they belong
conviction	done with delicacy and skill
to carve	a difference between

	two similar things
capricious	to make something by cutting into especially wood or stone, or to cut into the surface of stone, wood, etc.
consistent	a willingness to give your time and energy to something that you believe in, or a promise or firm decision to do something
skillful	the fact of officially being found to be guilty of a particular crime, or the act of officially finding someone guilty

Exercise VII.

Summarize the article "Dreams of destiny"

Part 2

Exercise I.

Identify the part of speech the words belong to.

Conviction, daily, accomplish, certainty, principle, concentration, immediately, consistently, improvement, distinctions

Exercise II .

Form adjectives from the following words: desire (1), certainty (1), immediately (1), power (1), simply (1), difference (1), create (1), environment (1), success (1), value (1).

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Exercise III.

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

fear (1), standard (1), disappointed (1),   attempt (1), exact (1), changes (1), sincerely (1), motion (1), marvelous (3), manipulate (3)

Exercise IV.

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

temporary (1), powerful (1), useful (3), special (3), future (3), talent (3), ability (3), internal (3), adapt (3), rich (3)

Exercise V.

Match the words to make word combinations:

baseline	fixes
unlimited	commands
capricious	systems
human	beliefs
far-reaching	power
unquestioned	behavior
belief	standard
core	man
quick	advantages
genetic	consequences

4. The end of sleep?

Part 1

Exercise I.

Say what Russian words help to guess the meaning of the following words: radically, biological, cultural, practices, platform, actually, traditional, universal, rhythms, cycles

Exercise II.

Make sure you know the following words and word combination

lavishly, sporadically, circadian, free-running, all-nighter, truism, restorative, ailment, curtailment, civilian

The end of sleep?

New technologies are emerging that could radically reduce our need to sleep - if we can bear to use them (1)

Work, friendships, exercise, parenting, eating, reading — there just aren't enough hours in the day. To live fully, many of us carve those extra hours out of our sleep time. Then we pay for it the next day. A thirst for life leads many to pine for a drastic reduction, if not elimination, of the human need for sleep. Little wonder: if there were a widespread disease that similarly deprived people of a third of their conscious lives, the search for a cure would be lavishly funded. It's the Holy Grail of sleep researchers, and they might be closing in. As with most human behaviours, it's hard to tease out our biological need for sleep from the cultural practices that interpret it. The practice of sleeping for eight hours on a soft, raised platform, alone or in pairs, is actually atypical for humans. Many traditional societies sleep more sporadically,

and social activity carries on throughout the night. Sleeping is universal, but there is glorious diversity in the ways we accomplish it. Circadian rhythms, the body's master clock, allow us to anticipate daily environmental cycles and arrange our organ's functions along a timeline so that they do not interfere with one another. Our internal clock is based on a chemical oscillation, a feedback loop on the cellular level that takes 24 hours to complete and is overseen by a clump of brain cells behind our eyes (near the meeting point of our optic nerves). Even deep in a cave with no access to light or clocks, our bodies keep an internal schedule of almost exactly 24 hours. This isolated state is called 'free-running', and we know it's driven from within because our body clock runs just a bit slow. When there is no light to reset it, we wake up a few minutes later each day. It's a deeply engrained cycle found in every known multi-cellular organism, as inevitable as the rotation of the Earth — and the corresponding day-night cycles — that shaped it. One of the most valuable outcomes of work on sleep deprivation is the emergence of clear individual differences — groups of people who reliably perform better after sleepless nights, as well as those who suffer disproportionately. The division is quite stark and seems based on a few gene variants that code for neurotransmitter receptors, opening the possibility that it will soon be possible to tailor stimulant variety and dosage to genetic type. (2)

For any college student who has pulled an all-nighter guzzling energy drinks to finish an essay, it should come as no surprise that the stimulants enable extended, focused work. A more challenging test would be to successfully navigate a phone call from his or her

grandmother. It is very difficult to design a stimulant that offers focus without tunnelling – that is, without losing the ability to relate well to one's wider environment and therefore make socially nuanced decisions. One reason why stimulants have proved a disappointment in reducing sleep is that we still don't really understand enough about why we sleep in the first place. More than a hundred years of sleep deprivation studies have confirmed the truism that sleep deprivation makes people sleepy. Slow reaction times, reduced information processing capacity, and failures of sustained attention are all part of sleepiness, but the most reliable indicator is shortened sleep latency, or the tendency to fall asleep faster when lying in a dark room. The conclusion remains that sleep's primary function is to maintain our wakefulness during the day. Since stimulants have failed to offer a biological substitute for sleep, the new watchword of sleep innovators is 'efficiency', which means in effect reducing the number of hours of sleep needed for full functionality. The Defense Advanced Research Projects Agency (DARPA) – the research arm of the US military – leads the way in squeezing a full night's sleep into fewer hours, by forcing sleep the moment head meets pillow, and by concentrating that sleep into only the most restorative stages. Soldiers on active duty need to function at their cognitive and physiological best, even when they are getting only a few hours sleep in a 24-hour cycle. Nancy Wesensten, a psychologist for the Center for Military Psychiatry and Neuroscience, has a mission to find ways to sustain soldier operations for longer, fighting the effects of acute or chronic sleep deprivation. She has argued that individual's sleep should be regarded as an important resource, just like food or fuel.

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Working with the Marine corps, Wesensten is not trying to create a super warrior who can stay awake indefinitely. She does not even see herself trying to enhance performance, as she already considers her subjects the elite of the elite. Everyone has to sleep eventually, but the theatre of war requires soldiers to stay awake and alert for long stretches at a time. She is cautious about the usefulness of stimulants, 'Every so often, a new stimulant comes along, and it works well, and there's a lot of interest, and then you don't hear anything more about it, because it has its limitations.' With military personnel in mind, she has developed a mask that exploits one- or two-hour windows for strategic naps in mobile sleeping environments. Screening out noise and visual distractions, the mask carries a heating element around the eyes, based on the finding that facial warming helps send people to sleep. It also carries a blue light that gradually brightens as your set alarm time approaches, suppressing the sleep hormone for a less groggy awakening. The mask is only one of many attempts to maintain clarity in the mind of a soldier. Another initiative involves dietary supplements. The question remains whether measures that block short-term sleep deprivation symptoms will also protect against its long-term effects. A scan of the literature warns us that years of sleep deficit will make us fat, sick and stupid. A growing list of ailments has been linked to circadian disturbance as a risk factor. Both the mask and the supplements — in other words, darkness and diet — are ways of practising 'sleep hygiene', or a suite of behaviours to optimise a healthy slumber. These can bring the effect of a truncated night's rest up to the expected norm — eight hours of satisfying shut-eye. But proponents of human enhancement

aren't satisfied with normal. Always pushing the boundaries, some techno-pioneers will go to radical lengths to shrug off the need for sleep altogether. (3)

Full control of our sleep cycles could maximise time spent in slow-wave sleep, ensuring full physical and mental benefits while cutting sleep time in half. Your four hours of sleep could feel like someone else's eight. The question is whether the strangeness of the idea will keep us from accepting it. If society rejects sleep curtailment, it won't be a biological issue; rather, the resistance will be cultural. The war against sleep is inextricably linked with debates over human enhancement. Sleepiness and a lack of mental focus are indistinguishable, and many of the pharmaceutically based cognitive enhancers on the market work to combat both. If only it were possible for the restorative functions that happen during sleep to occur simply during waking hours instead. Just as most planes must be grounded to refuel, we must be asleep to restore our brains for the next day. A radical sleep technology would permit the equivalent of aerial refuelling, which extends the range of a single flight (or waking day). Such attempts are likely to meet with powerful resistance from a culture that assumes that 'natural' is 'optimal'. Perceptions of what is within normal range dictate what sort of human performance enhancement is medically acceptable. Never mind that if we are to speak of maintaining natural sleep patterns, that ship sailed as soon as artificial light turned every indoor environment into a perpetual mid-afternoon in May. Human enhancement is now being driven by military imperatives, at least in the US, because civilian society is more conservative in its approach. It's a missed opportunity for a society-wide

push to understand and reduce our need to power the brain down for hours every day. Every hour we sleep is an hour we are not working, finding mates, or teaching our children; sleep could be the greatest mistake the evolutionary process ever made. (4)

Should the technologies aimed at tailoring of our ancient brains to suit our modern demands prove safe and become widely available, they would represent an alternate route to human longevity, extending our conscious lifespan by as much as 50 per cent. Many of us cherish the time we spend in bed, but we don't consciously experience most of our sleeping hours — if they were reduced without extra fatigue, we might scarcely notice a difference. Now a life lived at 150 per cent might be within our grasp. Are we brave enough to choose it? (5)*Adapted from Aeon.*

Exercise III.

Find paragraphs, dealing with the following: engrained, stark, guzzling, tunneling, indicator, wakefulness, watchword, operations, fuel, marine

Exercise IV.

Fill in the gaps.

1. He'll …..................... out a place for himself in the Senate on business and budget issues.

2. Sometimes,   however,   circumstances   dictate   a   more …..................... and immediate approach.

3. …..................... paid business leaders tend not to be the most popular people these days.

4. In obese individuals, the natural …..................... rhythms are believed to be disrupted.

5. Being in nature often is …........................ for us while also inspiring reflection

6. Because of the …........................ of working hours, there is far less economic activity.

7. Our perception of the EU is **…..................** with our perception of ourselves.

8. It boasts a taste that's virtually …........................ from that of regular Coke.

9. If you learn to love jazz, you will have a …........................ source of joy at the ready.

10.   If Mr. Specter is holding on to his membership in hopes of bringing his party back to its senses, well, …..................................

Exercise V.

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

to tease out from, within our grasp, to keep somebody from, to meet with powerful resistance from , risk factor, make socially nuanced decisions

Exercise VI .

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

indistinguishable	the people who are employed in a company, organization, or one of the armed forces
to exploit	cut (a hard material) in order to produce an aesthetically pleasing object or design
perpetual	to accept, tolerate, or endure something, especially so

	mething unpleasant
supplements	a chemical that carries messages bet ween neurons or between neurons and muscles
drastic	continuing for ever in the same way
to carve	impossible to judge as being different when compared to another similar thing
to bear	to use something in a way that helps you
neurotransmitter	something that is added to something else in order to improve i t or complete it; something extra
reliably	severe and sudden or having very noticeable effects
personnel	in a faithful manner

Exercise VII.

Summarize the article "The end of sleep?".

Part 2

Exercise I.

Identify the part of speech the words belong to: multi-cellular, organism, inevitable, rotation, valuable, deprivation, emergence, individual, differences, reliably

Exercise II .

Form adverbs from the following words:

day (1), conscious (1), biological (1), cultural (1), traditional (1), social (1), complete (1), deep (1), slow (1), inevitable (1)

Exercise III.

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

rotation (2), valuable (2), suffer (2), energy (3), attempt (3), dictate (3), design (3), understand (3), slow (3), conclusion (3)

Exercise IV.

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

variant (2),   finish (3), modern (3), reduce (3), enable (3), extend (3), navigate (3)natural (4), demand(5), brave (5)

Exercise V.

Match the words to make word combinations:

sleep	outcomes
stimulant	variants
genetic	loop
neurotransmitter	time
feedback	type
gene	variety
inextricably	nights
valuable	linked
sleepless	organism
multi-cellular	receptors

SUPPLEMENTARY READING

1. Sim ethics

Say you could make a thousand digital replicas of yourself – should you? What happens when you want to get rid of them?

If you've ever dabbled in role-playing games – either online or in old-fashioned meatspace – you'll know how easy it is to get attached to your avatar. It really hurts when your character gets mashed by a troll, felled by a dragon or slain by a warlock. The American sociologist (and enthusiastic gamer) William Sims Bainbridge has taken this relationship a step further, creating virtual representations for at least 17 deceased family members. In a 2013 essay about online avatars, he foresees a time when we'll be able to offload parts of our identity onto artificially intelligent simulations of ourselves that could function independently of us, and even persist after we die.

What sorts of responsibilities would we owe to these simulated humans? However else we might feel about violent computer games, no one seriously thinks it's homicide when you blast a virtual assailant to oblivion. Yet it's no longer absurd to imagine that simulated people might one day exist, and be possessed of some measure of autonomy and consciousness. Many philosophers believe that minds like ours don't have to be hosted by webs of neurons in our brains, but could exist in many different sorts of material systems. If they're right, there's no obvious reason why sufficiently powerful computers couldn't hold consciousness in their circuits.

Today, moral philosophers ponder the ethics of shaping human populations, with questions such as: what is the worth of a human life? What kind of lives should we strive to build? How much weight should we attach to the value of human diversity? But when it comes to thinking through the ethics of how to treat simulated entities, it's not clear that we should rely on the intuitions we've developed in our flesh-and-blood world. We feel in our bones that there's something wrong with killing a dog, and perhaps even a fly. But does it feel quite the same to shut down a simulation of a fly's brain – or a human's? When 'life' takes on new digital forms, our own experience might not serve as a reliable moral guide.

Adrian Kent, a theoretical physicist at the University of Cambridge, has started to explore this lacuna in moral reasoning. Suppose we become capable of emulating a human consciousness on a

computer very cheaply, he suggested in a recent paper. We'd want to give this virtual being a rich and rewarding environment to interact with – a life worth living. Perhaps we might even do this for real people by scanning their brain in intricate detail and reproducing it computationally. You could imagine such a technology being used to 'save' people from terminal illness; some transhumanists today see it as a route to immortal consciousness.

Sure, this might all be a pipe dream – but bear with it. Now let's bring to the table a set of moral principles known as utilitarianism, introduced by Jeremy Bentham in the late 18th century and subsequently refined by John Stuart Mill. All things considered, Bentham said, we should strive to attain the maximum happiness (or 'utility') for the greatest number of people. Or, to use Mill's words: 'actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness'.

As a principle for good conduct, there's plenty to criticise. For example, how can we measure or compare types of happiness – weighing up the value of a grandmother's love, for example, against the elation of being a virtuoso concert pianist? 'Even if you want to take utilitarianism seriously, you don't really know what the qualities you're putting into the calculus really mean,' Kent tells me. Nonetheless, most belief systems today implicitly accept that a moral compass pointing towards greater happiness is more sound than one aligned in the opposite direction.

In Kent's scenario, one might be tempted to argue on utilitarian grounds that we're obliged to go forth and multiply our simulated beings – call themsims – without constraint. In the real world, such unchecked procreation has obvious drawbacks. People would struggle, emotionally and economically, with huge families; overpopulation is already placing great strain on global resources; and so on. But in a virtual world, those limits needn't exist. You could simulate a utopia with almost unlimited resources. Why, then, should you not make as many worlds as possible and fill them all with sublimely contented sims?

Our intuition might answer: what's the point? Maybe a conscious sim just wouldn't have the same intrinsic value as a new flesh-and-blood person. That's a doubt that Michael Madary, a specialist in the philosophy of mind and ethics of virtual reality at Tulane University in New Orleans, believes we ought to take seriously. 'Human life has a mysterious element to it, leading us to ask classical philosophical

questions such as: why is there something instead of nothing? Is there meaning to life? Are we obligated to live ethically?' he told me. 'The simulated mind might ask these questions, but, from our perspective, they are all phoney' – since these minds exist only because we chose to invent them.

To which one might respond, as some philosophers already have: what's to say that we're not all simulated beings of this sort? We can't rule out the possibility, yet we still regard such questions as meaningful to us. So we might as well assume their validity in a simulation.

Pressing on, then, Kent asks: is it morally preferable to create a population of identical beings, or one in which everyone is different? It's certainly moreefficient to make the beings identical – we need only the information required for one of them to make N of them. But our instincts probably tell us that diversity somehow has more worth. Why, though, if there's no reason to think that N different individuals will have greater happiness thanN identical ones?

Kent's perspective is that different lives are preferable to multiple copies of a single life. 'I find it hard to escape the intuition that a universe with a billion independent, identical emulations of Alice is less interesting and less good a thing to have created than a universe with a billion different individuals emulated,' he says. He calls this notion replication inferiority.

In a cosmos populated by billions of Alices, Kent wonders if it's even meaningful to talk about the same life duplicated many times – or whether we'd simply be talking about a single life, spread out over many worlds. That might mean that many Alices in identical environments are no more valuable than one, a scenario he describes as replication futility. 'I edge towards this view,' Kent says – but he admits that he can't find a watertight argument to defend it.

Kent's thought-experiment touches on some longstanding conundrums in moral philosophy that have never been satisfactorily addressed. The British philosopher Derek Parfit, who died last year, dissected them in his monumental work on identity and the self, Reasons and Persons (1984). Here, Parfit pondered questions such as how many people there should be, and whether it's always morally better to add a life worth living to the tally of the world, when we can.

Even if you accept a utilitarian point of view, there's a problem with seeking the greatest happiness for the greatest number: the dual criteria create ambiguity. For example, imagine that we have control

over how many people there are in a world of finite resources. Then you might think that there must be some optimal number of people that allows (in principle) the best use of resources to ensure happiness and prosperity to all. But surely we could find room in this utopia for just one more person? Wouldn't it be acceptable to decrease everyone's happiness by a minuscule amount to permit one more happy life?

The trouble is, there's no end to that process. Even as the numbers go on swelling, the additional happiness of the new lives could outweigh the cost to those already alive. What you end up with, said Parfit, is the 'repugnant conclusion': a scenario where the best outcome is a bloated population of people whose lives are all miserable, yet still marginally better than no life at all. Collectively, their meagre scraps of happiness add up to more than the sum for a smaller number of genuinely happy individuals. 'I find this conclusion hard to accept,' Parfit wrote – but can we justify that intuition? For his part, Kent is not sure. 'I don't think there is any consensual resolution of the repugnant conclusion,' he says.

At the core of the matter is what Parfit called the 'nonidentity problem': how can we think rationally about questions concerning individuals whose very existence or not depends on choices we make (such as whether we can find room for 'just one more')? It's not so hard, in principle, to weigh up the harms and benefits that might accrue to an individual if we take some course of action that affects them. But if that calculus entails the possibility of the person never having existed, we no longer know how to do the maths. Compared with the zero of nonexistence, almost anything is a gain, and so all kinds of unappetising scenarios seem to become morally supportable.

There's another, even stranger scenario in this game of population utilitarianism. What if there was an individual being with such enormous capacity for happiness that it gained much more than any of the sacrifices it demanded of others? The American philosopher Robert Nozick called this creature a 'utility monster', and summoned it up as a critique of utilitarianism in his book Anarchy, State and Utopia (1974). This picture seems, in Nozick's words, 'to require that we all be sacrificed in the monster's maw, in order to increase total utility'. Much of Parfit's book was an attempt – ultimately unsuccessful – to find a way to escape both the repugnant conclusion and the utility monster.

Now recall Kent's virtual worlds full of sims, and his replication inferiority principle – that a given number of different lives has more worth than the same number of identical ones. Perhaps this allows us to

escape Parfit's repugnant conclusion. Despite what Leo Tolstoy says about the particularity of unhappy families in the opening line of *Anna Karenina* (1878), it seems likely that the immense number of miserable lives would be, in their bleak drabness, all pretty much identical. Therefore, they wouldn't add up to increase the total happiness drip by drip.

But by the same token, replication inferiority favours the utility monster – for by definition the monster would be unique, and therefore all the more 'worthy', in comparison with some inevitable degree of similarity among the lives fed into its ravenous maw. That doesn't feel like a very satisfactory conclusion either. 'It would be nice for people to devote more attention to these questions,' Kent admits. 'I'm in a state of some puzzlement about them.'

For the American libertarian economist Robin Hanson – a professor of economics at George Mason University in Virginia and a research associate at the Future of Humanity Institute at the University of Oxford – these musings are not thought-experiments so much as predictions of the future. His book *The Age of Em* (2016) imagines a society in which all humans upload their consciousness to computers so as to live virtual lives as 'emulations' (not sims, then, but ems). 'As population continues to grow, more and more people may choose to live in artificial realities, which can be much roomier on the inside than on the outside,' Hanson writes. 'One can imagine a great orbiting computer, a cubic kilometre of circuitry, housing billions of uploaded people in relative comfort.'

Hanson has considered in detail how this economy might work. Ems could be of any size – some would be very small – and time might run at different rates for ems compared with humans. To maximise safety and productivity, there would be total surveillance and subsistence wages, but ems could probably shut out that misery by choosing to remember lives of leisure. (Hanson is among those who think we might already be living in such a virtual world.)

This scenario allows the possibility of duplicated selves, and Hanson says that the problem of identity is therefore fuzzy-edged: duplicates are 'the same person' initially, but gradually diverge in their personal identity as they proceed to live out separate lives, rather as identical twins do. 'Once the mind has been transferred to an artificial substrate like a computer, it would be relatively trivial to make two, three or dozens of simultaneously active copies of a person,' he told me.

Hanson envisages that duplication of persons will be not only possible, but desirable. In the coming age of ems, people with particularly valuable mental traits would be 'uploaded' multiple times. And in general, people will want to make multiple copies of themselves anyway as a form of insurance. 'They would prefer enough redundancy in their implementation to ensure that they can persist past unexpected disasters,' Hanson says.

But he doesn't think they'll opt for Kent's scenario of identical lives. Ems 'would place very little value on running the exact same life again in different times and places,' Hanson told me. 'They will place value on many copies mainly because those copies can do work, or form relationships with others. But such work and relations require that each copy be causally independent, and have histories entwined with their differing tasks or relation partners.'

Still, ems would need to grapple with moral quandaries that we're ill-equipped to evaluate right now. 'I don't think that the morals that humans evolved are general or robust enough to give consistent answers to such situations so far outside of our ancestors' experience,' Hanson says. 'I predict that ems would hold many different and conflicting attitudes about such things.'

Right now, all this might sound uncomfortably like the apocryphal medieval disputes about angels dancing on pinheads. Could we ever make virtual lives that lay claim to real aliveness in the first place? 'I don't think anyone can confidently say whether it's possible or not,' says Kent – partly because 'we have no good scientific understanding of consciousness.'

Even so, technology is marching ahead, and these questions remain wide open. The Swedish philosopher Nick Bostrom, also at the Future of Humanity Institute, has argued that the computing power available to a 'posthuman' civilisation should easily be able to handle simulated beings whose experience of the world is every bit as 'real' and rich as ours. (Bostrom is another of those who believes it is possible that we're already in such a simulation.) But questions about how we ought to shape populations might not need to wait until the posthuman era. This 'could become a real dilemma for future programmers, researchers and policymakers in the not necessarily far distant future,' says Kent.

There might already be real-world implications for Kent's scenario. Arguments about utility maximisation and the nonidentity problem arise in discussions of the promotion and the prevention of

human conception. When should a method of assisted conception be refused on grounds of risk, such as growth abnormalities in the child? No new method can ever be guaranteed to be entirely safe (conception never is); IVF would never have begun if that had been a criterion. It's commonly assumed that such techniques should fall below some risk threshold. But a utilitarian point of view challenges that idea.

For example, what if a new method of assisted reproduction had a moderate risk of very minor birth defects – such as highly visible birthmarks? (That's a real argument: Nathaniel Hawthorne's short story 'The Birth-Mark' (1843), in which an alchemist-like figure tries, with fatal consequences, to remove his wife's blemish, was cited in 2002 by the bioethics council of the then US president George W Bush's administration, as they deliberated on questions about assisted conception and embryo research.) It's hard to argue that people born by that method who carried a birthmark would be better off never having been conceived by the technique in the first place. But where then do we draw the line? When does a birth defect make it better for a life not to have been lived at all?

Some have cited this quandary in defence of human reproductive cloning. Do the dangers, such as social stigma or distorted parental motives and expectations, really outweigh the benefit of being granted life? Who are we to make that choice for a cloned person? But whom then would we be making the choice for, before the person exists at all?

This sort of reasoning seems to require us to take on a God-like creative agency. Yet a feminist observer might fairly ask if we're simply falling prey to a version of the Frankenstein fantasy. In other words, is this a bunch of men getting carried away at the prospect of being able to finally fabricate humans, when women have had to ponder the calculus of that processforever? The sense of novelty that infuses the whole debate certainly has a rather patriarchal flavour. (It can't be ignored that Hanson is something of a hero in the online manosphere, and has been roundly criticised for his exculpatory remarks about 'incels' and the imperatives of sexual 'redistribution'. He also betrays a rather curious attitude to the arrow of historical causation when he notes in The Age of Em that male ems might be in higher demand than female ems, because of 'the tendency of top performers in most fields today to be men'.)

Even so, the prospect of virtual consciousness does raise genuinely fresh and fascinating ethical questions – which, Kent argues, force us to confront the intuitive value we place on variations in lives and

demographics in the here and now. It's hard to see any strong philosophical argument for why a given number of different lives are morally superior to the same number of identical ones. So why do we typically think that? And how might that affect our other assumptions and prejudices?

One could argue that perceived homogeneity in human populations corrodes the capacity for empathy and ethical reasoning. Rhetoric about people from unfamiliar backgrounds as being 'faceless' or a 'mass' implies that we value their lives less than those whom we perceive to be more differentiated. Obviously, we don't like to think that this is the way that people see the world now, says Kent – 'but it's not obviously true'.

Might we even have an evolutionarily imprinted aversion to a perception of sameness in individuals, given that genetic diversity in a population is essential for its robustness? Think of movie depictions of identical twins or ranks of identical clones: it's never a good sign. These visions are uncanny – a sensation that Sigmund Freud in 1919 linked to 'the idea of the "double" (the doppelgänger) … the appearance of persons who have to be regarded as identical because they look alike'. For identical twins, this might manifest as a voyeuristic fascination. But if there were a hundred or so 'identical' persons, the response would probably be total horror.

We don't seem set to encounter armies of duplicates any time soon, either in the real world or the virtual one. But, as Kent says: 'Sometimes the value of thought-experiments is that they give you a new way of looking at existing questions in the world.' Imagining the ethics of how to treat sims, whether in the form of Hanson's worker-drones or Bainbridge's replacement relatives, exposes the shaky or absent logic that we instinctively use to weigh up the moral value of our own lives.

Adapted from Aeon.

2. Faulty Logic
Debating won't bring us closer to truth

For the past few months, a single advertisement has been relentlessly popping up in my Twitter feed. "Tired of the internet shouting factory?" it asks. "Welcome to Kialo." The name is Esperanto for "reason," and the site is a collaborative debating platform where you can host or join discussions and contribute to arguments on both sides. The promise is of a certain kind of orderly hush, a philosophers' glade

where — through quiet, structured dialogue — initiates can cleanse themselves of intellectual impurities and dress their thoughts in the plainest, most honest garments. I decided to start a debate on a topic that had become a pressing concern in my world, and which I felt genuinely conflicted about: Should art made by artists accused of abuse be removed from cultural institutions? The site is built so that each argument branches into a tree, with each statement being broken down into further pro and con discussion. As the debate's administrator, I had the primary responsibility for assessing where other contributors' statements should fit, and for helping them break down their initial entries into concise propositions.

Within a few days of beginning the discussion, I noticed some dirty footprints starting to muddy up my glade. Even though everyone had the freedom to argue on both sides of the debate, vanishingly few of my fellow symposiasts were interested in building the argument for excluding the work of abusive artists. While the site's users are anonymous, most of the usernames were male, and I was fielding a lot of entries like, "Are you suggesting abusers should be psychologically abused by being told what they produce is worthless?" The other noticeable, and related, problem was just how much trouble people had in following the structural rule meant to guide us to building coherent arguments: that each entry should be a concise claim. As a microphone at a Q&A after a film screening seems to have magical properties that make audience members forget what questions are, here was the opposite effect — would-be debaters seemed to forget what statements were.

Laying out coherent arguments is harder than it looks. In the course of a debate against Stephen Douglas in 1858 (the famous series of debates on slavery, for which the Lincoln-Douglas debate style was named) Lincoln accused his opponent of using "a specious and fantastic arrangement of words, by which a man can prove a horse-chestnut to be a chestnut horse." As audience members, we are easily fooled by this kind of semantic juggling. When we try to formulate arguments of our own, we are likely to mix up the chestnut and the horse purely by accident.

In effect, it turned out that having a civilized, carefully managed, and logically coherent debate online did something I wouldn't have expected — it made arguing boring and unsticky. I started neglecting my administrative duties and receiving notes from the site saying they

understood that responding to suggested claims could be time-consuming, but that contributors "really make an effort" and it wasn't nice to ignore them. Neither had the debate done much to advance my thinking on the topic I'd proposed. I started to wonder: Was logic an inappropriate tool with which to approach this question? When it was suggested that at issue might be how victims of abuse felt rather than what rights artists had, this avenue of discussion seemed to be a dead end — if this was about feelings, what was there to talk about?

Debate sites tend to advertise themselves as civilized upgrades to the fractiousness of online discourse. Idiots argue. Intellectuals debate, reads a banner on QallOut, where users can videoconference each other to debate topics like "The biggest problem facing the world is the federal reserve," "The narrative of Christianity is unproven," or "It is always wrong to deliberately kill a toddler." These sites espouse the hope that online debate will demolish echo chambers, embolden truth-seekers, and shame the purveyors of bullshit, broadly defined. But the perceived value of debate online relies on a somewhat regressive notion: that logic has a purity that cuts across cultural and other identities. The fixation on logic as an ideal vehicle for human progress is less a reflection of the practicality of this means of resolving our shared issues than it is a longing for a moral framework beyond human perceptions.

Perhaps it's that users aren't being rigorous enough in their application of logic to contemporary questions. But more likely, the answer isn't in a stricter adherence to the rules of formal debating, either in dedicated spaces or on social media. The utopic vision of human perfectibility through reason obscures what online spaces can actually offer: a broadening of our conception of what it is to be human.

Moderation of debate sites differs widely, as does the quality of discussion. I saw a debate on QallOut with the topic "A person's clothing is not a cause of rape"; on debate.org I saw "Vote yes if you want to kill feminist as a sport," and on createdebate.com I saw "The average Jew would kill you over a penny." Of their position on hate speech, QallOut's founders write, "If someone says something awful on QallOut, they need to step up and defend that" since "True hate speech can't stand up to this kind of scrutiny, leaving the speaker looking foolish and discredited." People talking through their disagreements one-on-one is seen as a grand project in which clashing viewpoints can be subdued by logical argumentation — and not just subdued, but

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actually resolved. Debate is presented as a good in and of itself, regardless of what exactly is being debated.

The Western consideration of rhetoric as an art begins with the Sophists, a philosophical movement that arose in Athens in the fifth century BCE. The Sophists believed there was no "truth," only perception. Everyone lives inside their own all-enveloping universe in which the physical properties of reality, to say the least of its moral qualities, are entirely individual and can in no way be measured against a common yardstick. "Man is the measure of all things," Protagoras wrote. If Protagoras thinks the water at the gymnasium is cold and Hippocrates thinks it is warm, then it is cold for Protagoras and warm for Hippocrates.

In private spheres of our lives, this relativism is (relatively) easy to work around — Protagoras can choose not to swim. But in the political sphere, when we are required to act together, how can we bridge the distance between our separate realities? The Sophists say that the best we can do under the circumstances is concede to the orator who is able to convince the largest number of people. Divorced from any objectively true vision of reality, the art of persuasion is all there is. If the majority decided to put Socrates to death, then Socrates' death was, for all intents and purposes, the right thing.

The problem of relativism is one of Western philosophy's Weebles; it tends to be knocked down only to pop back up again. Is it possible for us to know the truth about anything, and if so, how would we achieve this knowledge — also, how would we know if we had achieved it? Aristotle believed the evidence of our senses could help us describe and classify what was true about an octopus; relativism, in which one opinion was as good as another, he easily dismissed. He also set out a system of syllogisms by which we could judge whether an argument was consistent. In his seminal work, Rhetoric, he introduced the rhetorical terminology of ethos, logos, and pathos — the personal trustworthiness of the speaker, the logical coherence of the speech, and the appeal to the audience's sensibilities.

For Aristotle, rhetoric wasn't simply batting arguments about without expecting to advance shared knowledge. This is where we get the idea of "sophistry" as a pejorative, meaning to disguise a bad argument as a good argument — systematizing logical deduction as a form of reasoning was meant to eliminate the possibility of being deceived by verbal tricks. Aristotle saw the possibility of misuse in

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laying out his theory of rhetorical tactics; in the wrong hands, persuasion could be used for ill. But he generally agreed with the site administrators of QallOut — that it would be easier to convince people of things that were just and good than of things that were not. So "the average Jew would kill you over a penny" should be easy to argue against, and your audience should find arguments against this thesis more persuasive.

Contemporary debate culture seems to be a cross-breed of Sophist and Aristotelian beliefs. Ethos, logos, and pathos, or related terms, sometimes appear on judges' scoring sheets in contemporary high school or university debates — in Australia, debaters are judged on manner, matter, and method. Debates are a gamification of thinking in which the winner is the debater or debate team that manages to convince the judges — a good debater should be able to argue either side of the same question and win. This suggests that truth is relative and persuasion is all. However, debate is also lauded as a pro-social act, one in which people can improve their thinking and perhaps build greater consensus.

Today, the fundamental orientation of online debate culture is toward universals, which are more likely to spark a reaction. There is a heavy reliance on words like "always" and "never," as well as a tendency towards extreme responses to perceived social ills: "That music glorifying violence against women should be banned," "Schools should block YouTube," "Affirmative action should be abolished." It's an indulgence in a fantasy of control — if I ran the world, I would make all prospective parents attend parenting classes, or abolish progressive taxation, or fund a space mission to Mars, and the rest of you, with your individual needs and experiences, would be subsumed under the wisdom of my one rule. The fact that the high schoolers in crookedly knotted ties or Redditors killing time are not in any position to see their proposals enacted differentiates this kind of academic debate from, for instance, parliamentary debate, in which there is a risk of actual consequences. Most of us engaging in academic debates have the luxury of taking ourselves very seriously, while also being protected from urgently needing to determine where truth or justice might lie.

Winning a debate is like winning a game of tennis in the sense that afterwards, tennis is essentially unchanged. You can't solve tennis' underlying tensions by playing it, and you do not lay a question to rest by debating it. The conventionally hopeful formulation that begins the exercise — "be it resolved" — is the first misdirection, as the chance of

coming to a final answer, such that no one will ever need to discuss the question again, hovers around zero.

Sites that teach debating know this. ProCon.org offers students what would, in another context, seem like an invitation to plagiarism: lists of popular debate topics along with a rundown of common arguments on both sides, pithy quotes from experts, and rundowns of the history behind the pro and con sides. In the same way that you might study the French Defence or Alekhine's gun in chess, there are recognizable gambits that lead to well-worn counter-moves. The game is to trap your opponent in a logical corner, and the first to contradict themselves loses. It's a game that teaches us to pit the white and black positions against each other; at the same time, a utopic hope persists that at the end of the game, black and white could find themselves on the same side — the side of truth. They would get there, presumably, by way of logic. Underlying much of the enthusiasm for debate is faith in a universal mode of reasoning which could not only cut through differences in experience and vantage point, but render them irrelevant — if everyone could get onside of logic, they would reach a consensus.

The ostensible divorce of reasoning from identity becomes a meta-argument for universal truths and solutions. It works to shore up the idea that a logical truth will stand on its own no matter who is delivering it. Some users defend logic as if it were a personal friend under attack: Reddit hosts a subreddit called "a place for bad logic," where users post examples of logical gaffes they've spotted on other subreddits — it's fashionable for Redditors to perceive themselves as lone philosophers in a sea of undeveloped minds. A subreddit for "open debate" starts with a question about where to find a debate about gun control in which people use "actual arguments" rather than acting "like five-year-olds." On Twitter, a search for the hashtag #logic is full of posts that extol, with cult-like fervor, the power of "objectivity" and "intellectual honesty" rather than feelings or experiences as the true tools of cognition. These calls are used to elevate status by aligning oneself with the purity of reason, which, if only those with false beliefs would listen, would bring them into an apprehension of truth. Declaring oneself on the side of logic sets up an implicit divide between the rational self and the irrational others — it requires at least a notional opponent.

The spirit of sites like Kialo and Qallout is one of reformist zeal, like the temperance movement: where most online arguing is rude and undisciplined, and easily veers into abuse and hate speech, the sites

offering debate rather than argument promise to advance the human race through etiquette and rigorous logic, which will eliminate wrong or harmful beliefs through informed dialogue. But logical argumentation rarely makes people change their minds; neither does exposure to facts.

In a 2016 article, researchers at Cornell analyzed data from Reddit's ChangeMyView community, where users propose a thesis and invite others to debate. While the results showed that some tactics are better than others — using different words from those used by the original poster in order to shift the frame of the discussion; using specific examples; using more tentative phrasing rather than speaking with a show of certainty — the instances of the original poster actually changing their view were discouragingly few. Because Twitter is a public space, there is a perception that any statement made there should be open to challenge. Not being "open to debate" is an accusation that can exhaust members of marginalized groups, who are disproportionately called upon to defend statements about their experience. I live in Canada, where we are still struggling with the "truth" step in efforts to bring truth and reconciliation into relations between settlers and Indigenous peoples. Debates between Indigenous activists and settlers reluctant to revise the status quo haven't felt like avenues to truth, because they tend to waste time on the premise that we live in a post-racial society — racism has been fixed, so boil water advisories on reserves, substandard housing and health care, crushing suicide rates, and an ongoing epidemic of apprehension of Indigenous children by the foster care system either aren't real, or aren't the consequence of racism. "Logic" is often invoked as an argument for discounting differences in experience in favor of an abstract notion of equality.

Just as anonymity allows users to try out opinions they're not comfortable voicing in their offline worlds — ideas can be more extreme because repercussions for socially unacceptable opinions are limited — the invocation of open debate in service of truth lets users attempt to cover their prejudices and bad faith with a veneer of dispassion. Further, we know that logic has little to do with how people actually process information, especially when it comes to the kinds of beliefs we would describe as "debatable." The topic I raised on Kialo, for instance — about whether the work of artists accused of abuse should be removed from cultural institutions — would have made much more sense with emotional context from the #MeToo movement.

Under the right circumstances, debate is fun. The very word calls up an image of a hazy dorm room at three in the morning, when every high undergraduate thinks they're on the cusp of finally solving the big questions. It's exciting to encounter ideas you've never heard before, and to imagine what it feels like to be from another family or another part of the country, where the things you take for granted seem outlandish. The quest for self-definition requires some trial and error, and other people can help us test our beliefs by pushing us to formalize the arguments that underwrite them. Or we might be persuaded into a new camp, adopting beliefs on topics we hadn't even thought about before.

For all the talk of universality, it's the poddish nature of these discussions that makes them feel vital — making some progress towards elucidating what we think, and therefore who we are, in small groups of people who can become our friends. Debate in this sense is about intimacy rather than persuasion, a demonstration of trust: It's easy to take mutual respect for granted when there's nothing to disagree about, but a genuinely respectful relationship can accommodate disagreement. By respecting one another as debate partners, we become colleagues and collaborators in the pursuit of truth. We also inflate each others' egos by conferring the status of philosopher on one another; two 18-year-olds who've read a chapter apiece of Plato's Republic can make each other feel like cutting-edge intellectuals.

Inhabiting the platforms we share online can feel like walking down a dorm-room hall — some people are debating, but others are working, playing, talking, or flirting, and the intimacy we feel can be more persuasive than argument. At its best, social media allows us to see what other people care about. The consensual eavesdropping that Twitter or Instagram allow isn't about testing one's beliefs through logic, but it can offer a window onto other people's worlds. Watching the clash of opinions can be much less instructive than listening to people who share a similar worldview and set of experiences talk freely to each other.

In his 2010 The Honor Code: How Moral Revolutions Happen, philosopher Kwame Anthony Appiah shows that arguments are not what change people's minds on moral questions — honor is. The end of dueling, or Chinese foot-binding, or the Atlantic slave trade, did not come about, Appiah writes, because of new or more convincing arguments — the arguments against these practices had been in place, sometimes for centuries, before most people were turned against them.

What changed was the "honor world" — the group of people who understand and acknowledge the same codes of behavior. Dueling was illegal before it came to seem dishonorable, in part because a newly created popular press brought the aristocracy's honor code into discussion in lower class circles. This exposure to ridicule or mimicry put a new complexion on a practice that had persisted despite all logical argument against it.

If debate doesn't actually change minds, the rhetorical power of social media networks may work best as a way to insist on a broadening of our honor worlds. In the behavior of social media users posting under their real names, identity — contrary to logic-proponents' assumptions — may be among the strongest persuasive tools. If an honor world is about acknowledging the same codes of behavior, an expanding sense of one's world can bring unquestioned values or practices into sharp relief. Most Canadians, for instance, would not consider it honorable to rob someone of their land or to break a treaty. Debate, in its formal and informal manifestations, is generally conceived as a force for good — indeed, as one of the great hallmarks of civilization. This is partly because it is viewed as the alternative to physical violence as a way of solving disputes. But argument as an intellectual contest may also have the effect of favoring a contestant who does not necessarily have right on their side. Winning an argument may mean bringing forward a true and good thesis, but it may also mean persuading one's judges of something untrue through force of personality or canny rhetorical stratagems. If a consensus view emerges, it may have everything to do with who is participating, who is judged trustworthy, and how much skin is in the game. But debate or physical violence aren't the only options for finding a way to live together despite our differences, or for finding out who we are and what we believe.

It's possible for digital interactions to enlarge our honor worlds by bringing us into closer contact with one another. As novels propose moral arguments through character development, digital spaces are best designed not for debating universals, but for developing our capacity to identify through difference. Interacting with a wide range of people with differing worldviews and experiences in digital spaces means more subconscious absorption of alternatives to the life we know. The idea of "debate" imposes an adversarial framework on online interactions, as well as privileging logic as a tool of discovery.

Adapted from Real Life Magazine

3. Seeing Is Believing
What's so bad about buying followers?

Photography, as Susan Sontag famously pointed out, has long been seen as a form of evidence. That spirit seems to animate the trend — spreading and evolving since summer 2017 — of posting "Instagram vs. real life" diptychs that demonstrate how photos, side by side, can become evidence against themselves. Popular in the wellness community, these show food or physiques, spectacularly camera-ready on one side and quotidian on the other. One may depict a brightly colored, Instagram-ready smoothie versus the swampy-hued but nutritious one a user claims to actually prefer in "real life." Another may show photos of the user taken moments apart to highlight how different one can look depending on how they prepare themselves for the camera.

Sometimes, these images are intended to be humorously self-deprecating — a sight gag capitalizing on the discrepancy between the expectation and the event. Occasionally, they're unkind, but for the most part, these images are earnest rather than shaming or funny. That is, they have a different valence from the recent "If you don't love me/you don't deserve me" two-panel Twitter meme. On the Instagram images, the accompanying captions often denounce superficiality and strategic image manipulation and emphasize the value of embracing rather than concealing imperfections. The pairings seem intended as PSAs to remind us that much of what we see on the platform is fake, and that we should be wary of how readily we suspend disbelief and get sucked in to the world of aspirational illusion. They seem a knowing alternative to the stylized images they try to debunk. But should we be corrected for having taken pleasure in visual subterfuge? Is stylized relatability any less contrived? Even the "more real" and supposedly unaffected images are themselves their own kind of image filter, evidence of a stylized performance of authenticity — and an effective one at that. Situated within a steady stream of aggressively beautiful images, the contrasting averageness in the diptychs becomes eye-catching: Their intent may be to critique the platform, but they can't escape replicating its logic. Casual spontaneity is often as elaborately constructed as Instagram's more polished images. Earlier this year, Leandra Medine Cohen, the founder of the lifestyle blog Man Repeller (1.9 million Instagram followers), posted "How to Take a Good Instagram Photo: A Theory," in which she admits as much. "The paradox, of course," she writes, "is that we know (inherently at this point) how much effort might go into a

selfie, but we're willing to accept the pretend sheen of ease." But enjoying that pretense of apparent spontaneity doesn't necessarily mean we've collectively lost all grasp of the truth. For their intended audiences, these images don't seem like contrived attempts to pass off stylized setups as everyday life but instead imply dedication to the aesthetic, a pure commitment to trying to influence. In its way, this is as "authentic" as any document that purports to capture unvarnished reality. For influencers, authenticity tends to be bound up with aspiration: an image is "true" if it captures and triggers desire, even if the image is carefully and even deceptively constructed. The feeling it inspires in the midst of scrolling is what matters. They draw on the ambiguity between what is real and what is possible. And after all, what could be more inauthentic than an image from an influencer that fails at seeming influential? Being liked, capturing attention, connecting with an audience: on Instagram, these incentives are not a corruption of reality but the basis of it. So a post whose strategies for garnering attention are legible conveys something essential about the "facts" of the moment that begat it. Traits like spontaneity, vulnerability, and beauty are as "real," by Instagram's standards, as the attention they get in being effectively signified. Instagram teaches users to decode and navigate these sorts of "deceptions" on their own terms, which is a large part of what makes it compelling to use.

A kind of vertigo ensues if we try to assess lifestyle-oriented images in terms of their level of truth. Instagram is consumed not as bona fide reality but a hyperreality, in which representations refer to other representations, not some supposed truth outside the app. There is no natural beauty, just "natural" beauty. No candid shots, just shots that read as "candid" by the code of conventions that effective influencers have mastered — demonstrating that mastery over the conventions is how one establishes one's influence. There is no "reality" against which to measure the particular beauty or mood or lifestyle an image is designed to evoke except itself. Using something faked, edited, misleading, or out of context to attract attention isn't the platform's problem but its point. There is no "fake news" on Instagram. But there are fake audiences. There's no telling how many of Instagram's 800 million users are bots; the only estimates of the number of fake accounts (8 percent as of 2015) come from the platform itself, though independent analysts have suggested bots could make up closer to 30 percent of total accounts. While the company does shadow-ban insubordinate users and

delete some bots, it has not launched a large-scale effort to purge them since the "Instagram rapture" of 2014, in which millions of bots were deleted for the sake of preserving "genuine interactions." After the rapture, Instagram received thousands of pleas from despondent users begging to have their cherished ghosts back.

As the New York Times laid bare in its January investigation of bot accounts, social media users can readily buy followers to artificially inflate their metrics in hopes of seeming more popular or influential. In some cases, bots are a threat to democracy, but the platform for such conspiracies has never been Instagram. For the price of a lunch out, any Instagram user can acquire 1,000 bot followers overnight, purchased from online distributors. Also for sale, though at a higher price point, are blue verification badges and access to automated systems that feign coordinated enthusiasm for your post (some Instagrammers form "pods" to organize flurries of likes and comments to a similar end).

These tactics have been subject to even more condemnation than "fake" images on Instagram, yet they could be defended on similar terms. Augmenting images is central to Instagram's appeal; why would follower counts be any different? For users, their objective reality may be less important than the overall aspirational fantasy they support — follower counts are just another detail in which to pleasurably suspend disbelief. So why wouldn't you tweak it the same way you might adjust the contrast? From an advertiser's point of view, though, fake follower counts are less a matter of one person's authentic aspirational fantasy than fraud. These metrics are the bedrock "reality" upon which the platform's influencer economy is built; threats to it are threats to revenue all along the chain. Instagram has a rule against "deceiving" users, but it is enforced by cracking down on bots, not Photoshop.

Among influencers, the practice of buying followers is essentially cooking the books. If follower counts become unreliable as an index of influence, influencers could lose negotiating leverage with sponsors. To protect the apparent integrity of the metrics, buying followers or gaming algorithms must be made to seem taboo. Accordingly, influencers are known to condemn and condescend to peers with inflated metrics. "It's not so much outrage as people pity you," one career influencer confides of those who buy followers. "It's like people who pay for all the drinks at the bar just to feel like they have friends. It's sad." And recently, the aggregator Bloglovin' — a platform which, like Instagram, connects influencers to wider audiences — sent an especially blunt email to its

users about the impact fake followers have on their bottom line, imploring them not to purchase them. The email tried moral appeals ("Let's be part of the solution to stop this cycle and move to a place where honesty is more precious than follower count"), incentives ("we also reward genuine influencers with bigger + better campaign opportunities"), and threats ("we constantly monitor influencer's data for suspicious activity and we take corrective action").

Brands have started to seize upon tools for determining the legitimacy of one's audience and are relying on different engagement metrics that are harder to fake. Yet there is still something delicious about a sizable follower count, and something real to be gained from having one. Even if it is losing currency with advertisers, the perceived value of followers still operates on other users. Instagram legitimacy — in the sense of being popular — rides on it, which makes it a prerequisite to fulfilling certain ambitions. For many professions, especially those that depend on an individual's networking skills, a respectable social media presence is de rigueur. The difference between having 500 followers and 1,500 could be enough to garner attention, secure a job interview, validate your work for those who need another form of confirmation. It can provide the kind of slight edge for which people have long paid marketers. The optics of a high audience number can still function as a form of due diligence in trying to represent one's best self by any means necessary. To say fake followers are inauthentic rings closely to the critique of the application of makeup as inauthentic, as Danah Boyd observes. Shaming the buying of bots feels petty and besides the point, like shaming someone's contour or Botox.

The alternative to buying Instagram legitimacy ostensibly lies in being a "good" Instagram user: dedicating time, money, and emotional energy to the pursuit of editing, posting, hashtagging, engaging with other users' content. This changes Instagram use from a fun diversion to an obligatory chore. Yet even if you submit to this regimen, you may not see proportionate rewards. The app's algorithms prioritize established rather than fledgling accounts, populating its highly visible "explore" feed with dispiritingly uniform images that have already been well-liked. Pictures of puppies and ice cream cones, stylish young women on eternal vacation, pneumatic workout selfies, lattes — professional influencers and casual users alike draw repeatedly from the same array of reliable options. It's no coincidence that buying followers accelerated after Instagram stopped showing posts chronologically and began

ranking them algorithmically. Algorithmic sorting suggests that the only way into the closed feedback loop that assures that the attention-rich get richer is to cheat. Given this intrinsic unfairness, buying followers seems reasonable, maybe even relatable. It's very "real" to try to solve an annoying problem with money. What could be more human than seeking shortcuts around unfairly remunerated labor? By saving users on-app work, buying followers could even be interpreted as a more efficient way to be "authentic" in another of its popular meanings: "I am living an offline life."

Buying followers can alleviate hassle, but it entails embracing the paradox of all counterfeiting: coveting a currency whose legitimacy you are in the process of undermining. When people buy followers, they are sabotaging a system to which they are simultaneously capitulating. Buying followers is believing in them. On Instagram, authenticity is inseparable from ambiguity, as "real" and "fake" constantly fold into each other under the pressures of its attention economy. Competition and professionalization end up contending with spontaneity as the markers of "realness," contorting the way users represent themselves and interpret other's posts. This is clear from "finsta" — a contraction of "fake instagram" — accounts, with double-digit followers and unedited, inside-joke-y images. These are commonly understood to be secret or private places to be more "real" and have fun outside the pressures associated with their real-name Instagram identities. But when "real Instagram" profiles are meticulously staged and "fake" ones reflect the unguarded self, it suggests the uselessness of the fake-real binary for addressing our conflictedness about identity and the multiple forms it takes.

Even "finsta" is subject to its own code of behaviors and as vulnerable to becoming contrived as regular Instagram. What then? A finsta-finsta? And a finsta-finsta-finsta? The need for escape becomes for ever more recursive, and the illusion of total control over one's image ever more elusive. And yet this pursuit of authenticity is what ultimately makes the app compelling. It at least gives you something to do to try to "be real": post more, scroll more, create more accounts. Influencers stake their claim on the platform by navigating that process, holding out the promise that the most perfectly realized version of yourself still aspires to become something more.

Adapted from Real Life Magazine