

**GDI**

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INSTITUTE

ECONOMIC AND SOCIAL STUDIES

# FUTURE SKILLS

Four scenarios for the world of tomorrow

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# Preface

Dear reader,

We live in an ever-changing world, with rapid development of new technologies and a continuous flow of information. Our society faces challenges of a rarely seen scope affecting our climate, health and economy. What are the essential skills we all need to adapt and face this continuously changing environment? What kind of future awaits us? These are fundamental questions without any certain answers. They force us, however, to go back to the basics: What do we have to learn, what do we have to know in order to function in an as of yet uncertain future?

For thirty years, the Jacobs Foundation has been investing in the development of children and adolescents, both in research and in practice. It contributes to improving the framework conditions in various countries, as it does in Switzerland, so that all children can realise their potential right from the start by benefiting from learning and support opportunities and become responsible members of society. Equal education opportunities and life-long learning options are the basis of our work, which is underpinned by the findings from scientific research. These findings time and again put emphasis on the significance and importance of early childhood, the first years of life of all humans, during which the foundation for the best development possible is laid.

In the context of a strategic transition, the Jacobs Foundation has decided to assume a longer-term perspective. It asks questions about possible scenarios that could change the way we live and work in the decades to come and intends to find out, in the process, how best to prepare children and young people for the challenges they will have to face. This approach is about designing the framework conditions, particularly also in the field of education, in such a way that all children are provided with the life skills necessary for their development. This forms an essential basis for their future development in youth, adolescence and young adulthood. The goal is to enable all humans to contribute constructively to the world in the year 2050.

To this end, the Jacobs Foundation has commissioned a study with the Gottlieb Duttweiler Institute that illustrates not a linear projection of the future but several possible future scenarios and the associated skills and aptitudes humans will need in each one of them.

As coincidence would have it, this study is being published just as the global crisis caused by the COVID-19 pandemic is at its peak and fundamental questions arise on all fronts. The projections into the future show us that, independent of the scenario presented in each case, the fundamental skills such as community spirit and teamwork, flexibility and the courage to innovate and overcome failure are what define the individual and our society alike. These are the skills we urgently need and which children and young people should learn today in order to endure in an as of yet uncertain future.

We hope that you will be inspired by what you read!

A handwritten signature in blue ink, reading "P.X. Zimmerli". The signature is fluid and cursive, with the initials "P.X." clearly visible at the beginning.

Philine X. Zimmerli  
*Lead Early Childhood Programs Europe*  
Jacobs Foundation

# Synopsis

Education is intended to prepare children and young people for the future. It currently appears uncertain, however, what this future will be like. Climate change, geopolitical power shifts, the long-term impact of the coronavirus pandemic – many current trends make the future highly uncertain. Due to this unpredictability, future skills studies are very difficult, but also increasingly important.

We cope with this unpredictability by outlining four different scenarios for Switzerland in the year 2050:

- > **Collapse.** International trade is almost non-existent. Local communities are no longer integrated into national or supranational organisations and have to reorganise amidst the ruins of a globalised and industrialised world.
- > **Gig Economy Precariat.** Machines have taken over many jobs and have caused technological unemployment. Instead of switching to other sectors, the people affected turn to a new type of employment: the gig economy. As digital day labourers, they fight for rare jobs in a thoroughly commercialised world.
- > **Net Zero.** The hope to slow climate change with progress and technology has vanished. Only severe personal restrictions have an effect. The goal with the highest priority is reducing CO2 emissions to zero. How this is achieved differs from region to region. To ensure readiness for and acceptance of personal restrictions, these measures are defined as locally as possible.
- > **Fully Automated AI Luxury.** Machines have taken over many jobs previously done by people. Everyone benefits from the fruits of this labour. People can do anything, but they do not have to. This gives rise to the challenge of generating purpose in their lives and main-

taining their individual autonomy when faced with the superiority of artificial intelligence.

These scenarios are not predictions with 25% probability of becoming reality but rather end points of a space of possibility. For each of these worlds, we determine skills and qualities that are necessary to function and prosper in them. In a survey, Swiss teachers assessed to what extent these skills are taught at their schools.

The uncertain nature of the future and the heterogeneity of the four scenarios suggest that it is impossible to prepare children and young people for one specific future. The more the future deviates from the world of today, the less existing institutions and experiences can provide orientation – and the more future generations will be left to their own devices. Skills of self-determination such as self-motivation, self-efficacy and the ability to make decisions in groups are consequently important in all scenarios.

However, “Future skills” does not only mean being able to react flexibly to any potential future. It also means shaping the future. The creative freedom of society is barely acknowledged in the Western world, because latest since the end of the Cold War we have privatised the future. Social goals have become personal ambitions. This means that the future has turned into something that happens to us and we have to cope with.

To empower children and young people to create the future, the study proposes three categories of skills:

- > **“Knowing”**: To shape the future, you need to know the present. This requires basic knowledge and therefore also knowing what one does not know. In a fast-changing world, the tools to acquire new knowledge quickly are likewise important.
- > **“Wanting”**: Goals are essential to shape the future. Introspection enables reflecting on one’s own wishes and needs and expressing one’s goals better. New ideas are needed, not the feeling that “everything has already been invented” regarding society. When these new ideas are informed by communal values, everyone will benefit.
- > **“Doing”**: Concrete behaviour is necessary to reduce the discrepancy between the present and the expressed goals. This requires self-efficacy and the belief in being able to make a difference with one’s own skills. The specific implementation requires practical skills – from mechanical dexterity to organisational know-how. Finally, social skills are necessary to make decisions in the group and implement them.

Shaping the future requires new ideas that are implemented in the community. This does not require a consensus of the entire society. A highly complex world cannot be centrally organised. Small communities that try out new ideas and can learn from each other are the path to a resilient society. Children and young people can acquire the skills to experiment in small communities through practical group projects of their own choosing.

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