

# SURFING THE FUTURE OF EDUCATION

WHAT SKILLS, ATTITUDES AND KNOWLEDGE SHOULD  
THE EDUCATIONAL SYSTEM AIM TO DEVELOP  
TO ADDRESS FUTURE NEEDS

ZOFIA BEDNARCZYK, LOES DAMHOF, KACPER NOSARZEWSKI



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## PREFACE FROM THE PRESIDENT

### Dear Reader!

It makes me very proud to present this new report published by our Polish Society for Futures Studies, and that for three important reasons.

Firstly, it stems from our continuous cooperation with Hanze University of Applied Sciences in Groningen, Netherlands: a new, shining beacon of ambitious research and development in Futures Literacy. Our cooperation with Hanze UAS Futures Lab started in 2016 with a masterclass in strategic foresight conducted by our expert for Dutch honors education leaders. Thanks to dedication and professionalism of dr Loes Damhof from Hanze, it has grown to be one of the most successful and rewarding relationships in the history of Polish Society for Futures Studies.

Secondly, this publication is a proof of a growing interest into futures studies in Poland that we have witnessed and stimulated over the last years. It brought us together with Institute of Educational Studies to co-host the „Surfing the Future of Education“ workshop. My thanks go to dr Piotr Stankiewicz, director of this respectable research institute. It is a great pleasure to work with you.

Last but not least, the theme of this project - future of education in Poland - is a fantastic complement to our current efforts to take off with a new project targeted at schoolchildren in Poland: „One lesson about the future“. This innovative competency package has already drawn attention of prestigious donors and we are aiming to reach thousands of schools across Poland with our novel approach to career and personal development planning. If you would like to learn more on „One lesson about the future“ or other projects from Polish Society for Futures Studies, I invite you to [visit our website](#).

Wishing you a good read,

**Łukasz Macander**  
**President, Polish Society for Futures Studies**



# INTRODUCTION

Curricula are built upon yesterday's experience and research. Although the ultimate goal of education is to prepare children for tomorrow, what they actually learn applies mostly to the past. Hence, pupils get equipped with skills that would be useful in the world that no longer exists. And, as the pace of global changes accelerates, the past becomes even more distant and unfamiliar than it was ever before.

„The fast pace of change makes it very hard to transfer experiences of one generation to another, like we used to do“ – said Piotr Stankiewicz (PhD), the director of the Educational Research Institute in his welcome speech opening the Futures Literacy workshop on the future of education. „We are thinking about the future on a daily basis when planning our everyday activities. It is time to face the future when planning education for our children“ – he continued.

In order to do so education experts and practitioners need to become more future literate. The “Surfing the future of education” workshop was a first step in that direction.

# THE WORKSHOP



The future does not exist in the present but anticipation does. The form the future takes in the present is anticipation. Thus, the integration of the later-than-now, be it a millisecond or a millennium, into the present is achieved through various kinds of anticipatory systems and processes.

**DR RIEL MILLER** HEAD OF FORESIGHT, UNESCO

## DATE AND VENUE

The workshop on the future of education took place on 17 May 2018 at the office of Educational Research Institute in Warsaw, Poland.

## ORGANIZATION

The “Surfing the future of education” Futures Literacy KnowLab was held by the Educational Research Institute in Poland. The workshop was planned and conducted in co-operation with the Polish Society for Futures Studies by the research team from the Hanze University of Applied sciences in Groningen led by Loes L. Damhof (PhD).

**The Educational Research Institute (IBE)** is an organization responsible for interdisciplinary research with regard to the functioning and effectiveness of the education system in Poland. Its main research areas include: new core curriculum and subject teaching methods, measurement and analysis of student educational achievement, psychological and pedagogical foundations of school achievement, relationship between education and the labor market, especially monitoring the situation of young people entering the labor market, lifelong learning and national qualifications framework, economic determinants of education, financing education and other broad issues concerning economics of education, teacher working conditions, working hours, professional status and competencies, institutional and legal problems concerning the education system and educational policy.

**The Hanze University of Applied Sciences Futures Lab** is the research unit led in co-operation with UNESCO by the team consisting of dr Loes Damhof, dr Lilian Eggens, Anet de Greef-Doornbos and Elles Kazemer. Its ultimate goal is introduction of futures literacy as a crucial 21st Century Skill to the academic curriculum. The team actively enhances and utilizes the UNESCO’s methodology of Futures Literacy KnowLabs and develops the tools to measure its effects on students.

**The Polish Society for Futures Studies (PTSP)** is a Polish NGO associated with The Millennium Project, world’s biggest and leading futures research network with outlets in more than 60 countries around the world. Polish So-

ciety for Futures Studies has initiated and was involved in a string of FL and Foresight methodology projects around the world, including leadership roles in research projects aimed at improving the toolbox and reliability of futures research methods. PSFS prototypes and deploys FL methods, coordinating nationwide efforts of different actors in higher education, schooling, spatial planning, policy-making, government strategy and defense sectors.

## **PARTICIPANTS**

The group of fifteen people participated in the FLKL workshop. The professionals taking part were mostly experts in education representing several influential organizations in the field. The entities represented at the event were:

- Fundacja Rozwoju Systemu Edukacji
- Instytut Badań Edukacyjnych
- Instytut Sobieskiego
- Polski komitet ds. UNESCO
- USWPS
- Uniwersytet Warszawski
- Uniwersytet Łódzki
- Fundacja Zaleskich
- Instytut Pracy i Spraw Socjalnych

# METHODOLOGICAL REMARKS



Futures of education are one of the most popular topic for futures research globally. We tend to believe that education is the solution to future challenges and that the delivery of competencies empowers the next generation to face the future in a fair, creative and empathetic way. It may only be so if we make explicit our assumptions about the future, challenge and validate them. This is what Futures Literacy is all about. Education will simply not work if we just hold on to our past visions of the future.

**ŁUKASZ MACANDER** PRESIDENT, POLISH SOCIETY FOR FUTURES STUDIES

## **WHAT IS FUTURES LITERACY?**

Futures Literacy is the capability to produce and process complex visions of the future and make sense thereof. It is the ability to effectively use the future, to take advantage of unknown and uncertain. In order to do so one has to be able to think critically and creatively, question own assumptions, use collective intelligence, and understand and embrace complexity. Futures literacy not only enhances individual planning skills and allows to detect and identify novelty in order to adapt to emergence. Its most important asset is the capability it gives to actually embrace the change. That means accepting it as it is or proactively creating the future as we want it.

## **ON THE FUTURES LITERACY KNOWLABS**

Futures Literacy KnowLabs is UNESCO's action-based methodology of confronting the future in the collective knowledge creation process. In the workshop setting participants use collective intelligence to examine own assumptions about the future and broaden their perspectives. They are clashed with divergent views and encouraged to adapt their thinking in order to offer possible solutions for the challenges of today.

FLKLabs are used as tools to test the hypotheses that increased capacity to use the future makes it easier to make sense of the world and to appreciate complexity allowing for taking advantage of changes.

## **SURFING THE FUTURE OF EDUCATION FUTURES LITERACY KNOWLAB PROCESS**

The Futures Literacy KnowLab was a collective intelligence activity that dwelled on the future of education in Poland in the year of 2045. The methodology was based on the original UNESCO framework with some experimental simplifications allowing for shortening the time of workshops. The six consecutive steps of the process were:

### **INDIVIDUAL VISIONS OF EDUCATION IN 2045**

Participants were asked to close their eyes and imagine the world as it's going to be in 2045 and their job in that new reality, assuming they are still working in the sector of education. Each person wrote down and presented to all one sentence, a headline, that best described their vision.

## **QUESTIONS ABOUT THE FUTURE**

Each of the participants noted and shared within their working groups up to ten yes or no questions related to the state of the world and their profession. The questions was supposed to be asked from the position of a person that suddenly wakes up in the world of 2045. Each working group chosen three most relevant questions.

## **SHARED VISIONS OF EDUCATION IN 2045**

On the basis of the questions asked the groups decided on the common sentences describing their visions of the future of education. Each group produced one headline representing their collective perception of education in 2045.

## **GETTING THERE**

Using the backcasting approach groups decided on and described the course of events that could actually lead to realization of their collective visions in 2045.

## **THE BROAD CONTEXT**

The working groups outlined the essential macro environmental factors that should occur in order for their scenarios to unfold as expected. They listed the factors on the canvas of the DESTEP model, that is indicating: demographic, economic, socio-cultural, technological, environmental and political dimensions.

## **DYNAMIC REFRAMING AND CONTEMPLATION**

In the final step of the process, the groups exchanged their canvas picturing macroenvironmental context of the futures they elaborated on. Each of the participants was asked to individually contemplate on the scope of change the new context would bring to the scenario his team had worked on. Then, everyone had an opportunity to discuss their insights with a person from another group.

# OBSERVATIONS



We cannot prepare ourselves for something that is unknown, but what we can do is make our and others' assumptions about the future explicit and discuss the implications these assumptions have for the present. In our work on the assumptions we will be consciously using the future to innovate the present.

**DR. LOES DAMHOF** HEAD OF HANZE UAS FUTURES LAB, THE NETHERLANDS

## INDIVIDUAL VISIONS OF THE FUTURE OF EDUCATION IN POLAND

During the workshop participants communicated their individual expectations regarding education in the future, including prevalent methods of teaching and the skills mostly needed in 2045, that should be developed. The complete list of the headlines outlining the visions with general questions they addressed can be found in the Table 1. below.

**Table 1. – The list of sentences summarizing individual visions of education in 2045**

<b>Headline:</b>	<b>Question addressed:</b>
Social skills	What is taught?
Endless self-development	How are people taught?
Intercultural literacy (in the context of one common global language and prevalent income gaps)	What is taught?
Survival in a hostile environment	What is taught?
Empathy, creative thinking and communication/ social skills (to preserve world peace)	What is taught?
Ability to synthesize knowledge (in order to use it efficiently)	What is taught?
Full-time home-based education	How are people taught?
Technological literacy and human qualities	What is taught?
Using new technologies for the good of social relations	What is taught?
Flexibility in the context of sustainable development	What is taught?
Interconnectivity of the world	What is taught?
Relax and teach	How are people taught?
Computers replace educators. Social skills the top qualities taught in primary schools	How are people taught? / What is taught?
Open-mindedness and critical thinking	What is taught?

The visions revealed in the form of the headlines mostly focused on the skills that participants expect to be most useful in the future and, hence, should be taught in 2045. The competences that were mentioned most often fell into the broad area of soft social skills. However, general skills associated with one's ability to adapt were also stated.

The statements presented were brought up mostly in the context of technological progress or social/intercultural tensions. These unveil typical frames applied to the visions of the future, namely the world of advanced technologies and the world balancing on the edge of the war.

# QUESTIONS AND SHARED VISIONS



Literacy is the competency to make sense of textual sources, that is, also to use textual sources to make plans in life and execute them. Futures Literacy is an analogous ability to learn about possible, probable or desirable futures, as they are imagined or constructed across a variety of sources in order to make better-informed decisions in the present.

**KACPER NOSARZEWSKI** FORESIGHT EXPERT, 4CF STRATEGIC FORESIGHT

## QUESTIONS ABOUT THE FUTURE

The high-tech and on the brink of war frames reappeared in the simple yes or no questions that participants declared would like to ask if waken up in 2045. The questions asked were predominantly revealing common fears concerning: general safety issues, becoming redundant because of being replaced by robots, and inferior human-to-human contacts. The questions related to the world peace, in particular, were most prevalent. They arose in each of the working groups and were discussed intensely.

The exercise also demonstrated broad scope of attitudes towards the future and the ways people are dealing with it. Most of the professionals present at the workshop concentrated on their individual futures asking predominantly self-centered questions (Do I have a boss? Do I have to work?), a few concentrated on the global issues (Is there a peace? Is there any education system?) and the rest balanced both perspectives.

The Table 2. presents the sets of three most relevant questions chosen by each of the three working groups.

**Table 2. – The most relevant questions chosen within the groups**

Group 1	Group 2	Group 3
Are we in a state of peaceful and sustainable coexistence?	Can I trust you? / Do I have an easy access to trustworthy information?	Do I know how to teach in insecure situations?
Is education organized in a system?	Can we be of use? / Does my profession still exist?	Do I know how the teaching is conducted?
Do we have a physical and direct communication?	Are humans still in charge?	Do I have skills to teach?

## SHARED VISIONS OF THE FUTURE

On the basis of the questions chosen, groups decided on the shared vision of education in 2045. The outlines of the visions can be found below.

### **„THE NOBEL PRIZE GOES TO “∞” FOR DESIGNING THE UNIVERSAL UNIVERSITY”**

In the vision of the first group, the education system will change completely up to the year 2045. Education will become utterly universal, meaning that it will be free of charge, equally and unlimitedly accessible for anyone in the world. People, no matter their location, age, gender, health, possessions, race and nationality will be able to learn whatever and whenever they want. Educational content will be developed by collective intelligence independently from the states and all of the teaching materials will be shared in the next generation of the world wide web. The teachers in that scenario will be responsible for validation of learning progress made by individuals educating themselves in the Universal University. However, teaching will be more activity related and less restricted to a role as a profession.

The course of events leading to development of the Universal University includes establishment of informal communities of learners, development of a “YouTube” like platform, emergence of new universal teaching channels, setting up a hybrid form of traditional with new way education facility and implementation of a new educational progress validation system.

The Universal University exists in decentralized world with diverse and self-regulating local societies. Universal basic income was implemented worldwide and business is willing to fund education for the good of all people. The technological progress was not as remarkable as expected, but distance learning is still possible and the access to the new generation of internet is commonly granted. The globe reached a focal point of its environmental problems. Thanks to the zero waste society, degradation of ecosystems is finally hampering.

### **“LEARN AND SHARE: INDIVIDUAL, PROBLEM-BASED AND DEMOCRATIC EDUCATION FOR ALL”**

The vision of education formulated by the second group reminds to some extent ideas stated above. It is, however, more conservative and relates to the Polish education system only. The national system of education still exists in this scenario, but has significantly evolved since 2018. Curricula are no longer filled mostly with theoretical knowledge and education became more practical

and problem-based. Moreover, each student is able to choose their individual learning path that best fits her/his talents, interests and predispositions. All types of schools are easily accessible to all youngsters regardless of their parents' incomes, which assures equal opportunities.

In order for this vision to fulfill, several changes have to take place. The members of the second group concentrated mostly on the developments within the system of education itself. Among the steps leading to their vision, they listed: public discussion on the learning priorities, professional development of polish teachers, growing prestige of teaching profession, establishment of new core curriculum in Poland, evolution from teaching large classes to small groups quality-oriented teaching and formation of "equality guardian" function within the education system.

The context of this scenario assumes business as usual future in most areas with some social and political developments. It reckons that in the course of 27 years there were no major technology-driven changes. Despite noticeable immigration, there live far less children in Poland than used to live in 2018. Poland is a democratic, modern country with secular and impartial education system. Polish people became more eco-conscious and are pursuing sustainable development. The civil society thrives and the country is less centralized than ever before. Municipalities play a major role in governance and are now responsible for distribution of the larger part of money from taxes.

### **"GET THAT NUCLEAR BLOCK STOP MELTING! — SKILLS FOR THE FUTURE"**

The third group formulated a vision of the future-oriented education based on paradigms agreed upon by the international community. The system of education in their conceptualization concentrates mostly on teaching critical thinking and developing practical skills that could be used in everyday life, which is not always easy in that scenario. The nuclear block mentioned in the headline represents individually-owned mini-nuclear plant that everyone will own in the future and should be able to repair on their own.

Despite the fears of the future declared in the exercise with questions, the third group was the only one, that actually incorporated negative events into their scenario. The course of events leading to realization of their vision of education encompasses some dramatic worldwide changes and necessary adaptations. In that scenario extreme weather events become everyday's routine.

Luckily, thanks to a youth festival on the climate change organized in 2018, societies were less in denial of ongoing changes and willing to act to prevent further deterioration. Several United Nations conferences were organized, which resulted i.a. in changing an approach to education for more future-oriented. Poland was not an exception in their incorporation. In 2038 the first institute on future-oriented research and teaching was established in Warsaw.

The state of affairs in the world of future-oriented education is complicated. On the one hand, international tensions decreased and, hence, it was possible to work out agreements regarding major global issues. The ability to reach international consensus was partly ascribable to A.I. driven decision and policy making system, that proved global unity is critical and urgent issue. On the other hand, however, due to weather related catastrophic events and rising climate migration income within societies increased dramatically leading to social tensions and revolutionary outbursts. In 2045 the future is still very uncertain and education system needs to prepare for unknown.

# THE DRUDGERY OF CHALLENGING ASSUMPTIONS



Imagine two countries back in 1988. Both were about the same in all things except that one declared a national objective of cooperating with international computer networks to connect their educational systems into an international knowledge system in order to improve education for all in their country. Now, 30 years later – today – which country would be in a better position for the emerging global knowledge economy? Today educational policymakers face the same kind of choices: to look far ahead seeking emerging educational opportunities or just make moderate innovations that appear creative.

**JEROME C. GLENN** DIRECTOR, THE MILLENNIUM PROJECT, USA

We cannot examine the future, but we can examine our assumptions about it” – said Loes Damhof when starting the workshop. The ability to question own assumptions about the future is one of the core elements of futures literacy which the Futures Literacy KnowLab methodology intends to develop. The original, extended version of the FLKL process reveals deeply hidden assumptions beyond visions of the future that participants formulate. In the simplified design employed during the workshops on the future of education, only the general assumptions on the future were challenged. How did it work?

The professionals participating in the event challenged their general assumptions about the future several times in the process. First, they confronted own imaginations of the future of education with ideas of other people. Then, asked themselves questions pertaining to the areas of uncertainties they could be not fully aware of before and were confronted with further doubts and dilemmas of others. Despite divergent visions of 2045, they had to adapt own perceptions in order to agree on the major issues describing groups’ shared future scenarios for the world and education. Finally, their imagination was challenged with changing contexts to the futures they pictured.

All these twists and turns resulted in a slight feeling of discomfort declared by a few participants at the end of the workshop. Challenging assumptions is not always easy, but it happens anyway when the future unfolds. “How you felt today is how you will feel when the future verifies your plans” – explained Kacper Nosarzewski from the PSFS. Thus, it’s better to overlook it and shape the future by today’s actions. Such a task may be difficult to accomplish as not all of the possible futures turned out bright. Some of them represent worst fears for tomorrow. However, it does not mean they should be neglected. These are the futures that need further insights and co-operation in order to be avoided. And the first step to the better tomorrow has been done.

## Polish Society for Futures Studies

Polish Society for Futures Studies has been established in 2010 by a group of economists, engineers and other professionals from all walks of expertise. Polish Society for Futures Studies is a platform for cooperation for interdisciplinary projects, supporting highest level of coordination and project management in addition to funding. In research, communication and development projects, PSFS cooperates i.a. with Hanze University of Applied Science, The Millennium Project and UNESCO.

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