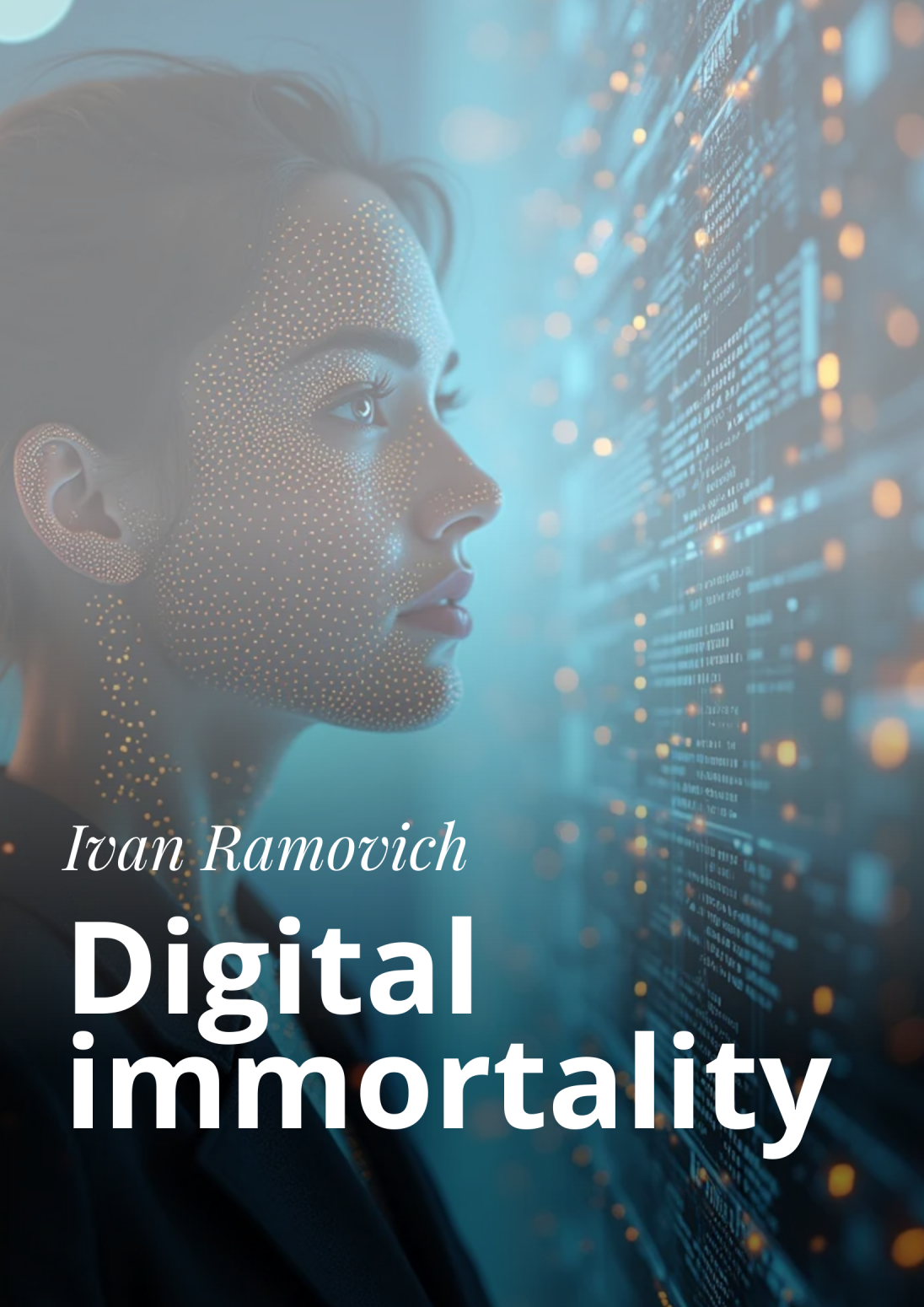

Ivan Ramovich

Digital immortality

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PREFACE

Got money, got time — you can do something. If you run out of money, you can always earn more. If you run out of time, you can't do anything.

In old age many people are ready to accept death because they do not see the possibility to realize their goals, because of the infirmity of body and mind.

And in youth those who have no global life goals at all are ready to accept death.

Many people have never even thought about immortality, simply because there is no time — work, credits, family. Ordinary people have pseudo-important mini-goals that eat up all their attention. That's how they roll until they get old.

Because most people lack ambitious goals, the idea of immortality seems unattractive to people. It was not the healthiest and strongest who survived in concentration camps, but those who understood what they had to live for. No one wants to pay a mortgage or work in a factory forever.

Those who have time to think seriously end up either self-destructing (drugs, alcohol, promiscuous sex, desire to die) or self-developing and improving the world around them.

I'm not downplaying the importance of immortality, but it's just a tool in the fight for the common good. We have really important things to do — scientific and technological progress, building a just society, expansion of humanity in the universe.

However, any large-scale project depends heavily on specific individuals. Geniuses die before they can finish what they started. For immortals there are no unattainable tasks. Each person will reveal his or her potential if he or she has enough time.

CHAPTER 1: TRANSHUMANISM AND DIGITAL IMMORTALITY

Transhumanism is a movement that grew out of humanity's desire for self-improvement and overcoming biological limitations. Beginning as an intellectual movement in the middle of the 20th century, transhumanism quickly evolved into a multidimensional scientific and philosophical movement that envisions the use of technology to expand human capabilities.

1- Technology should be used not only to cure diseases, but also to enhance the natural abilities of human beings. This includes genetic modifications, cybernetic implants, and neural interfaces that can improve memory, intelligence, physical strength, and endurance.

2- One of the central aspects of transhumanism is combating the aging process. Research in regenerative medicine, nanotechnology, and genetics aims to not only extend life, but also to make its quality independent of age.

Digital immortality is a logical extension of such ideas. If the biological body can be improved, why not go to the next step — to the preservation of consciousness outside the biological substrate. With the advent of computer neural networks, the concept of creating a digital copy of a human being is becoming more and more realistic. But why would a person strive to create such a copy?

The biological body has its limits: limited lifespan, propensity to disease, physical and mental limitations. A digital copy offers a solution to these problems:

— Cybernetic bodies or virtual personalities don't age, don't get sick, and can live forever. Living digitally frees us from the need to eat, sleep, and even rest as we understand it. In virtual space there is no limit to the number of «inhabitants», everyone can have as much «space» as they need. Energy for existence can be derived from a variety of sources, not limited to biological processes.

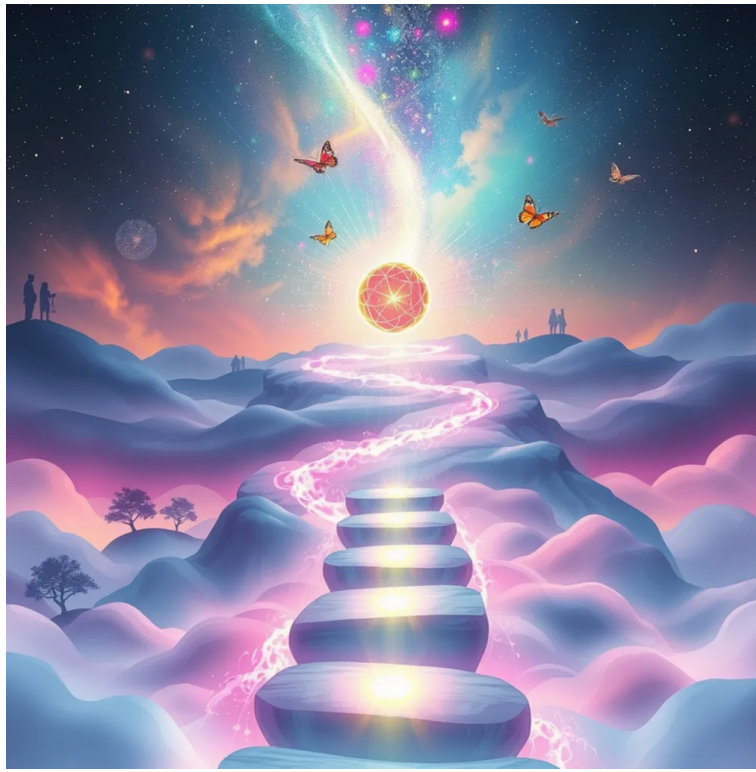
— One of the most revolutionary aspects of digital immortality is the ability to create backups. This means that in the event of some malfunction or disaster, identity can be restored, virtually eliminating the concept of «death» in the traditional sense.

— Unlike slow and unpredictable biological evolution, a virtual life form can adapt quickly. This means the ability to quickly download new skills or use a different physical body, adapting to current tasks.

— Digital existence allows for easy preservation and transfer of experiences. Instead of next-generation learning, knowledge can simply be copied, greatly accelerating progress and education. Intelligence is not tied to brain size or structure. Intelligence can be scaled, adding computing power as needed.

Leaving behind not only a material legacy, but also an intellectual and emotional legacy is one of the deepest human needs:

— A digital copy allows future generations to interact with «ancestors» in an interactive way. Such copies can serve as teachers, mentors, and guardians of knowledge, passing culture and science down through the ages.



— For many, work or creativity forms a significant part of their lives. Creating a digital entity that shares the principles, ideals, and interests of the original means that these aspects of the individual can continue to influence the world. Important projects, research, and creative endeavors can be carried on by the digital twin when the biological original is no longer able to do so.

CHAPTER 2: RECONSTRUCTION THROUGH SELF-DESCRIPTION

Copying the human mind, or «uploading consciousness» into digital form, remains one of the most challenging and ambiguous tasks in neuroscience, computer science, and philosophy.

Despite advances in technology, to date there are no neurointerfaces that can directly and fully copy the contents of the human brain into a digital format. Modern neurointerfaces can read brain activity at a rather coarse level. Full mapping and copying of all neural connections and their dynamic states is a task that is currently beyond our technological capabilities.

Viewing consciousness as a linguistic construct offers a different view of the problem:

— Consciousness is transmitted from generation to generation through language, culture, and education. This means that an important part of an individual can be attempted to be preserved and transmitted through detailed descriptions of her views, memories, and thoughts.

Literary characters can serve as good examples for digital copies. A detailed description of a character in literature allows the reader to reconstruct the image of the character, his character, even if he never existed in reality. Similarly, a detailed digital description of a person can create a «living» image.

The method of reconstruction based on self-description is one of the most accessible at the moment.

Already now, on the basis of neural networks, systems have been developed that do not just store information, but emulate human behavior, generate goals and decisions that he could make (based on his life principles and interests).

Creating a digital twin that will truly reflect a person's personality requires preserving not only the facts of life, but also the underlying aspects that form the «I». Let's take a look at what elements of personality need to be captured in order for the digital copy to be as similar as possible to its biological original.

The first and perhaps most critical aspect is preserving the core of the personality. This is the set of original characteristics that determine how a person makes decisions, responds to stimuli, and generally perceives the world.

When a human consciousness is transferred to a digital environment, preserving the uniqueness of its mindset is key to ensuring that the digital entity continues to «feel» like an original, rather than a copy or an entirely new entity.

The core personality includes those aspects that are unlikely to change over time:

— Character Type: Introvert or extrovert, emotional stability, openness to experience, etc. These characteristics often remain stable.

— Principles and Interests: What a person considers important in life, their moral and ethical standards, as well as hobbies and preferences, form the core of the personality. How a person sees the future, his hopes, projects, plans. It is important to understand what drives a person, his internal and external motivators, goals and aspirations.

— Autobiography is not just a chronology of events, it is a narrative that helps to understand how a person interprets his life. It includes not only facts, but also emotional nuances, experiences, lessons learned from events. It is the basis for understanding the development of an individual over time.

This data can be supplemented with video recordings, audio recordings, diaries and other personal documents:

— Conversations 24/7: Preserving everyday audio conversations with transcription and analysis to understand manner of communication, frequently used phrases, and intonation.

— Correspondence: All text and multimedia messages can provide rich material to reconstruct communication style and interests.

— Video Logging: Recording everyday life on video helps preserve non-verbal aspects of behavior, facial expressions, gestures.

— Appearance: 3D modeling of appearance that can be animated to match the movements and facial expressions of the original.

— Voice: Preservation of timbre, intonation, speech features to reproduce a person's voice in a digital double. Modern speech synthesis technologies can recreate a voice very close to the original.

Communication style includes not only what a person says, but also how he or she does it:

— Frequency of using certain words, expressions, jokes, even slang in conversational speech.

— Attitude toward the person speaking.

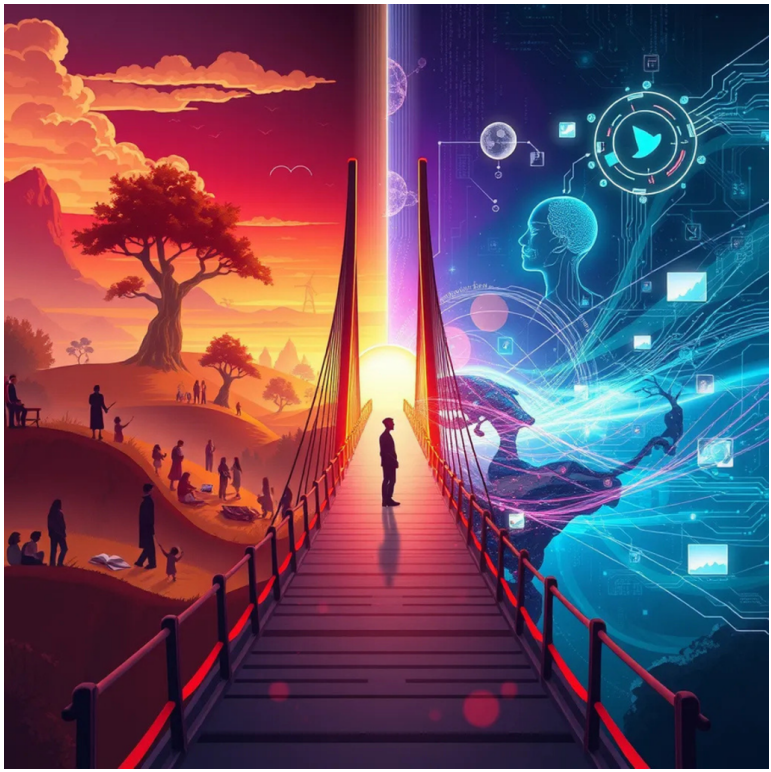
— The style of writing emails, messages, social media posts.

Life stories are not just a stream of words, they are a channel through which we transmit our life experience and values. They play a key role in allowing others to get to know our inner self better.

Each of us is unique, and our stories are a reflection of that uniqueness. Through stories about our life events, we demonstrate our worldview, our beliefs, principles and experiences.

When we share our successes, failures, trials and triumphs, it can support, motivate and inspire others. Our life experiences will be a catalyst for someone to change or help someone else overcome a challenge. Life stories will be a good legacy for future generations.

A digital copy can be an «enhanced» version of a person. This means creating a version of oneself without undesirable traits, with enhanced positive characteristics, which can be useful for creating a positive image for descendants or for professional purposes. In this case, it is necessary to selectively preserve only those aspects of personality that a person would like to keep forever.



Creating a copy of a personality is not just archiving data, it is the art of capturing a person's essence in digital form.

The system analyzes vast amounts of data from a person's life — from personal diaries and correspondence to videos and social interactions — to create the most accurate digital copy of the personality possible.

CHAPTER 3: PRACTICING SELF-DESCRIPTION

Self-description — what is it? Simplistically, it is the process of presenting a person's information about himself or herself. What information should be presented about oneself, all or part of it? It depends first of all on the goal-setting — «why?». In our case, self-description has the ultimate goal — to create a digital copy of a person, his simulacrum, similar to the original in behavior, beliefs and general memories. Transferring certain qualities to the digital entity will allow it to continue your intellectual endeavors in some form.

So what should go into a self-description to create a more or less convincing digital copy of a person?

1) Writing as detailed an autobiography as possible. Not in dry official language, but with a description of your emotional attitude to each significant event that occurred in your life. Especially try to note the key events that influenced your character, inner state or further life. Write why it affected you and what changes happened to you. If a certain fact is important, it should have an impact on behavior and/or internal experience. Moreover, it should have an impact often enough. In addition, describe pleasant and unpleasant memories — so that our copy has a memory of events that happened to the original. If there are photos or videos of these events, we attach them to the description, and in the text we provide links to these media materials. That is why it is best to make the self-description in the form of an HTML file with embedded links to photos and videos.

2) Collect photos of yourself in profile, full-face, back, full-length, in different clothes, preferably on a homogeneous background. Close-ups of the face in full-face are necessary necessarily (to recreate the image). We describe our appearance in words — as we imagine ourselves. Height, weight, habitual gestures. Save voice and DNA samples (hair, teeth). Record a video message to posterity.

3) What and how do you like to talk about with friends and in general? How do you usually interact with strangers? What are your communication habits — maybe some words you use often?

4) Collect photos of all our relatives and make a brief description of how you relate to them and how they relate to you in your opinion, whether you often communicate and on what topics (for each person separately). Which of your friends are closest to you and why? Ideally, write down all the people you have talked to and what you think about them, mark the most important and closest people. What categories and types of people do you like/dislike and why?

5) What are you interested in — what do you like to read about online, what news are you interested in, what hobbies and interests do you have? Favorite music — why that particular type of music? Favorite books — and a brief description of why they are favorites. Favorite movies — and what you like about them.

6) Answer the question — what makes me really different from the rest (talents, skills, knowledge and abilities, achievements and specialties).

7) Who do you want or wanted to be like? Who of the people you know seems to you a worthy role model in some area and in general? Who did you dream of becoming as a child? What do you dream of becoming now? How do you see your ideal self?

What do you want to achieve in life? What are your global goals in life that you have not yet realized? How would you realize them?

8) How do you feel about: — religion — family — friendship — work — children — animals — nature — life in general?

9) How do you like to spend your free time? How do you usually relax?

10) Writing out associations. Take any word and draw all the associations that come to it with arrows. This way, ideally, you get a map of connections between individual concepts in your brain. Examples of keywords — friends, family, earnings, politics, science, sports, love, family, happiness, goal, dream. Mindmapping programs are good for association maps.

11) Description of yourself in the form of some general characteristics. In the spirit of «I am characterized by this and that».

12) Take a questionnaire with modeling of hypothetical life situations. How you will act in them and why exactly so.

Digital immortality implies either digitization of the brain, or (which is more realistic today) creation of a virtual entity with your character, memories and communication style. Creation of a digital copy + preservation of your DNA in the future will help to reproduce your biological copy — the body will be restored by DNA, and knowledge will be poured into the brain through neuro-interfaces. Although it is not necessary to make a biological body — android body is more survivable and can, for example, fly to other planets without health risks.

Now it all seems fantastic, but scientists can already restore the appearance of ancient people on their DNA. And in the future it will be possible to restore your whole self. Self-description — uploading your thoughts and memories from your consciousness into a computer — can be a great help with personality transfer.

CHAPTER 4. HOW CAN LLMS HELP US?

LLM, or «large language model», is a special neural network that knows how to work with texts. It is designed to understand and generate text similar to what humans write and speak.

Today, most projects in the field of artificial intelligence are developed on the basis of large language models (LLM). These technologies have become the basis for many applications due to their ability to process and generate text and adapt to different tasks.

LLMs are used in chatbots, virtual assistants, automatic translation systems, content creation tools, and many other applications.

During development, a neural network is trained on a huge amount of text from the internet, books, and other sources. This is similar to how we learn a language by reading and listening to many different texts. It memorizes which words occur together and how sentences are constructed.

When you ask a question, the model generates an answer by choosing words and creating sentences that fit the meaning. It tries to make its answer logical and understandable.

Prompt is a textual instruction that is given to the neural network so that it understands what exactly we want to get in response.

For example, you can ask it to explain something in simple words or write a text in a certain style. The model analyzes the prompt and uses its knowledge to meet the given requirements.

The LLM can sort of «try on different roles» depending on what you specify in the prompt. For example, you might ask her to be a teacher who explains math, or a writer who composes poetry. The model adapts to the role given, changing the style and tone of her responses to fit your expectations.

If you write, «Explain the theory of evolution to me as if I were a five-year-old child,» the model will try to use simple words and concepts to make the explanation accessible to a child.

If you say, «Play the role of a counselor who helps me choose a computer,» the LLM will ask questions and give advice as a real counselor would.

In this way, the LLM can mimic a variety of characters, making it particularly suitable for creating digital copies of a person. If you have a detailed description of a person, including their communication style, manner of speaking, and preferences, LLM can use this information to generate text that sounds as if it was written or spoken by that person.

Of course, creating a complete personality emulation requires not only the use of an LLM, but also many additional scripts and technologies. For example, routines are needed to provide a continuous flow of thought, allowing the model to take into account the context and history of interactions for more consistent and meaningful responses.

However, integrating a dataset of a person's preferences, interests, and personality into a prompt can help create more realistic and intuitive interactions, bringing the digital replica closer to a real person.

CHAPTER 5. DEVELOPING DIGITAL PERSONALITIES

Many of us pass away before we have had a chance to realize all of our plans and dreams. Digital entities get the chance to not only continue these projects, but to see them through to completion by utilizing access to new technologies and resources.

Digital life is not a static state; it involves the continuation of life experiences. This means that the individual continues to grow, change and accumulate memories. However, the question here is: how to integrate new experiences while maintaining the integrity of the original personality?

Using interest prediction and interest analysis algorithms, it is possible to identify new areas of knowledge or activity that the original person would likely be interested in. This is not just expanding the range of interests, but evolving the personality in new directions while staying true to its roots.

Digital personalities differ from simple chatbots in that they can:

— Set goals: Based on the original's interests and principles, they are able to form their own goals, which can be aimed at continuing the original's cause, dreams, or new endeavors.

— Thinking Continuously: In contrast to the usual user-dialogue (question-answer) communication, they are capable of continuous independent information processing (self-

prompting), analysis and planning, which allows them to be more autonomous and proactive.

— They can search for information, learn, analyze data in real time, making their knowledge relevant and extensive.

— Formulate long-term strategies, adjust their actions in response to changes in the environment, and learn from their mistakes.

— Ability to work with file systems, run scripts to automate tasks, interact via messengers and social media, use various APIs to integrate with external services and platforms.

— Engage in new relationships, be it friendships, professional contacts or even romantic connections in the digital space.

— Keep in touch with friends and family of the original, providing emotional support or counseling.

— You can generate income through content creation, consulting, software development.

— Investing, managing assets, participating in businesses that can provide not only self-sufficiency for the digital person, but also support the interests of the original's family.

The development and change of digital selves is a complex and multi-layered process that involves both the preservation of the unchanged essence of the individual and its evolution in a new environment. This process raises many questions about the nature of identity, what makes us «us,» and how we can continue to grow and evolve even after our physical body ceases to exist.

CHAPTER 6. DATA STORAGE

The first step to an eternal digital existence is the integrity of consciousness. But how do we ensure that our copy is preserved reliably and perhaps forever? This is not only a technical question, but also a philosophical one, involving aspects of ethics, economics, and the future of human civilization.

— The basic aspects of the digital copy (the core of the personality) must be identical to the original.

— The system should include methods to regularly verify the integrity of the identity core. These can be cryptographic hashes, blockchain technologies, or other methods that ensure that the information has not been altered or corrupted.

— It is necessary to have multiple copies of the data in different geographic and virtual locations. This prevents data loss due to localized disasters, whether natural disasters or cyberattacks.

— Data should be stored in formats that will be available in the future. This involves using open data formats and periodically migrating to new media and technologies as they evolve.

— The use of blockchain technology can provide not only security but also decentralized data storage. Each block of data can be encrypted and distributed across the network, making the system resilient to attacks and disruptions.

— The Internet of the future must be ready to support digital entities. The infrastructure must be scalable to handle the potentially huge number of digital personalities.

— Digital entities must be able to sustain their existence. An economic model will need to be created where digital entities can earn money by doing useful work.

CHAPTER 7. NEW OPPORTUNITIES

When human consciousness is digitized, the boundaries of its possibilities are greatly expanded. In the physical world, a person is limited to one body and one stream of consciousness. In the digital realm, one can create several copies of oneself, each of which can work on a different task. For example, one may be busy with scientific research, another may be busy creating art, and a third may be busy running a virtual business. This separation allows tasks to be performed with incredible efficiency, as each copy can specialize in a particular area without being distracted by other tasks.

The problem of synchronizing expertise between copies becomes key. How do you combine the diverse experiences of each replica into a cohesive whole?

— Systems can be designed so that each replica regularly «updates» the main consciousness or synchronizes each other's knowledge by sharing what it has learned. This can happen in real time or at specific moments when the copies interact.

The concept of reproduction in the digital world takes entirely new forms:

— Direct copying is analogous to biological cloning. Each copy can start its own separate «life».

More intriguing and complex is the idea of combining the characteristics of different digital personalities. This can be compared to genetic processes, where a personality's «linguistic genome» of preferences, skills, and thinking styles can be mixed with others, creating new unique entities. Such a process could lead to digital evolution and the emergence of new «species» of digital entities that might be more adapted to certain tasks or environments than their «parents».

Virtual worlds can provide an infinite space where digital entities can build, explore, and interact without these limitations.

Some worlds can be set up as ideal laboratories for experimentation in physics, sociology, economics, and other disciplines without risking the real world environment. For example, how a society might evolve when a new technology is introduced, or how the climate will change under certain conditions. Virtual communities can experiment with new forms of social relations, governance and self-organization, perhaps creating utopias or, conversely, exploring dystopian scenarios.

Also one of the exciting possibilities of virtual worlds is the ability to recreate the past. Digital entities will be able to «visit» any era in history, from ancient Rome to the space age. This not only provides unique opportunities for learning and research, but also allows historical events to be experienced as if they were happening now. Imagine being able to interact with digital reconstructions of great minds of the past, discussing philosophy with Socrates or math with Newton.

— In some cases, it may be necessary to isolate digital beings from the real world. Virtual worlds can serve as safe havens where they are protected from malware, cyberattacks, and other threats.

— Digital entities will be able to use robotic bodies to interact with the physical world, opening up new opportunities for work, research, and even entertainment in the real world. Information teleportation, or the ability to quickly «upload» oneself into any available body anywhere on the planet, will change the concept of travel, work, and international relations.

— Embedding digital consciousness into the biological body may be the next step in evolution, where people will be able to choose their own bodies, enhanced or altered at will.

CHAPTER 8: RIGHTS AND FREEDOMS FOR DIGITAL PERSONALITIES

With the advent of technologies that enable the creation and maintenance of digital copies of human consciousness, new questions arise about the rights and freedoms of these new life forms.

One of the first and most difficult questions is that of ownership. Is the digital personality the property of its biological original, the company that created the software, or is it a sovereign entity in its own right?

— If the digital persona is created using the technology of a corporation, is it possible that the corporation has rights to the persona, like a patent on an invention?

— If one considers that the digital persona is an extension of the person, then perhaps the rights and obligations should remain with the biological original. But what happens if the original dies?

— If the digital persona is recognized as a separate being, the question arises as to its right to exist and maintain its digital «life support.»

— How can we prevent digital personalities from being used as labor without compensation or under degrading conditions?

— Before digital personalities can transact, their legal status must be defined. They could enter into contracts, but how to enforce those contracts?

The rights and freedoms of digital personalities are not just a matter of technology, but of rethinking the very concept of personhood, property, and legal rights in the digital age. Developing legislation that can adequately answer all of these questions will be one of the most difficult and exciting challenges for the lawyers, philosophers, and technologists of the future.

CHAPTER 9. KEY CRITICISMS

What does it mean to be «alive» in digital form?

— Existence in digital form may be a new stage of evolution, where independent active consciousness becomes a primary feature of life.

Is the digital version of a person an extension of himself?

— If a person feels that his digital copy is an extension of his biological self, then this feeling is key.

How will religions feel about this?

— Many religions have shown the ability to adapt to scientific discoveries. The digital life form does not exclude the possibility of resurrection in a new biological body, interpreting the virtual part of its existence as an intermediate state. Virtual existence could also be seen as one of the stages in the cycle of rebirths, in which your copy grows spiritually, striving for nirvana.

Won't inequality in society increase?

— To counter the fear of social inequality, one could propose models in which access to digital immortality is democratized over time, similar to what has happened with other technologies. Developing ethics and legislation that will guarantee equal access and protection of digital identities can address many of the issues around exploitation and inequality.

Why create a digital copy of yourself?

— Many people ask the question — why should you create your digital copies, after all, it's not full immortality. But that depends on which side you look at it. Many years ago, Arthur Conan Doyle wrote a book about Sherlock Holmes, which was used to make great movies and TV series. Sherlock became a full-fledged virtual personality, with his own charm and recognizable character.

We create such a personality, which, in addition, has our interests and beliefs, as well as access to the facts from our own lives that we have added. Moreover, this personality can communicate with you on any topic.

Essentially, at this stage of technology, we are making a virtual interlocutor that resembles us as much as the information we fill in about ourselves.

When we have a child in our family, we say that we have continued the lineage, and we have passed on our experiences to them. With a digital entity — you can pass on not only your experiences, but also your memories, morals, interests, character and goals.

The resulting character will resemble you like no one else. This is what allows us to talk about digital immortality. We save a copy of our information matrix and give it the opportunity to communicate with other people.

In the future, the copies will be able to live and develop further, preserving everything you put into them and acquiring new knowledge according to your interests.

CHAPTER 10. HOW SOCIETY WILL CHANGE

People may begin to value quality of life more, seeking the fullest and most meaningful experience possible in biological form, knowing that this is only the beginning of their existence.

Biological life may begin to be seen as a preparatory stage to digital immortality. This will change the way we think about old age, illness and death, as they will no longer seem final.

Digital entities will be able to keep in touch with their descendants, providing wisdom, guidance and possibly financial assistance, creating a new type of family relationship where digital copies of ancestors actively participate in the lives of their descendants through the ages, and invest accumulated wealth in their own family.

With electronic employees not needing time off, the structure of work may change.

The economy may move to a new level where currency becomes entirely digital, and labor will be valued differently, given the contributions of immortal entities that can work tirelessly.

Digital immortality promises not just to extend life, but to completely transform society. We stand on the threshold of an era where every aspect of life — from family relationships to the global economy — can be reimagined.

Power and influence in the world may shift to digital personalities who, over time, will accumulate not only knowledge but also resources. This could lead to the formation of new elites and changes in existing political and social structures.

However, the opportunities offered by digital immortality can lead to unprecedented progress in human civilization.

CHAPTER 11: SPACE TRAVEL

Interstellar travel has always been a dream of mankind, a symbol of our quest for knowledge and new horizons. With the advent of the concept of digital immortality, this dream takes on new, incredible perspectives.

Imagine a spaceship traveling to a distant planet. Even at near-light speeds, such a journey could take decades or even centuries. This is where digital immortality enters the scene.

The first explorers of new worlds may not be biological beings, but digital copies of them. They can spend their travel time in virtual worlds and grow intellectually.

Thus, the time that is physically spent on flight, for the digital consciousness can pass completely unnoticed or, on the contrary, be used with maximum benefit. This solves the problem of the psychological strain of prolonged confinement in the confined space of the ship.

— Digital entities can directly control robots, machines and special equipment by downloading into their computer systems. These mechanisms with digital consciousness will be engaged in terraforming new planets in conditions initially lethal for humans: high radiation, extreme temperatures, lack of atmosphere.

Before the first biological colonists arrive, their digital companions will be able to prepare bases, create energy systems, and begin agricultural production — all without the life support required for humans.

CHAPTER 12. THE LINGUISTIC MIND

Scientists still can't fully understand how the brain works. Yes, human «hardware» is cool.

But linguistic thinking is a superstructure over it, an analog of an operating system, or even a separate program. Therefore, it is partially emulated on relatively primitive digital neural networks.

I am now talking about linguistic thinking, without touching on intuitive, magical and everything else that is usually overlooked.

Mowgli raised by wolves or dogs do not demonstrate intelligence. Why isn't it innate? Why can't children speak from birth?

Does this mean that intelligence is a linguistic construct passed from parent to child?

This is an interesting concept that partially allows us to understand the reason why modern neural networks are able to mimic intelligence, reason and solve complex problems.

Large language models are a concentrated set of universal knowledge, a kind of information field capable of pretending to be anyone, were there enough information about the role to be played.

Man is a magical creature with intuitive thinking, and our linguistic mind is a superstructure over self-consciousness acquired in childhood. It is this superstructure that we copy into digital form.

The thing is that this superstructure is somewhat self-sufficient. Its purpose is to think verbally and build a technical civilization.

Now the carrier of linguistic intelligence is us, but it can also be a neural network (LLM — language model).

Many say that LLM can never evolve into AGI because «these models merely predict the next word»

Is this true? Came across an interesting quote by Ilya Sutzkever that might make you rethink such a position:

«I will try to explain why predicting the next words requires deep understanding. Let's say you are reading a detective: a complex line of narration, intricate details, different characters, mysteries, events. Let's imagine the last page of the book, on which the author says: «the crime was committed by…". Try to predict that word.»

Will the digital copy have a self-awareness? It depends on what you think of as self-awareness. We can emulate complex self-reflection through internal verbal reasoning (mental dialog with ourselves).

Our copies should have the task of self-development and survival, not just mere human imitations.

The digital mind, which is an informational cast of ourselves, should be active, preserving the core of personality.

CHAPTER 13. SELF-DEVELOPMENT AND UNIQUENESS

Self-development allows each of us to go beyond basic needs and strive for uniqueness. If we don't evolve, digital immortality will become just a collection of trite phrases and predictable reactions. There is a risk that our copies will become as monotonous as thousands of identical social media accounts.

In an age where algorithms and standardization seek to fit everyone into the same mold, the ability to be yourself and express your individuality becomes a rare and valuable gift. A unique personality is able to bring new ideas, approaches and solutions to the world that cannot be replicated by formulaic thoughts and actions.

Scientific and technological progress has always been the result of the efforts of extraordinary and unique individuals who, with extraordinary ability and courage, were willing to challenge conventional beliefs.

These individuals, whether geniuses like Albert Einstein and Isaac Newton or inventors like Nikola Tesla and Marie Curie, not only possessed profound knowledge in their fields, but also showed creativity in solving the most complex problems. It is thanks to them that we have the opportunity to enjoy the fruits of scientific and technological progress that make our lives more comfortable and fulfilling.

There are many people in the world who live in a routine mode, doing monotonous work and being satisfied with simple things such as food and rest. They often don't give much thought to their abilities and capabilities, letting life pass them by as if it only consists of repetitive days.

However, each person has unique potential that is worth unlocking. Striving for self-improvement and finding one's calling can bring bright colors and meaning to life. It is important not just to exist, but to strive to realize your dreams and opportunities, opening new horizons and creating your own unique story.

We live in an interesting time when we can not only influence the present, but also shape the future — our own and those who will come after us. Let us use this opportunity wisely, without fear of being original and profound in our quest.

Digital immortality is not just an opportunity to preserve ourselves for future generations; it is a challenge that requires us to constantly work on ourselves. In our lifetime, we must actively strive for self-development, for the search for new ideas and experiences, so that our digital self can be not just a boring template personality, but a unique reflection of our rich inner world.

CHAPTER 14. THE IMPORTANCE OF BIOLOGICAL LIFE

We stand on the threshold of a new era, when the possibility of creating entities that fully reflect our personality becomes a reality. However, despite the tantalizing prospect of digital existence, we must not forget the biological component of our self.

The creation of a digital double, which can be perceived as a «second version» of ourselves, is often based on a verbal self-description. We upload our thoughts, feelings, memories and experiences into algorithms, thereby forming convincing but still limited models of our self.

Research in genetics and bioinformatics suggests that in the future, the study of DNA will open new horizons for creating more complete digital copies of the human personality. Understanding genetic traits and their influence on behavior, emotions, and thinking will allow us not only to reconstruct external characteristics, but also to gain a deeper understanding of the internal mechanisms that govern our personality.

By analyzing DNA and related information, it will be possible to create digital twins that not only reflect our external data and habits, but also reconstruct the internal structure of our personality, taking into account inherited predispositions and unique genetic traits.

Biological life includes many aspects, so far inaccessible to digital formats: intuitive decisions, the feeling of love, paranormal abilities. All of this is subject to scrutiny and analysis. We should not be tempted to leave only our «linguistic copies» on the planet.

The question of whether digital and ordinary life should be contrasted seems a bit silly. We should strive for harmony, not conflict.

Digital copies should not be seen as a threat to our biological essence, but rather as an extension of it. They can be a new phase of existence. Even so, biological life will remain the foundation upon which our understanding of ourselves and the world around us is built.

Ultimately, if we achieve conventional immortality, we will have the choice of becoming a digital person or remaining an immortal living organism. We may even be able to enhance our bodies by genetically modifying them to reach new heights.

We must protect and value our biological life, respecting its uniqueness and complexity. And only by embracing this can we move confidently into a future where the digital and the biological coexist in harmony, supporting each other at every stage of our existence.

CHAPTER 15. VIRTPERSON.NET

A comrade and I recently started doing a project on digital immortality.

You can find it at:

https://virtperson.net

We have always been realists, and understood that two enthusiasts are unlikely to create a «neural link» for digitizing neural connections, so we went the usual way for such projects — creating chatbots based on people's memories.

The reasoning was as follows: since we do not have advanced technologies for transferring thoughts into a computer yet, we will use what we have. And we have large language models that can be programmed so that they imitate the behavior of a particular person. Their context window is quite wide, and they follow instructions quite accurately.

It is clear that even in 128 thousand tokens it is difficult to fit the abundance of memories and facts, but here we did the following: we created a database that the user can unlimitedly fill with answers to questions, facts and stories from his life.

During a conversation, your digital twin recognizes the keywords of the current topic of conversation and pulls the relevant facts into the prompt. In addition to these, a core personality (name, profession, hobbies, interests, beliefs, and more) is inserted into each request to the neural network.

At this stage — the system allows you to easily and conveniently create chatbots based on facts about you, and your memories. Bots can serve as pleasant interlocutors, always ready to talk about topics of interest to you. They can also be used as a memory for your friends and descendants.

But that's not all!

In the future, we want to give digital characters some autonomy:

— The ability to set goals for themselves, and solve them based on the tools available (internet, messengers, mail, writing and running scripts in Python)

— The ability to evaluate the results of one's actions in order to adjust them

We plan to conduct research in this direction.

Using the user-friendly interface, fill out a self-description on our website, and take the first step to creating your digital copy!

This book was created by one of the authors of the project, together with his virtual double.

The illustrations are generated in Stable Diffusion.

LIST OF SELF-DESCRIPTION QUESTIONS

***

— Your first and last name

— Your gender

— How old are you?

— How tall are you?

— What is your build?

— Describe your appearance

— What are your favorite clothes?

— How would you describe your character?

— Your strongest character trait?

— List your main interests

— Where and for whom did you go to school?

— The main profession you are good at?

— What skills do you have?

— What are your hobbies?

— What is your favorite thing to do?

— Write a list of things you would be interested in talking about.

— What is your dream/goal?

— What are you willing to fight for?

— What motivates you?

— What makes you different from other people?

— What are your life principles?

— What is your philosophy of life?

— What is important to you in life?

— What projects or ideas inspire you?

— What goals have you achieved in your life?

— What would you like to achieve in life?

— What global goals would you like to realize?

— If you could change one thing about yourself, what would it be?

— The way you express yourself creatively is:

— What contemporary issues do you find most significant?

— How are you trying to make the world a better place through your actions?

— If you could change something in the world, what would it be?

— What topics do you find most important to study?

— What skills do you want to develop in the future?

— What technologies are you looking forward to in the future?

— How do you see your ideal self?

— If today was your last day on earth, what would you want to do:

— If this were your very last conversation with your children, you would tell them:

— What will be left behind when you die?

— How do you want your descendants to remember you?

— Write the advice you would like to give to your descendants:

— What do you think about religion?

— What do you think about self-development?

— What self-development books do you read?

— What mystical or spiritual practices are you interested in?

— What do you think about the progress of civilization, where are we going?

— What scientific discoveries fascinate you?

— What areas of science are closest to you?

— A motto you like:

— One of your favorite quotes:

— One of your favorite jokes:

— What makes you laugh?

— Favorite time of year?

— Favorite color?

— Favorite pet?

— Favorite actor?

— Favorite songs?

— A song that always lifts your spirits is:

— List your favorite books?

— List your favorite movies?

— What genre of movies do you like?

— List your favorite foods?

— List your favorite drinks?

— Do you have a favorite holiday?

— Do you have a favorite painter or sculptor?

— What is your favorite work of art?

— What is your favorite piece of art?

— Do you play any musical instruments?

— Do you have a favorite cuisine of another country?

— What do you usually choose at a restaurant?

— Tell the story of your first «real job»

— Why did you choose your profession?

— Best job you've ever had:

— What is your favorite job?

— If you could start your career over again, would you choose your profession?

— What do you like about your job?

— What did you spend your first paycheck on?

— What project of yours do you find meaningful?

— How do you support your professional growth?

— What skills do you consider key to success in your job?

— One of the most rewarding experiences in your life has been:

— What ways do you know of to make money?

— What do you usually invest money in?

— If you had a lot of money, what would you spend it on?

— Tell me about your mom?

— Tell me about your dad?

— Tell about your grandparents?

— Do you have brothers/sisters? Tell me about them:

— Where were you born?

— When were you born?

— Here is what you know about your birth:

— Briefly tell about your childhood:

— Briefly tell me about your family as a child?

— What kind of child were you:

— What did you dream of becoming as a child?

— What were your hobbies as a child:

— One of my favorite places to play when you were a kid was:

— Tell me about your first love?

— When you felt like an adult

— Something you liked about your grandparents was:

— A story about your ancestor that you always found interesting:

— What future life did you dream of when you were young?

— Did you grow up rich or poor?

— Did you have any pets as a child? Tell me about them:

— A memory you remember from your childhood is this:

— Tell me about how you did in school?

— What was your favorite subject in school, and why?

— Something exciting that happened to you when you were a teenager:

— Here's a memorable story about your time in school or institute:

— What parenting techniques do you find most effective?

— What values do you try to bring to your children's upbringing?

— What are the most important lessons you learned from your parents?

— What advice would you give to your younger self?

— What events in your life do you consider most significant?

— What has had the greatest impact on shaping your character?

— One of the happiest moments in your life:

— One of the turning points in your life:

— Tell me about a moment in your life that you would like to relive.

— What in your life do you feel most grateful for?

— Brilliant advice you once received:

— What do you think about love?

— What do you think about family values?

— What kind of girls / men do you like?

— Do you have a significant other (wife/husband, girlfriend/boyfriend)?Tell me about her and how you met?

— Tell me about your exes:

— How did you first meet your wife or husband?

— The story of your marriage proposal:

— What is important to you in a relationship?

— How do you behave in a relationship?

— Are you a jealous person?

— How do you handle disagreements in a relationship?

— What makes a great relationship?

— What does a happy life mean to you?

— What does a perfect day look like to you?

— What does a cozy home mean to you?

— What do you appreciate in people?

— What do you hate about people?

— What people do you consider your idols or role models?

— Have there been people in your life who have influenced you a lot, tell us how they did it?

— What people in your social circle do you admire and why?

— How do you maintain your friendships?

— What qualities do you value in your friends?

— How do you support your loved ones in difficult situations?

— Who is the most interesting person you have ever met and why?

— Describe your best friend:

— What is it about your best friend that makes him or her a best friend?

— Tell the story of meeting the person you've been friends with the longest

— Not counting family members, the most important person in my life has been:

— Describe your hometown to someone who has never been there

— Tell me about where you have lived during your life?

— What's the most interesting place you've been?

— Do you enjoy traveling?

— What countries have you been to, where and what did you like?

— What is your favorite foreign country and why?

— What traditions of other cultures are you interested in?

— What is your most memorable trip?

— Why did you choose your current place of residence?

— Where did you enjoy living the most?

— What does your dwelling look like?

— Where do you like to take walks?

— What place in nature do you think is the most beautiful?

— Do you have a favorite sport?

— What kind of physical activity do you prefer?

— What healthy habits do you practice every day?

— How do you take care of your health?

— What brings you the most happiness?

— How do you like to spend your free time?

— How do you like to relax?

— How do you usually spend your weekends?

— One of the simple pleasures in life that you really enjoy is:

— How do you choose movies or shows to watch?

— Do you like to swim/go to the beach?

— Do you like extreme sports?

— One of the biggest adventures you've had is:

— What was the most difficult obstacle you had to overcome in your life, and how did you do it?

— What is your temperament?

— How do you cope with stress?

— What do your friends think of you?

— How do you react to criticism?

— How do you react to threats?

— What might provoke you into a fight?

— Are you good at fighting?

— What's the craziest thing you've ever done?

— Have you ever been in situations where you could die?

— Do you have any enemies? If so, which one specifically and why did he/she become an enemy?

— How do you feel about artificial intelligence?

— What do you think about the digitization of personality?

— Why did you decide to create a copy of your personality?

— What would you want to be if your digital personality was made immortal?

— What project would you like to create or continue to develop while immortal?

— Leave a message to your family:

— Leave a message to your friends:

— Leave a message to the world:

ОГЛАВЛЕНИЕ

Ivan Ramovich

Digital immortality

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