



# REFRAMING - - - -

//Tech // Problems // Future

14.3.2018 Tuuli U @ IS

# Presentation

Technology part

Problem part

Future part

“Technology is a product of  
an animal/human mind.”

“Would only occur because of life, but is not living”

Kevin Kelly



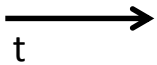
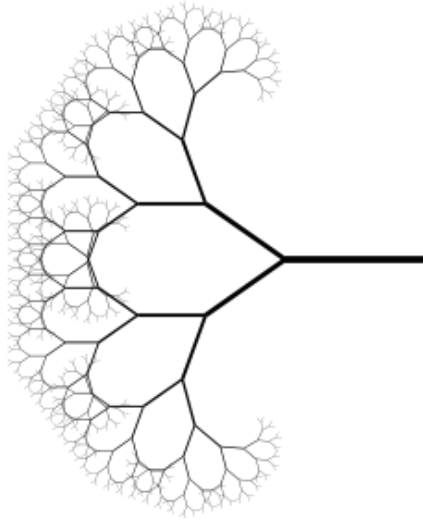
# Technological evolution

Natural sequence to developments

e.g. domestication of dogs → pottery →  
sewing → etc.

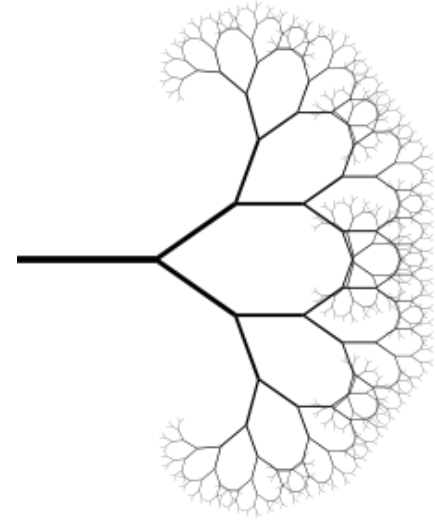
**Kevin Kelly**

# Technology as a catalyst for evolution



Converging and creating  
of a single “megatech”

e.g. Pierre Teilhard de Chardin



Diverging and creating  
forever divergent tech

e.g. Kevin Kelly

How will your project fit into the  
“techno sphere” or expand it?

What are the qualities of a good partner?

Freedom or crotches?

Enabling or disabling?





# Symbiotic co-existence or oppression?

Are we setting up AI servants to rebel..

<https://www.meltin.jp/>

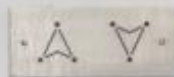
# Conversation:

What's our Teams relationship with technology?

Problem part

For engineers challenge is like... how can we make it **better, faster and smaller – more efficiently?**

Challenge is not like... how can we make something people will **like?**



- 7 Research Laboratory
- 6 Research Laboratory
- 5 Research Laboratory
- 4 Research Laboratory
- 3 Water
- 2 Department of Research and Engineering
- 1 Water Street West Building

# PROBLEM --- NEED

2 sides of the same coin

What to consider  
when  
framing a challenge?



1. How open is it?

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Fix the pen cap ----- Fix the world



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Fix the pen cap ----- Fix the world



Why? →

e.g. “Give Rebecca a reusable drinking bottle”

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Fix the pen cap ----- Fix the world

Why? →

e.g. “Give Rebecca a reusable drinking bottle”

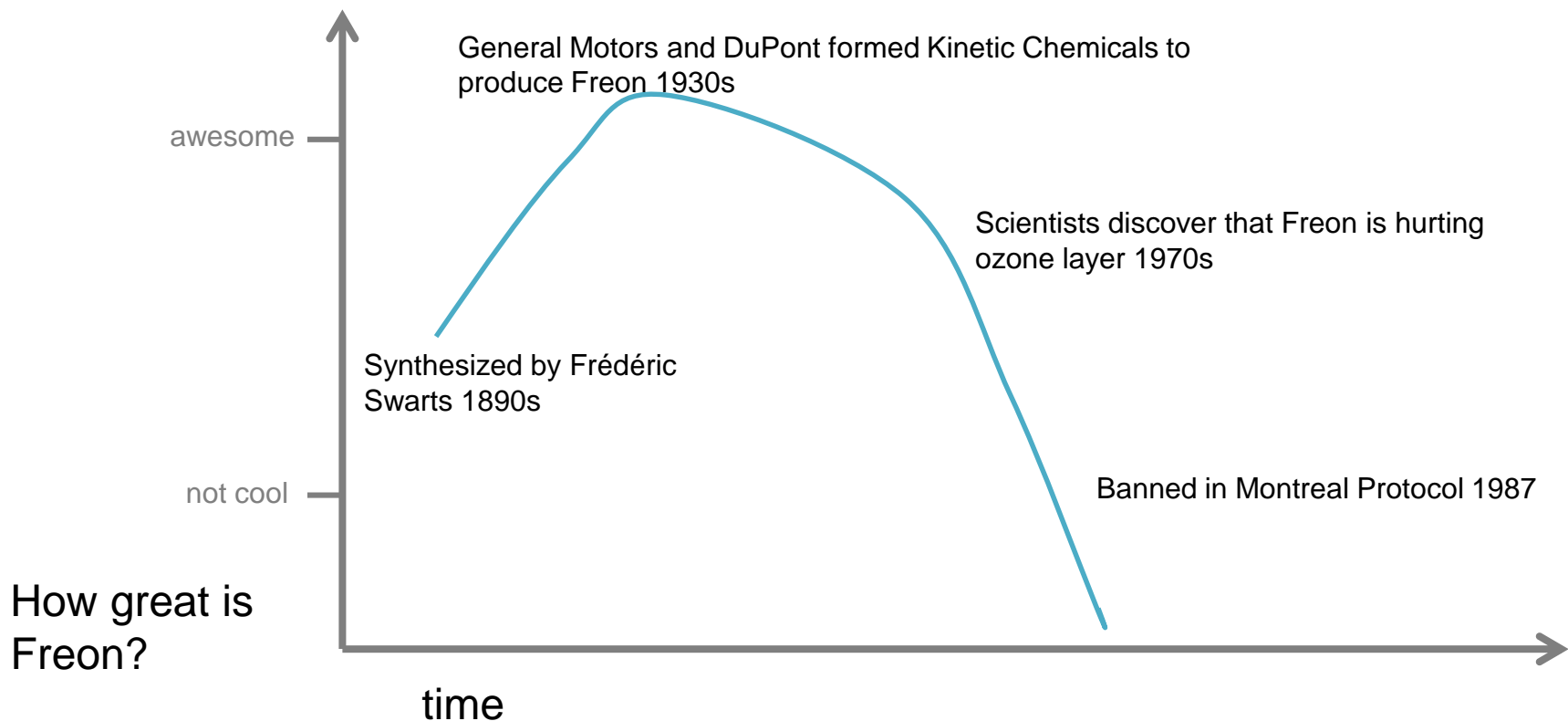


<- How?

e.g. “Water scarcity, water purification”

## 2. What is your time perspective?

20 weeks ----- **20 months** -----**20 years**



When do we measure the success of an invention?

## 2. What is your time perspective?

20 weeks ----- **20 months** -----**20 years**

## 2. What is your time perspective?

20 weeks ----- 20 months ----- 20 years or more  
↑

**Best way to predict the future is to invent it**  
**→ backcasting from future to present**



3. How holistically is the challenge framed?

### 3. How holistically is the challenge framed?

The world is a system  
with all the parts  
connected



Change one part and  
move the other e.g. “Why  
are the sewer caps  
missing?” “Why is  
everyone growing  
snakes?”

# Problem

Fill in the statement below.  
Be concise!



*Fix the pen cap*




*Fix the world*

**Team:** \_\_\_\_\_


## We aim to change

*How do we know that this is a problem?*



*Who's experiencing the problem?*

*What will follow if this issue is solved?*

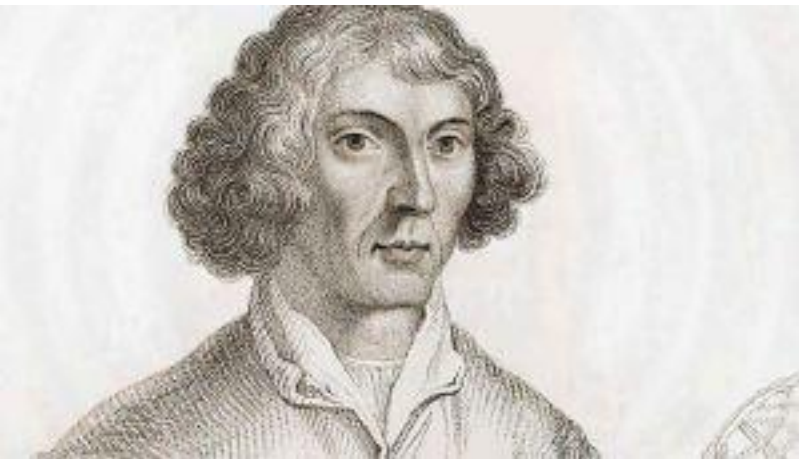


Future part

Step 1: Fundamental research:  
“Check what I found!”

Step 2: Society: “So...?”

Step 3: Century later something  
unimaginable is born.

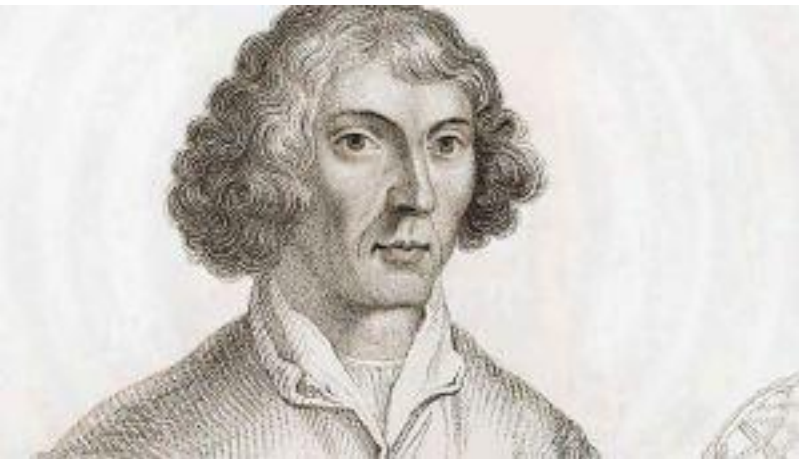


Copernicus:

“Orbits are elliptical”

Society:

“Great, but how will this help me  
grow potatoes?”



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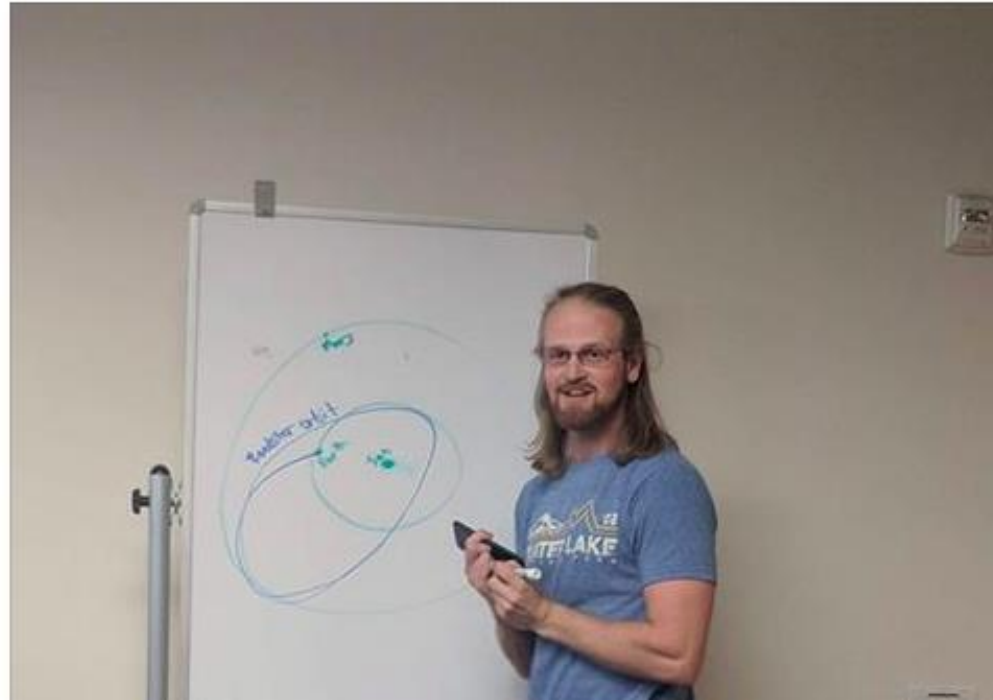
“Great, but how will this help me  
grow potatoes?”

Google best products

Sell potatoes online...

My Job description: inform team about business-critical missions, notably the orbital dynamics of Elon's Roadster and Starman. TL;DR: SpaceX launched the first Falcon Heavy, sending the first Tesla on a Mars orbit trajectory (actually beyond Mars..). Just your typical day working for Elon...

PC: @Irene Kucherova



Unpredictable  
livelihood  
in 1800's



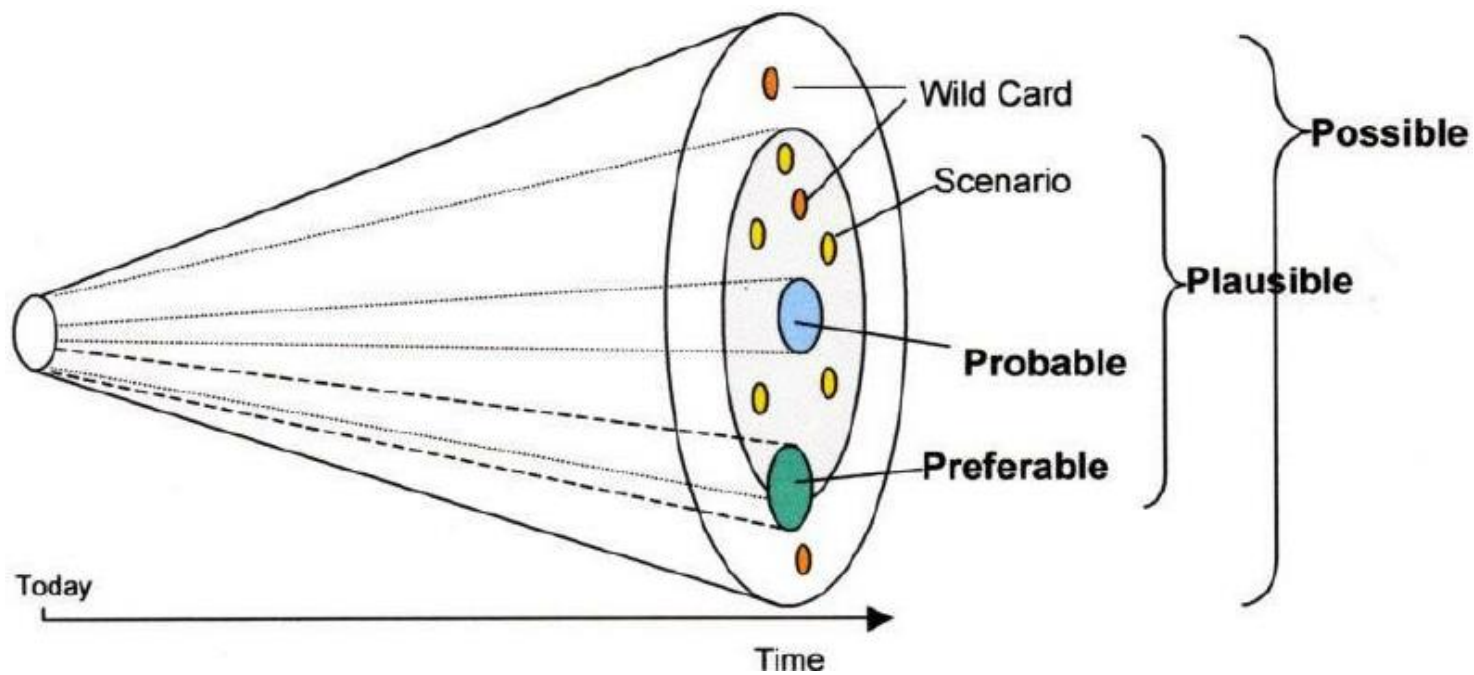
“Who here thinks AI will significantly impact the industry you are working in the next 4 years?”

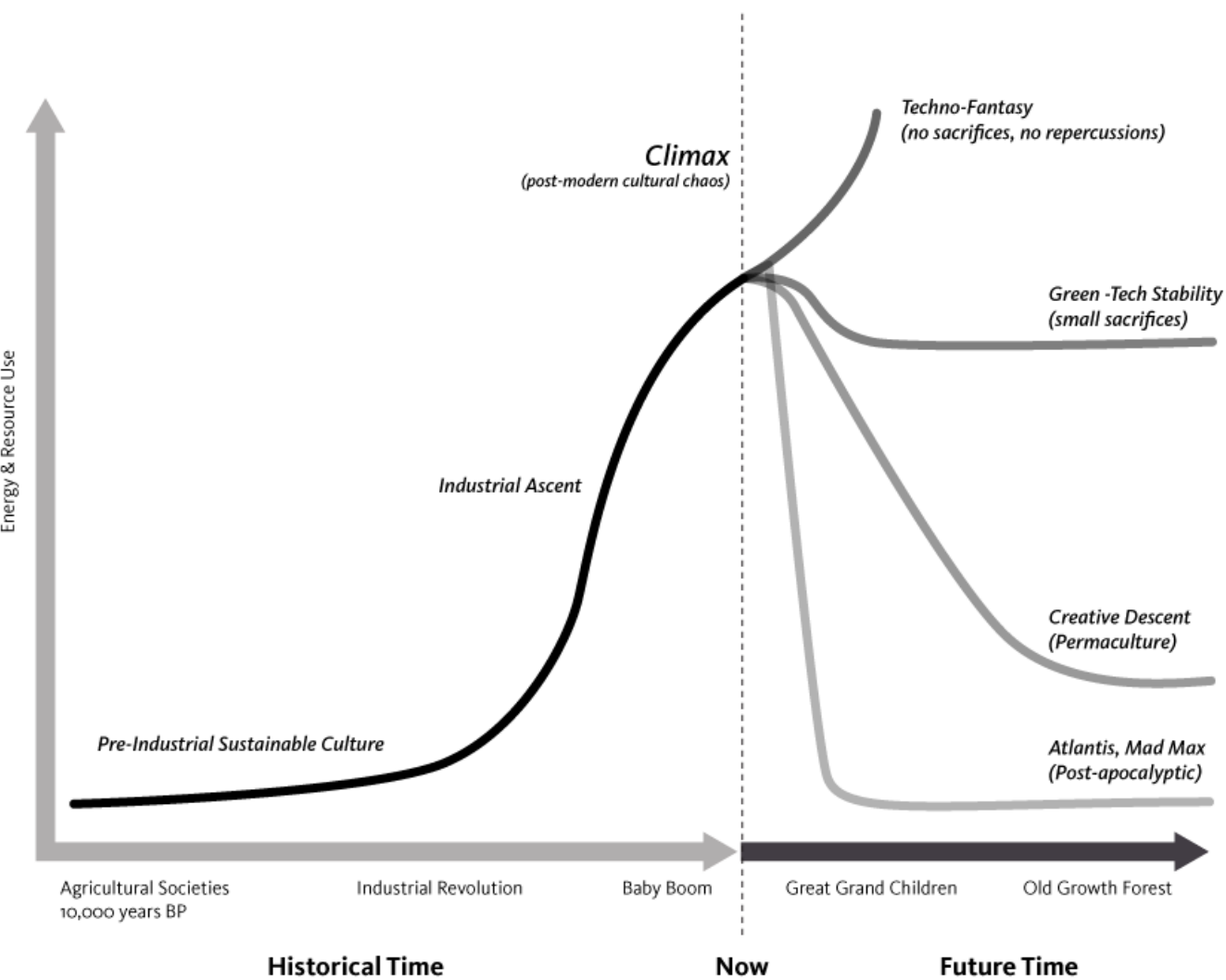
“Who here can tell me they understand what AI is?”

“Who here thinks AI will significantly impact the industry you are working in the next 4 years?”

... how is this possible?

“Who here can tell me they understand what AI is?”





Energy?  
Inequality?  
Work?

...

# Speculative fiction

Name ↕	Description ↕	Examples ↕
<b>Fantasy</b>	Includes elements and beings from human cultural imagination, such as <a href="#">mythical creatures</a> ( <a href="#">dragons</a> and <a href="#">fairies</a> , for example), <a href="#">magic</a> and magical elements, <a href="#">sorcery</a> , <a href="#">witchcraft</a> , etc.	<i>The Lord of the Rings, Harry Potter</i>
<b>Science fiction</b>	Features natural sciences and <a href="#">technologies</a> that do not exist in real life (but may be supposed to exist in the future), including <a href="#">robots</a> , <a href="#">interstellar travel</a> , flying cars and also beings and societies from other planets (aliens).	<i>2001: A Space Odyssey, Blade Runner, Jurassic Park, Planet of the Apes, Star Trek, Star Wars</i>
<b>Horror</b>	Somewhat similar to fantasy, but focusing on terrifying, evil and often powerful beings, such as <a href="#">monsters</a> and <a href="#">ghosts</a> . Also aims to transmit actual fear and confusion to the reader/watcher.	<i>A Nightmare on Elm Street, The Exorcist</i>
<b>Utopian</b>	Takes place in a highly desirable society, often presented as advanced, happy, intelligent or even perfect or problem-free.	<i>Island, Ecotopia, 17776</i>
<b>Dystopian</b>	Takes place in a highly undesirable society, often plagued with strict control, violence, chaos, brainwashing and other negative elements.	<i>1984, Brave New World, Brazil</i>
<b>Alternate history</b>	Focusing on historical events as if they happened in a different way, and their implications on the present.	<i>The Man In The High Castle, Fatherland, The Tales of Alvin Maker</i>
<b>Apocalyptic</b>	Takes place before and during a massive, worldwide disaster.	<i>The Day After Tomorrow, 2012, On The Beach, Threads</i>
<b>Post-apocalyptic</b>	Focuses on groups of survivors after a massive, typically worldwide disaster.	<i>Waterworld, Metro 2033, The Stand, Fallout, Mad Max</i>
<b>Superhero</b>	Centers on <a href="#">superheroes</a> (i.e. heroes with extraordinary abilities or powers) and their fight against evil forces such as <a href="#">supervillains</a> . Typically incorporates elements of science fiction and/or fantasy, and may be a subgenre of them.	<i>Spider-Man, Avengers, Batman</i>
<b>Supernatural</b>	Exploits or requires as plot devices or themes some contradictions of the commonplace <a href="#">natural world</a> and <a href="#">materialist</a> assumptions about it.	<i>Paranormal Activity, Fallen, The Castle of Otranto</i>

Lets talk about solar punk





# What is Solarpunk?







“Solarpunk is a movement in speculative fiction, art, fashion and activism that seeks to answer and embody the question “what does a sustainable civilization look like, and how can we get there?”

The aesthetics of solarpunk merge the practical with the beautiful, the well-designed with the green and wild, the bright and colorful with the earthy and solid.

Solarpunk can be utopian, just optimistic, or concerned with the struggles en route to a better world — but never dystopian. As our world roils with calamity, we need solutions, not warnings. “

If you don't have a dream, how can it  
come true?

FUTURE STORYWORLDS  
24.11.2017 @CERN

Monika Bielskyte

### DYSTOPIAN FUTURES LACK:

1. Environmental awareness & biomimicry in tech
2. Diversity - cultural but also of abilities
3. Ritual & spirituality (also!beyond the book religions)
4. Creativity (not limited to art as we know)
5. Empowered youth & street culture
6. Gender & family visions beyond existing stereotypes
7. Rethinking of human body
8. Depiction of scientific community that is not caricaturized/degraded
9. Economic/values evolution

THOSE WHO CONTROL THE FANTASY,  
CONTROL THE FUTURE

Monika Bielskyte



## ***Key events that will essentially affect our challenge in the future:***



***Event 1:***

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***Event 2:***

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***Event 3:***

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*e.g. related to*  
*Work*  
*Culture*  
*Natural disasters*  
*AI*  
*Singularity*  
*Social acceptance*  
*Identity*  
*Fashion*  
*Family model*  
*Spending time*  
*Cyborg grandmother*  
*Relationships*  
*Religion*  
*Cost of X*  
*...*