

Thinking about the  
Unknowable Future



ISSN: 1061-1428 (Print) 1557-7848 (Online) Journal homepage: <https://www.tandfonline.com/loi/mrss20>

## Race for the Future

A.G. Asmolov

To cite this article: A.G. Asmolov (2018) Race for the Future, Russian Social Science Review, 59:6, 484-492, DOI: [10.1080/10611428.2018.1547054](https://doi.org/10.1080/10611428.2018.1547054)

To link to this article: <https://doi.org/10.1080/10611428.2018.1547054>



Published online: 29 Nov 2018.



Submit your article to this journal [↗](#)



Article views: 6



View Crossmark data [↗](#)



A.G. ASMOLOV

## Race for the Future

### “... Now Here Comes What’s Next”

*The article discusses the risks and effects of predicting the future. It describes the competition between two images of the future that can be found in current predictions. We discuss the question of changing our basic conceptions about the essence of human nature, the most important properties and qualities of people in connection with the onset of the current era of uncertainty, and the complexity and diversity of the human experience. We describe the context that surrounds the practice of predicting the future, namely the transition from the world of SPOD to the world of VUCA. The author reminds the designers of the future of the importance of correlating futurist programs with the expectations and motivational attitudes of the different social strata in Russian society. The author reviews current educational policy, and he describes the general features of the education reforms of recent decades and the risks created by their shortcomings. The article outlines the conditions for constructing a promising and human-centric model of 21st-century education (“the garden of dignity culture”) for “complex free people.”*

---

English translation © 2018 Taylor & Francis Group, LLC, from the Russian text © 2017 “Povolzhskii pedagogicheskii poisk.” “Gonki za budushchim: ‘... i vot nastupilo potom,’” *Povolzhskii pedagogicheskii poisk*, 2017, no. 2, pp. 60–66. Translated by Kenneth Cargill. Translation reprinted from *Russian Education and Society*, vol. 60, no. 5. doi: [10.1080/10609393.2018.1495017](https://doi.org/10.1080/10609393.2018.1495017).

Aleksandr Grigorievich Asmolov, doctor of psychological sciences, professor, and Member of the Russian Academy of Education, head of the Personality Psychology Department, School of Psychology, Lomonosov Moscow State University, and Director of the Federal Institute of Educational Development, Moscow, Russia; email: [asmolov.a@firo.ru](mailto:asmolov.a@firo.ru)

Russian society, just like many other nations around the world, is undergoing a special process: It is racing for the future. The more predictions about the future that I look at, including predictions about education in the twenty-first century, the more often I recall the paradoxical title of the recent book by the famous animation director Garri Bardin, *Now Here Comes What's Next* [I vot nastupilo potom].

Though it may be tempting to make predictions, just like prophecies, they can be risky. It is no coincidence that, as in Vladimir Vysotsky's "Song of the Prophetic Cassandra" [Pesnya o veshchey Kassandre], "In all ages people burn the clairvoyants, just like the eyewitnesses." Predicting the future is also very risky because, despite the unpredictability of the future and perhaps because of it, it can trigger the effect of the "self-fulfilling prophecy." (It is true that utopias and manifestos are more likely to spawn empires and totalitarian regimes rather than radiant sun cities).

The "self-fulfilling prophecy" is only one of the effects of making predictions as a way of shaping the future. If we fail to take account of these prophecies, any "objective predictions" can topple over like a house of cards.

Another effect, which, in my opinion, we should never lose sight of during the "race for the future" is the effect from the psychology of perception that is known as conflicting fields of vision (when one eye sees, e.g., a brown spot, whereas the other eye sees one that is blue). Therefore, when you look at the Russia of 2017 and build the forecasts of the future, you must realize that how the country is historically perceived is subject to the effect of such conflicting fields of vision, which happens when one image is perceived, and then another competing image superimposes itself over the initial perception.

At least two images of the future that represent two different historical mindsets compete with each other to determine how Russia is perceived in 2017. The first of these images harkens back the ideological triad of the Minister of Education of the Russian Empire, Count Sergey Uvarov: "Orthodoxy–Autocracy–Nationality." The other image is associated with another triad ("Liberty–Equality–Fraternity"), which recalls the French Revolution of the eighteenth century.

Each of these "triads," which stand for different sign systems and competing images about how the future should be constructed, contain their own truths, and they are associated with their own leaders advocating change and their own incomplete, mixed projects for the future of Russia. **Without understanding these multi-vector mindsets, any futurist programs that are primarily based on technology will remain benign wishes, because they will run into conflict with the expectations and motivated mindsets of various social and age groups within the country.**

These observations do not just apply to Russia. Before our very eyes, one after another, various programs and strategies that try to give their own answers to the challenges of uncertainty, complexity, and diversity resulting from our era of dynamic changes are gaining momentum.

Of the current set of forward-looking conceptions that compete with each other to impose different visions on the twenty-first century (including “the image of man,” “the image of reason,” “the image of the cognitive revolution,” “the image of education,” the images of the technological and industrial revolutions), one of them, **the metaphor of “the inescapability of a strange world,” most fully conveys the sense of the cascade of changes that are taking place in the world.**

Apocalyptic pronouncements concerning the future of man and mankind predominate in all of these images of the future and “stories of tomorrow”<sup>1</sup> (see, e.g., the works of Ray Kurzweil, who was one of the authors to coin the concept of the technological singularity and to predict the future merger of man with computers [Kurzweil 2005]). The future of education, which promises to successfully prepare students for a changing world, is associated with outfitting the “Man of the Future” with a set of key twenty-first century skills and competencies, including creative skills. At the same time, we cannot rule out the fact that, just as in medieval Great Britain, “sheep devoured men.” Flexible algorithms and platforms will outperform people and turn them into a “useless class,” a species that has been left behind by evolution.

Given all the different features found in these competing pictures of the future, these action plans with time horizons of between 5 and 100 years, they nevertheless possess a number of common features. First, the “dissonance syndrome” that afflicts modern people underlies all of the various models of the future. We have constant trouble keeping up with the frantic pace of everyday life, and we fall out of sync with time and with ourselves.

In one of my papers, I wrote that “the personal and cognitive dissonance that results from trying to keep up with modernity manifests itself in the fact that a contemporary person, no matter how much he or she tries to master modernity, inevitably fails to keep up with the pace of modern life. Modern people experience dissonance with time, nonlinearity, and the immensity of the present. This syndrome has just as profound an impact on the person and humanity as the fears of a ‘nonlinear future’” (Nazaretyan 2015). These effects include, first of all, the classic phenomenon of stress (general adaptation syndrome), a scientific concept that has become widely accepted in everyday discourse largely thanks to popular works by the Canadian endocrinologist Hans Selye. Also, the neurosis of modernity should be mentioned, which is discussed by Karen Horney in her classic work, *The Neurotic Personality of Our Time* (Horney 2008; Asmolov 2015).

Secondly, the challenges of the “strange” world (the challenges of uncertainty, complexity, diversity) are often interpreted as destructive challenges of “disorder,” “chaos,” and “future shock” (Toffler 2008), which impede the ability of individuals and humanity in general to adapt to environmental changes as well as the ability of other biological species to adapt given the transformations to the ecological, anthropogenic, social, and psychological spheres. Consequently, the accelerated pace of evolution and the fact that it is no longer a gradual process, which has been brought about by the flow of human activities (and consciousness), has resulted in the growth of tendencies toward regression, a desire to return to the past, and “escape from freedom” (Fromm 1995) as well as anxiety in the face of the uncertainty and unpredictability of the present and the future.

Third, predictions about the future are being made in light of the technological, industrial, and cognitive revolutions that are changing lifestyles and humanity’s conceptions of the world (see, e.g., Kurtsveyl [Kurzweil] 2015; Shvab [Schwab] 2016; and Harari 2016). As a result of these revolutions, the “future shock” that futurist Alvin Toffler warned about at the turn of the twenty-first century is becoming “present shock,” and the experience of change is becoming a norm in modern life.

In the face of growing instability, humanity is confronted with the challenge of developing an effective action plan that is able to function within the ever-changing global environment. In particular, it is seeking to develop rational and economically viable ways that socio-economic actors can use to cope with various changes, which we can interpret as the transition away from the world of SPOD (S = “steady”; P = “predictable”; O = “ordinary”; D = “definite”) and toward the world of VUCA (V = “volatility”; U = “uncertainty”; C = “complexity”; A = “ambiguity”). In the contradictory world of VUCA, a priority is placed on adaptive future-oriented concepts that seek to cultivate the adaptive potential of individuals living in the twenty-first century by expanding their set of so-called twenty-first century competencies and skills, including creative skills (see, e.g., Covey 1989).<sup>2</sup> In addition, this future-centric agenda has increasingly called for talent strategies where one’s tolerance of change and uncertainty is emphasized as the key ingredient in effective careers and organizational success. The present world of VUCA, and not just the future one, is also prompting a drive toward the revision of various adaptive models of educational practices in different countries around the world. It is motivating actors in education to overcome the systemic education crisis by moving away from a paradigm based on teaching “knowledge, skills, and abilities” to a “school of uncertainty” and a flexible, individual-centered educational paradigm that favors one’s all-round development and

continuing self-motivated learning (see, e.g., Asmolov 2015; Freydl, Byalik, and Trilling [Trilling, Fadel, and Bialik] 2015).

Given these events, in recent decades there have been several large-scale attempts in Russia to “reform education from above.” Any new managerial project that seeks to predict the future of the education system as a potential resource for implementing positive changes in the economic life of the country has little chance of success without reflecting on the history of these previous top-down projects. In the context of modern educational policy, ever-increasing numbers of social actors are being mobilized to support returning to past educational models. Some representatives of administrative elites are increasingly expressing their desire to institute “closed models of education befitting a great power,” etc. And the risks that current and future projects for reforming education will be misperceived are dramatically increasing.

In this regard, I consider it necessary (given that various education futurologists are receptive to the idea of undergoing another round of “education modernization from above”) to identify and objectively evaluate some obvious risks of how society might perceive these projects and what implications they may have.

The following have been characteristics of all previous attempts to modernize education:

- Ignoring the expectations and motivations of the population when conducting social reforms.
- An overreliance on technocratic (“technological” and “organizational-economic”) models of modernization that fail to take into account the socio-economic and psychological effects of education (education as a factor responsible for the social stratification, social mobility, and social consolidation (or segregation) of the population; and education as a source of images about the future for new generations of teenagers and young people as well as the basis for the formation of cultural identity, etc.).
- Reducing education reforms to narrow-focus, single-sector programs that ignore the specific role that education plays in a modern-day socio-economic environment of multilateral networking as well as the fact that education has lost its status as the only institution that socializes young people due to the emergence of other socialization institutions.

All of these considerations create the following risks:

1. The risk that education will be turned into a scapegoat to explain incidents of social tension resulting from the increasing stratification of

society; the exacerbation of xenophobia, ethnophobia, liberalophobia, and witch-hunting; and the growth in the number of supporters of the country's "special path" [osobyi put'] and opponents of any "innovations."

2. The risk that educational development scenarios will be reduced to adaptive and compensatory strategies consisting of making technological upgrades to the current educational system that neuter various long-term education plans (2018–2024, 2018–2030, etc.) by transforming them into retrospective models before they can be discussed and adopted. (You could compare plans to technologically upgrade education with the prospect of turning a Zaporozhets into a Mercedes.)

I will speak about this risk separately. I clearly understand that it is hardly appropriate to say that these "action plan" scenarios that operate according to a strictly managerial logic have consciously chosen a formal framework or even philosophy of predicting the future. Nevertheless, I consider it necessary to note that the framework that is used to construct the future largely determines the choice of goals, priorities, and the language that is used to describe the project.

Two points of support are accepted as frameworks by default:

- The theory of viewing education through the prism of human capital concepts, according to which people are mainly thought of as "resources," "means," "cadres," and "tools" that the government can use to solve economic problems.
- The twenty-first century "performance-based philosophy" (the philosophy of training individuals in key skills (competencies) that has been proposed by the business community), including "creative thinking skills."

All of the other general theories for framing the future, including classic theories of modeling sustainable development that draw upon Jay Forrester's world (system) dynamics concept (Forrester 2006), Alvin Toffler's "Third Wave" theory (Toffler 2008), Ray Kurzweil's prediction of the future singularity (Kurtsveyl [Kurzweil] 2015; Kurzweil 2005) and, most importantly, the philosophy of instability of Ilya Prigogine (Prigozhin [Prigogine] 1986, 1991, 2001, and 2005), are often ignored by various programs for framing the future, including both the images of education as well as the images of the twenty-first century person.

This is especially sad, **because it is hardly possible to build long-term models of education for the twenty-first century without considering the philosophy of instability, which has highlighted the main trends of**

**modernity, including the challenges of uncertainty, complexity, and diversity. It is also impossible without taking into account the ongoing cognitive revolution and without analyzing the predictions and anticipated outcomes of the Fourth Industrial Revolution.**

However, I do not want to conclude my discussion of the races for the future on such a sad note.

Science, however much it is traumatized by the archaic ideology of the “escape from freedom,” is the key to many potential paths of future development. If the “atom” was the main symbol of the hard sciences in the twentieth century, then such symbols as the “brain” and “reason” have replaced it in the twenty-first century. And such further symbols as “consciousness” and the “person who is prepared for change” may supersede them in turn. The state of funding for research in the fields of brain sciences, neurocognitive sciences, and neurotechnological sciences in the first decade of the twenty-first century looks impressive:

- Connectome (2005–2015, U.S., funding of USD 100 million) (Connectome)
- Blue Brain (2005–2015, Switzerland, funding of EUR 100 million) (Blue Brain)
- Human Brain Project (2012–2022, European Commission of the European Union, funding of EUR 1.19 billion) (Human Brain Project)
- BRAIN Initiative (2014–2025, U.S. government, funding of USD 127 million) (BRAIN Initiative)
- Brainnetome (2011–2015, China, funding of CNY 26 million) (Brainnetome).

Without analyzing the ongoing changes in outlook, without understanding the reasons why the series of symbols that stand for thinking have changed over time and continue to change (from “atom” to “brain” and “mind” to finally “consciousness” ...), you cannot make any meaningful predictions about the future.

### **“... Now here comes what’s next”**

However, I consider myself to be an evolutionary optimist. And therefore I will conclude my essay with a passage from Voltaire’s philosophical novel *Candide, or Optimism* [*Candide, ou l’Optimisme*], in which the philosopher Pangloss, who firmly believes in Leibniz’s proof that we live in the best of all possible worlds, tells his disciple Candide:



“All these events are inextricably linked in this best of all possible worlds. For if you had not been booted out of a magnificent castle, [...] if you had not been brought before the Inquisition; if you had not wandered on foot all over America; [...] if you had not lost all your sheep from that fine country, El Dorado, you would not be here eating lemon preserves and pistachio nuts.”

Candide replies, “Well said, but we must cultivate our garden.”

The same is true of us: **To avoid letting our future slip into the past, we too must cultivate our garden: the dignity culture garden; the garden of modernity for a fearless generation of complex and free people, who are ready for the changes that are taking place in reality; and the garden of versatile education for the twenty-first century.**

## Notes

1. See, for example: Yu.N. Kharari [Yuval Noah Harari], *Sapiens. Kratkaya istoriya chelovechestva* [Sapiens: A Brief History of Humankind], (Moscow: Sindbad, 2016); Y.N. Harari, *Homo Deus: A Brief History of Tomorrow*, (London: Harvill Secker, 2016); Kurtsveyl, R. [Ray Kurzweil], *Evolutsiya razuma* [How to Create a Mind: The Secret of Human Thought Revealed], (Moscow: Eksmo, 2015); K. Shvab [Klaus Schwab], *Chetvertaya promyshlennaya revolyutsiya* [The Fourth Industrial Revolution], (Moscow: Eksmo, 2016); E. Laslo [Ervin László], *Makrosvig: K ustoychivosti mira kursom peremen* [Macrosift: Navigating the Transformation to a Sustainable World], (Moscow: Taydeks Ko, 2004); Ch. Freydl, M. Byalik, and B. Trilling [Bernie Trilling, Charles Fadel, and Maya Bialik], *Chetyrekhmernoye obrazovaniye: Kompetentsii, kotorye nuzhny dlya uspekha* [Four-dimensional Education: The Competencies Learners Need to Succeed], (Moscow: Tsentr obrazovatel'nykh razrabotok Moskovskoy shkoly upravleniya SKOLKOVO, 2015); A. Assman [Aleida Assmann], *Raspalas' svyaz' vremen? Vzlet i padeniye temporal'nogo rezhima* [Transformations of the Modern Time Regime], (Moscow: Novoye literaturnoye obozreniye, 2017).

2. *The 7 Habits of Highly Effective People: Restoring the Character Ethic* is a popular book by the American business consultant Stephen Covey about personal development that is mostly based on the principles of humanistic psychology.

## Bibliography

- Assman, A. [Aleida Assmann]. *Raspalas' svyaz' vremen? Vzlet i padeniye temporal'nogo rezhima* [Transformations of the Modern Time Regime]. Translated by B. Khlebnikova and D. Timofeyeva. Moscow: Novoye literaturnoye obozreniye, 2017.
- Asmolov, A.G. “Psikhologiya sovremennosti: vyzovy neopredelennosti, slozhnosti i raznoobraziya.” *Psikhologicheskiye issledovaniya*, 2015, vol. 8, no. 40, p. 1. <http://psystudy.ru>.
- Bardin, G. *I vot nastupilo potom...* Vserossiyskaya gosudarstvennaya biblioteka inostrannoy literatury im. M. I. Rudomino, 2013.

- Volter [Voltaire]. *Kandid, ili optimizm* [Voltaire, ou l'Optimisme]. *Volter. Izbrannye sochineniya*. Moscow: Ripol Klassik, 1997.
- Kurtsveyl, R. [Ray Kurzweil]. *Evolyuksiya razuma* [How to Create a Mind: The Secret of Human Thought Revealed] Moscow: Eksmo, 2015.
- Laslo, E. [Ervin László]. *Makrosdvig: K ustoychivosti mira kursom peremen* [Macroshift: Navigating the Transformation to a Sustainable World]. Moscow: Taydeks Ko, 2004.
- Nazaretyan, A.P. *Nelineynoye budushcheye. Megaistoriya, sinergetika, kul'turnaya antropologiya i psikhologiya v global'nom prognozirovani*. Moscow: Argamak-media, 2015.
- Prigozhin, I., and Stengers, I. [Ilya Prigogine and Isabelle Stengers]. *Poryadok iz khaosa. Novyy dialog cheloveka s prirodoy*. [Order Out of Chaos: Man's New Dialogue with Nature]. Moscow: Progress, 1986.
- Prigozhin, I. [Ilya Prigogine]. *Konets opredelennosti*. [The End of Certainty]. Izhevsk: RKhD, 2001.
- Prigozhin, I. [Ilya Prigogine]. *Opredeleno li budushcheye* [Is Future Given?]. Izhevsk: IKI, 2005.
- Prigozhin, I. [Ilya Prigogine]. "Filosofiya nestabil'nosti" [The Philosophy of Instability]. *Voprosy filosofii*, 1991, no. 6, pp. 46–52.
- Toffler, E. [Alvin Toffler]. *Shok budushchego* [Future Shock]. Moscow: AST, 2008.
- Forrester, Dzh. [Jay Forrester]. *Mirovaya dinamika* [World Dynamics]. Moscow: AST, 2006.
- Freydl Ch., Byalik M., and Trilling B [Bernie Trilling, Charles Fadel, and Maya Bialik]. *Chetyrekhmernoye obrazovaniye: Kompetentsii, kotorye nuzhny dlya uspekha* [Four-dimensional Education: The Competencies Learners Need to Succeed]. Moscow: Tsentr obrazovatel'nykh razrabotok Moskovskoy shkoly upravleniya SKOLKOVO, 2015. Orig. Fadel, C., Bialik, M., & Trilling, B. (2015). Four-dimensional education: The competencies learners need to succeed. Center for Curriculum Redesign.
- Fromm, E. [Erich Fromm]. *Begstvo ot svobody*. [Escape from Freedom]. Moscow: Progress, 1995.
- Kharari, Yu.N. [Yuval Noah Harari], *Sapiens. Kratkaya istoriya chelovechestva* [Sapiens: A Brief History of Humankind]. Moscow: Sindbad, 2016.
- Khorni, K. [Karen Horney]. *Neeroticheskaya lichnost' nashego vremeni* [The Neurotic Personality of Our Time]. Moscow: Akademicheskii proyekt, 2008.
- Shvab, K. [Klaus Schwab]. *Chetvertaya promyshlennaya revolyutsiya* [The Fourth Industrial Revolution]. Moscow: Eksmo, 2016.
- "BRAIN Initiative. (Brain Research through Advancing Innovative Neurotechnologies)." <https://www.braininitiative.nih.gov/index.htm>.
- "Brainnetome." <http://www.brainnetome.org/en>.
- "Connectome: Human Connectome Project (funded by National Institute of Health)." <http://www.humanconnectomeproject.org/about/scanner>.
- Covey, S.R. *Seven Habits of Highly Effective People: Restoring the Character Ethic*. New York: Simon and Schuster, 1989.
- Harari, Y.N. *Homo Deus: A Brief History of Tomorrow*. London: Harvill Secker, 2016.
- "Human Brain Project (co-funded by European Union)." <https://www.humanbrainproject.eu/en>.
- Kurzweil, Ray. *The Singularity is Near: When Humans Transcend Biology*. New York: Penguin Group, 2005.
- "The Blue Brain Project. A Swiss Brain Initiative." <http://bluebrain.epfl.ch/page-59952-en.html>.