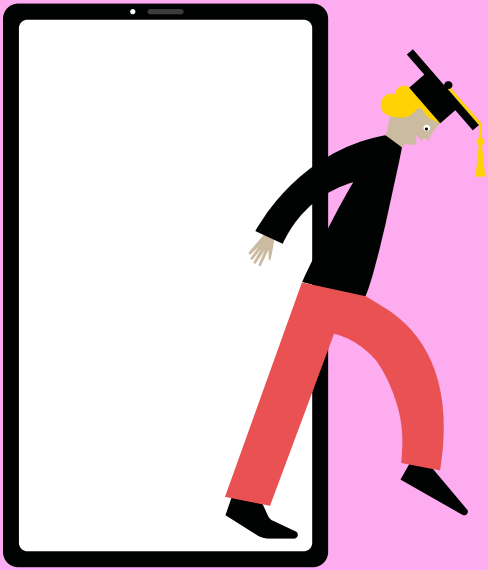
ETH zürich

Office of the President
Strategic Foresight Hub

Freedom of Choice

Linda Grob



2040 Essay Contest: **Hybrid**

SFH

A collective journey to the year 2040

During the 2022 spring semester, the Strategic Foresight Hub (SFH) of ETH Zurich invited the ETH community on a journey to the year 2040 for the second time. This year's 2040 Essay Contest encouraged the ETH community to imagine and describe the everyday life at a hybrid university in 2040.

We look at the essay through three different lenses. The journey begins with the the author's lense - the text submitted by Linda Grob (Bioinformatics Specialist at NEXUS). We then put on an illustrator's lens and look at the story through the eyes of Niels Blaesi, who created three illustrations inspired by the story. Finally, we put on the Foresight lens: first we analyze the story using the STEEP Framework and then suggest a backcasting scheme for selected aspects of the essay.

We invite you on this little journey and hope to give you playful insights into how Foresight can be used to inspire, reflect and think creatively.

This essay was selected by the SFH team. The winning essay of the public vote has been published as well.

Author’s Lens

Illustrator’s Lens

Foresight Lens

Author's Lens

The Essay

Freedom of Choice

Lost in thought, I sit in the kitchen and watch my son eat an apple. Next year he'll be 20. How time flies, I'm tempted to say. It seems like just yesterday he was taking his first steps with a cheeky smile. But then the turbulent years that lie behind us come to mind.
He was born in the middle of the corona pandemic. At the time, especially with a baby, it seemed like a privilege to work from home. How advanced it made us feel, all virtual and from a distance. Looking back, it seems almost primitive.

"Who are you working with today?" my son asks, interrupting my thoughts. "I'm going up to Angelika, the farmer, who has been joining us a lot lately, to help her with the brones. Maybe she has an eye for how we can improve the buzzers," I reply.

The brones, our bee drones, that we developed in the collaborative research team at ETH have been doing a good job – at least we had fresh food on the table more often again after years of worldwide famine. Still, they weren't perfect. They still showed a preference for certain flowers

and plants. Discovering the cause of this in simulations was difficult. Perhaps the solution will come to us by doing work on the farm.
In my mind, I drifted back again. So much had changed. Previously it would have hardly been conceivable for people to simply become part of ETH without a suitable degree.

Fortunately, things are different today. Everyone has understood that innovation can only develop to its full extent where diversity is truly lived out. Theo comes to mind, who regularly stops by to work on the whirr of the brones. As a concert pianist, he has an ear for it, and his intermezzos at the grand piano in the atrium provide a welcome break for thinking and reflection for many. I have to smile.

“What are you laughing about?“ asks my son, again snapping me into the present. “Oh. I needed to think about how nice it is to have a choice,” I reply. “Are you going to your core group today?” I ask him. He has also been working at ETH since recently completing his compulsory learning period, and like everyone else, he freely chooses his work two days a week.

The rest of the time he grows brone-compatible flowers in the botanical garden.

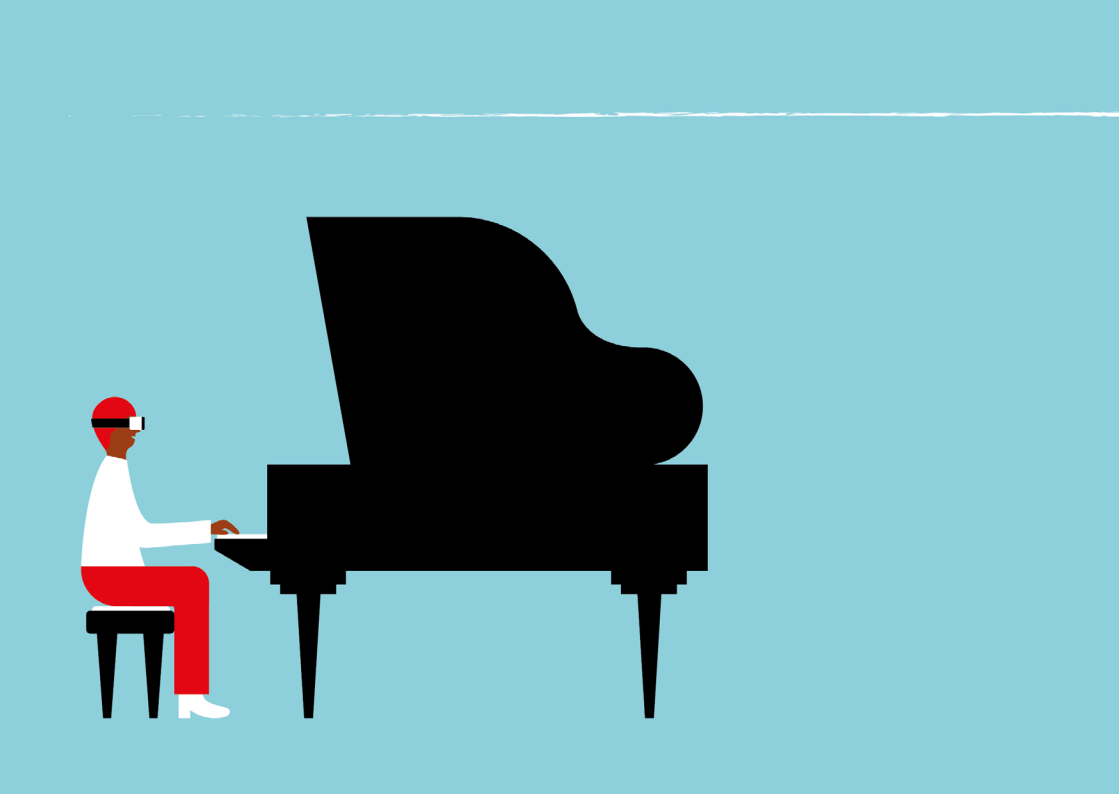
“Nah,” he says, laughing. “I’m helping at the kindergarten at the center today. They’re really excited about our new, colorful cultivation.” I frown. Lately, on his flexible days, he’s almost always there instead of the greenhouse.
“Well, and Lara, she’s really nice,” he then adds.

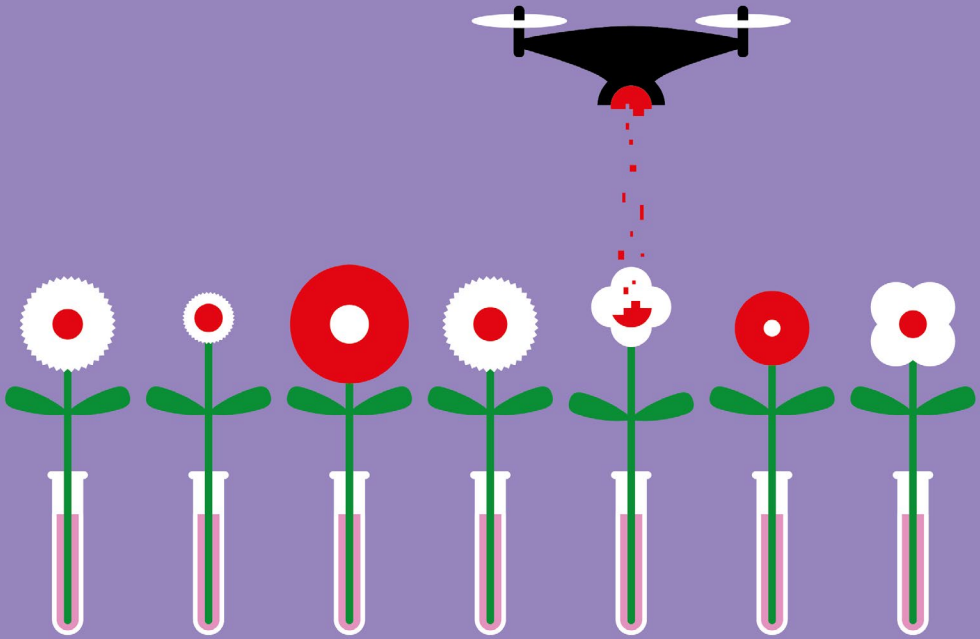
So that’s what’s going on. The kindergarten teacher is perhaps more the reason than the enthusiasm of the little ones. “It’s really nice to have the choice!” I say and wink at him. Maybe I should present my work in the kindergarten soon and get to know this Lara.
A little later I’m standing under the apple trees with Angelika. Our brones are humming around us, securing the next harvest. Angelika had been spending her flexible workdays with us in the group lately, after she noticed that the brones approach the blossoms only shortly before wilting, which unfortunately reduced the yield of the harvest enormously.

We observe, puzzle over the situation and discuss for a long while what improvements we could make.
Next to us, Angelika's daughter plays with a ball and asks what we are talking about. When I explain to her that we don't understand why the brones don't see when the flowers are at their best, she laughs. She then closes her eyes, sticks her nose up in the air and takes a deep breath. They don't have to see, they have to smell, she says, and then calls out and chases after her ball.

Angelika and I look at each other, and aware that this little girl had just taken us a step further and that we would probably be studying odor sensors in the robotics lab next week, we start laughing.

Illustrator's Lens





Foresight Lens I

STEEP Framework

What are the underlying assumptions of this story?

In what kind of a world do we find ourselves in this essay?

What assumptions are made about the year 2040?

How is it different from the world we live in today?

Which assumptions are plausible? Which ones are not?
Which ones are desirable? Which ones are not?

Which ideas are surprising? And which ones are not?

Which ideas might not evolve as described in the story,
yet inspire us when thinking about what could be?

Where do we currently see trends heading in the direction of the story?

STEEP analysis – a Foresight method

STEEP analysis is a useful framework for considering social, technological, economic, ecological/environmental, and political dimensions. Other similar frameworks incorporate considerations such as legal, ethical and demographic (STEEPLED) or regulatory factors (STEER).[1]

[1] Foresight The Manual, p. 21, 2014, UNDP Global Centre for Public Service Excellence

What initially looks like a fun story can be analyzed using the STEEP framework. We examine the text in depth for underlying assumptions.

These assumptions are then sorted into social, technological, economic, environmental and/or political categories and serve as a springboard for discussions about possible future developments.

More often than not, assumptions can be assigned to more than just one area. We live in a complex world where these domains are interconnected and influence each other.

In the following analysis, the assumptions underpinning the story have been assigned to one main dimension as well as to others using color tags. Depending on your perspective, you might assign the assumptions to another main area or formulate them entirely differently. This analysis is not set in stone but rather serves as a starting point for a nuanced discussion.

STEEP analysis

S

Work and life form a continuum
economical social

Kids present at workplace
social

Learning time instead of academic studies
social

ETH inclusive, open and accessible
political social

T

Brones = bee drones
technological

High-tech agriculture
technological

"Brone"-compatible flowers
environmental technological

Fresh food after famine thanks to technical innovation
environmental social technological

Ec

Flexdays: flexible working days
economical social

Transdisciplinary work between musicians and scientists results in innovation
economical social

En

Famine due to climate change
environmental

P

Diverse society
political social

Foresight Lens II

Backcasting

How can we build a bridge from today to the future described in the story?

What changes would have to take place for the world in the essay to come true?

Trying to build one big bridge that explains and reconstructs everything can be overwhelming. The STEEP analysis helps us approach this task systematically. We can then build several small bridges, focusing on one of the changes described in the story at a time.

Where do you find it easy to build a bridge to the future in the essay?

Where is the foundation for a change already laid in the present?

Which changes seem like a big jump with no connection to the present?

Backcasting: a Foresight method

Defines a desirable future and then works backwards to identify major events and decisions that generated that future, allowing organizations to consider what actions, policies and programs are needed today that will connect the future to the present.[2]

[2] Foresight The Manual, p. 15, 2014, UNDP Global Centre for Public Service Excellence

There is not just a single way to get from today to the future. There are many, depending on where you start and the assumptions you make along the way.

Building these bridges helps us to formulate specific questions about the future that we can then discuss with experts from the appropriate fields.

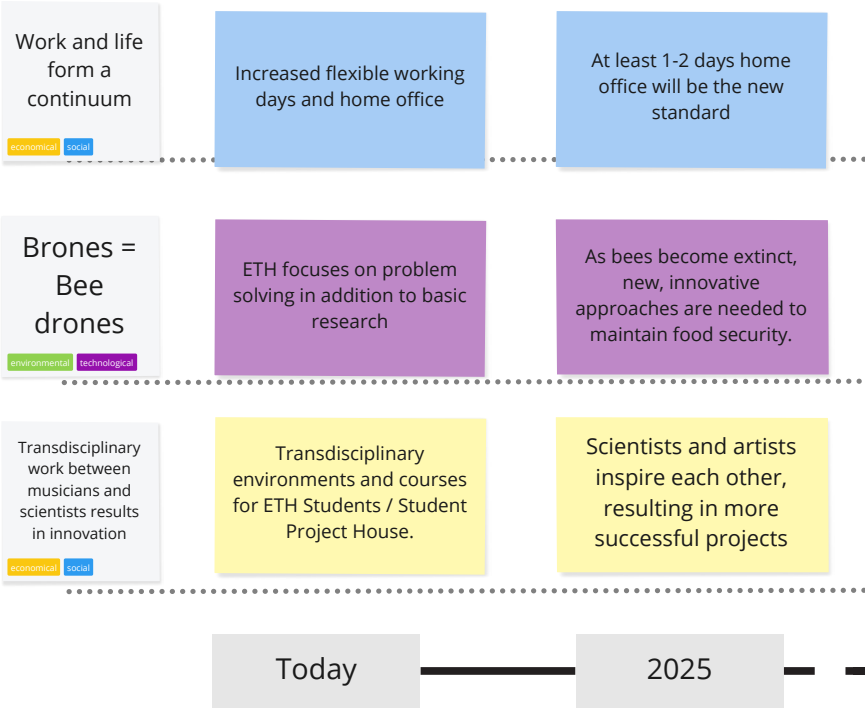
This approach forces us to think step-by-step about all that is required for a change to occur. By thinking in small steps, we might encounter an inspiring idea that we would not have thought about otherwise.

Backcasting also enables us to assess whether certain developments are plausible and if we can already see trends pointing in that direction.

On the next page, we have done backcasting for three of the underlying assumptions in the text.

How would you bridge the story's other changes from the future back to the present?

Backcasting



Rigid working hours are a thing of the past. Work corresponds to internal motivation and does not need prescribed working hours.

There is hardly any distinction between life and work.

Work and Life form a continuum

ETH develops approaches that are inspired by nature.

The first brone prototypes are developed by a student; the successful project will become an ETH flagship project.

Brones = bee drones

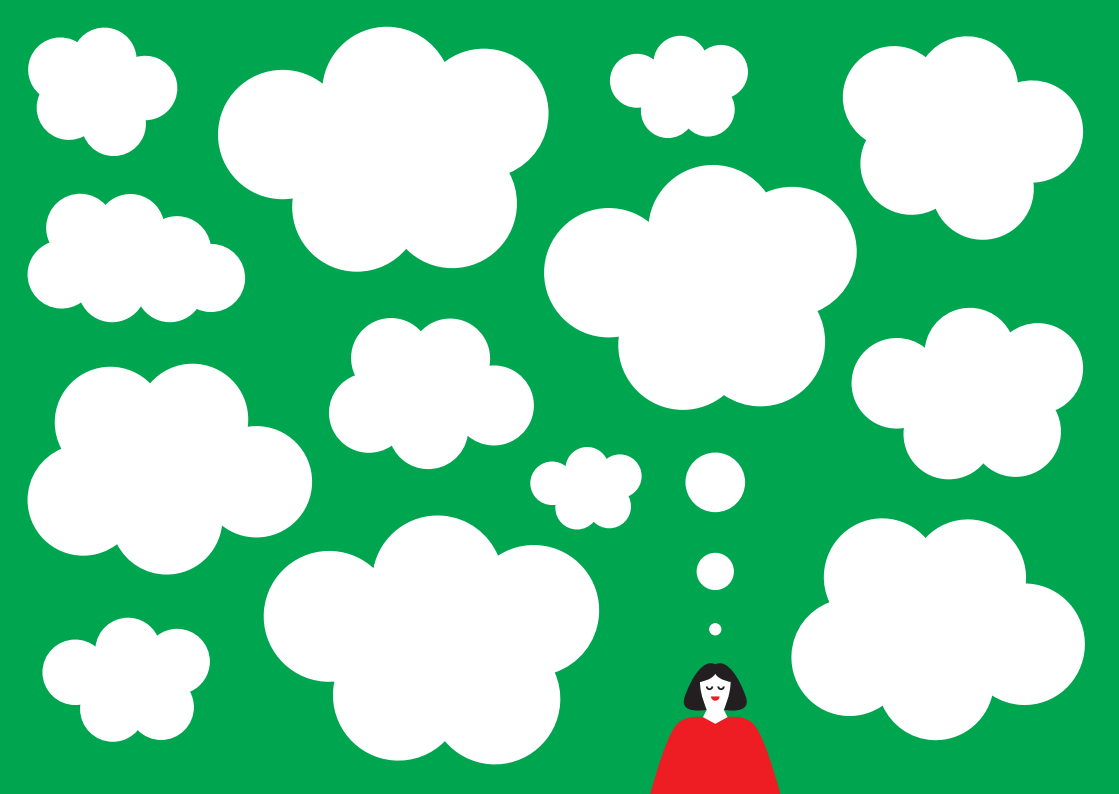
Transdisciplinary environments and courses for ETH students / Student Project House: scientists are inspired by artists; collaborations lead to more successful projects.

Art and science are seen as equal approaches to problem solving.

Transdisciplinary work between musicians and scientists results in innovation

2030

2040



What is your vision for the year 2040?

What about this story inspired you? Could you imagine living in the world that is described? What kind of world would you like to live in?

Travel to 2040!

Depending on your age, think back to a day 5, 10 or even 20 years ago. Where were you back then? What was your daily routine like? How did you communicate with your friends? How long did a trip to New York take? Did you always carry your phone charger around with you? What would you find in your pocket? Did you read the news every hour?

What about today? What does your routine look like? What is in your pocket? How do you travel? Where do you go? What do you assume you can "normally" do in your daily life? How likely is this going to change? What if it does?

Get in touch and share your vision with us. Join our Friends of Foresight Community and co-create futures.

Strategic Foresight

In times of increasingly rapid change, growing complexity, and critical uncertainty, responsible governance requires preparing for the unexpected. Strategic Foresight is required whenever there is a high degree of uncertainty surrounding changes to the relevant future context in question.

Foresight uses a range of methodologies, such as scanning the horizon for emerging changes, analyzing megatrends and developing multiple scenarios, to reveal and discuss useful ideas about the future.[3]

[3] https://www.oecd.org/strategic-foresight/whatisforesight/

ETH Zurich's Strategic Foresight Hub

ETH Zurich established the Strategic Foresight Hub, based in the Office of the President, to deep-dive into the intriguing territory of long-term trends and plausible futures. The Hub's core mission is to advance a deeper and more profound understanding of how the university, our society and the world at large could evolve in the future. The intent is to look beyond the obvious.

The Strategic Foresight Hub provides the space, guidance, tools and methodologies to all those interested in engaging with "what could be". The power of Strategic Foresight lies in its ability to engage a wide range of stakeholders in a creative and non-partisan manner to facilitate new refreshing perspectives concerning important future developments. The team helps others to reflect upon the implications that various future contexts might bring.

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2040 Essay Contest: Hybrid
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