

TWO

SCENARIOS FOR THE FUTURE

A preliminary exploration of how our conceptualization of the Metaverse shapes our democratic agency.

This report aims at sharpening and qualifying how we, as a society, should approach the relationship between young people, technologies of the future and our democracy.

As a society, we need to...

train and cultivate our ability to think about the future, as a vital competence and asset

use youth's gaze to understand our own biases and dogma

strengthen our intergenerational deliberations on the future

When we use the concept of Metaverse we need to...

specify in what way we define this technological reality and which set of technologies and applications we refer to.

ensure transparency by exposing our own expectations so that any misunderstandings or alternate perceptions can be addressed.

involve diverse expertise that can develop and challenge the overall set of technological components that make up our understanding of the metaverse as a concept.

- I. Introduction
- II. The Future as a Currency and Competence across Generations
- III. A Democratization of the Metaverse as a Concept
- IV. Building the Future with Presence
- V. Further Work and Studies

INTRODUCTION

Future Generations Shaping Future Technology wants to ensure that young people become key actors in the societal preparations for XR technologies.

The Danish youth are pioneers when it comes to engaging with and broadening our perceptions of emerging technologies. As such, youth is in a unique position to shape the technologies of the future. However, young people's technological confidence doesn't converge with their ability to challenge existing technologies. As depicted in our first report - One Future - this lack of technological confidence steams from a inherent perception among youth - that in order to change, challenge or influence the technologies of the future, one must be able to understand and work with the back-end of technologies.

The concept of technological confidence refers to the report One Future, published by Future Generations Shaping Future Technology in October 2022. The concept covers the feeling of being able or unable to act democratically on the technological challenges that one sees. We have identified that young people have a low technological confidence, as a consequence of a perception that coding and programming skills alone can enable one to act. Read the full report [here](#).

Young people are key users of new technologies and they can make us question how and why we use current and future technologies as we do. It is crucial that we ensure that young people are acknowledged in the conversation about the development and use of future technologies. Since August 2022 we have addressed this through the following activities..

Organized 8 workshops for over 200 young people between the age of 15 and 20

Facilitated all-day workshops and meetings for 16 young core volunteers (Future Squad) between the age of 19 and 29

Established an Advisory Board with representatives from the "Copenhagen Institute for Future Studies," "Analyse & Tal," "Kriktik Digital," and "Khora VR"

Participated in debates and events in Denmark and abroad, including "Empower the Youth - Seize the Potential of the Digital Economy" in Brussels and "Is technology changing our trust in democracy?" at Christiansborg, Copenhagen.

Published the precursor to this report "One Future" in October 2022

Established a collaboration around a master thesis centered around youth, democracy and XR technologies.

THE FUTURE AS A CURRENCY AND COMPETENCE ACROSS GENERATIONS

No one knows exactly, what the future will hold. There is nevertheless inevitable a power in depicting the future. Those who have the ability to articulate a compelling description of the future can also guide and influence how we act and make decisions. As such, 'the future' can be seen both as a currency and a competence. For example - if you understand and have the skills to work with challenges and opportunities that are relevant to the future, you can play a role in shaping the future and its trends - and use the abilities to position strategically.

In our encounters with young people, we are continually confronted with the gap that is growing between generations. The abilities and opportunities to navigate the technologies of the future is conditioned and affected by lived experience.

More specifically, young people's understandings and reflections about the future and XR technologies are conditioned by the digital realities in which they have grown up. Likewise, other generations' thinking is shaped by the developments they have witnessed. It is - among other things - the experience of a 'before' and an 'after' digital relationships that leads some generations to ask certain questions while others ask different ones. Young people today grew up with digital platforms and relationships - which has generated an understandings of how virtual relationships - can exist. As an example, it is the gap, that makes some generations question the value of virtual skins while others accept the premise completely. In the differences between generations, we have noticed a number of key opportunities, but also challenges, that we need to address.

Virtual skins - or virtual goods - are virtual and digital items purchased for use in virtual communities and/or games.

#1 It is essential, that we cultivate our ability to think about the future, as a vital competence



Pictures from Beate Karlssons
Metaverse collection
Source: [Hyperbae](#)

The ability to navigate the future includes an ability to understand trends and changes taking place in the world - and further to use this knowledge to make informed decisions and analyze on who the future, we envision, will benefit.

Young people today have not experienced tech revolutions that have transformed society (e.g. the smartphone), this affects - not only the way young people encounter new technologies - but it also affects the concerns and dreams that young people hold in relation to new technologies. As an example 'Creator Economy' is not necessarily questioned as something good or bad. Instead, it is just an integral part of the reality of youth.

When today's youth lack technological confidence and don't feel an agency to act, it's partly due to the narrative - that it requires back-end competences to act.

Secondly, we are observing how young people do not have sufficient competences to navigate in and with the future. Not because young people cannot, but because young people have not been trained to do so. This becomes clear when young people cannot imagine how fast radical technological change can actually unfold. We need to actively cultivate and insist on training young people to think about, reflect on and address the future.

#2 It is essential, that we use the gaze of youth to understand our own biases and dogma

Young people have a different lived experience and can play a role in collectively challenging biases. Young people's attitudes towards and their use of technologies provide an opportunity for us to ask questions such as: How come we behave the way we do?

Beate Karlsson: Metaverse collection

27 year old Beate Karlsson, Creative Director at AVAVAV, is not only one of the young emerging design talents. She is also one of those who have embraced the Metaverse and virtual collections. As she describes it, the space of possibility, "you don't have to consider comfort or dress codes. It's a dream for a designer".

Not only is Beate Karlsson an example of youth's insistence on trying new methods, it is also an illustration of how new technologies force us to deal with our existing dogma and biases. Karlsson herself articulates precisely this need and desire,

"I wanted to extend the ideas of our collections in ways that are problematic in real life. For example, I've wanted to create an extended version of our finger shoes that hasn't been possible IRL"

Source: [Hyperbae](#)

Furthermore, youth's perspectives can help us understand the underlying principles that different actors act from. It is crucial that we look at the beliefs, values and intentions that guide different actors and the narratives they set out: Does the future we are moving towards have the right representation? Is it diverse and inclusive? Who benefits from it? And who decides what is good?

#3 It is essential, that we strengthen our intergenerational deliberations on the future

When we look at the future as a competence, we must not neglect the power that exists in the way we talk about the future. Nor should we neglect the ability to understand the collective narratives in interaction with the reality in which we find ourselves. When we talk about the technologies of the future, they are directly linked to ideas about our democracy - and in this way, technology makes direct or indirect demands on the capacity of both society and the individual - to understand and act in a civil society, to take political stands and to navigate complexity.

Our experience suggests that the differences across generations hold unique insights that can contribute to nuanced understandings of the reality in which we find ourselves. The different generations hold vital facets and understandings of the future we face. Young people's unstoppable ability to question and challenge our notions can challenge the experiences from other generations - on how things have been and how they should be. At the same time, intergenerational workshops can help strengthen the accessibility of the metaverse, by specifically addressing and accommodating each generation's unique preferences and the intersections in between.

A DEMOCRATIZATION OF THE METaverse AS A CONCEPT

The concept of 'Metavers' first appeared in the 1992's science fiction novel Snow Crash, but already in 1956 the cinematographer Morten Heilig launched The Sensorama, - the first real VR machine. The concept of a fully immersive virtual world is not new - on the contrary. However, it is also vital that the concept of the 'metaverse' is not confined to VR experiences. Wee need to consider the ways in which we actualize and conceptualize the metaverse.



[The Sensorama - 1956](#)

The concept of the Metaverse includes everything from blockchain, Internet of Things, and AI, and each of these sub-components provides a different perspective on the expectations we have for the technologies of the future. While the Metaverse itself does not contain the aspiration for decentralization, it is inherent in the notion of Web3 which is often linked to the Metaverse. Similarly, Internet of Things can be said to be a convergence of our physical and digital spaces in the same way as AR. In this way, each sub-component tells us something about the overall vision of the Metaverse.

Therefore, it is crucial that each actor actively unveils the way in which they are working towards the Metaverse. For the Metaverse - as a concept and a notion - is at this stage a set of different technologies that promise various new extensions of the digital platforms we already know. This makes the concept of the Metaverse inherently diffuse - when everyone is trying to define it, while no one can specifically point to the end goal.

Bearing this in mind, we can still say that the Metaverse already exists: It could be argued that, we as a collective, have talked it into existence. While commercial subgoals are already on the rise, such as Niantic's Pokemon Go, there are at the same time a number of technologies that needs maturing and are nowhere near being commercially present in our everyday lives.

The fact that a truly mature metaverse is not yet in place does not mean that we cannot or should not already be outlining a democratic understanding of where we want our technological reality to go. The key will be to democratize the concept of the metaverse so it becomes more accessible to understand its various components. In concrete terms, this means that everyone - who uses the term Metaverse - should:

Specify in what way they define this technological reality and which set of technologies and applications they are referring to.

Ensure transparency by exposing their own expectations so that any misunderstandings and alternate perceptions can be addressed.

Involve diverse expertise that can develop and challenge the overall set of technological components that make up their understanding of the metaverse as a concept.

When Future Generations Shaping Future Technology explores the technologies of the future - and specifically the metaverse - it is from an understanding of the metaverse as the set of technologies that seek to converge our virtual and digital lives. This conceptualization of the Metaverse includes a set of technologies with everything from XR to Internet of Things, AI, Digital Twins, Tokenization and Avatars. The definition does not necessarily restrict itself to thoughts of Web3.

However, decentralization - such as Web3 - is considered as an aspiration and a set of expectations for future technological infrastructures, which are not necessarily essential for the existence of the metaverse as a concept in itself.

Central to the metaverse as a concept is how it works from a wish to open up more virtual possibilities in our physical space. At the same time, it is central how technologies such as Digital Twins and Avatars are very much trying to embed the physical in the digital and vice versa. It is the overall set of technologies that seek to foster more clear interoperability between the physical world we live in and the virtual worlds we create.

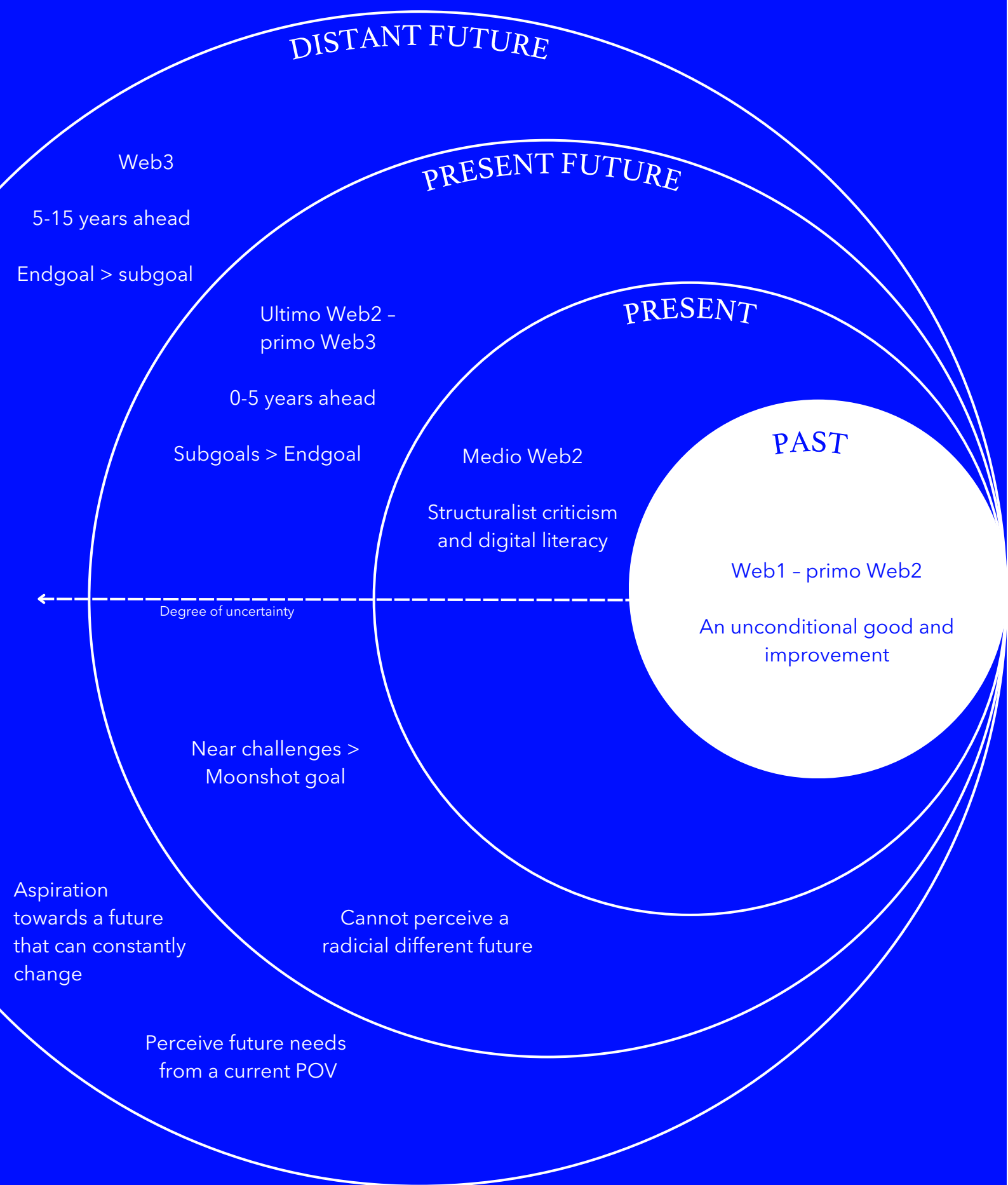
Metavers, the immersive internet, Web3, or something else?

The way in which we describe the future we envision, directly points to what kind of agency we imagine.

When we constantly try to conceptualize the overall term for the metaverse, we end up having different conceptualizations. From the 'immersive internet' to Metavers and Web3.

Each of these conceptualizations refers to different aspects and ambitions of what future technologies should and should not be. Where 'the immersive internet' refers directly to virtual extension through AR, VR and MR, Web3 includes elements such as decentralization and blockchain.

As such, it is crucial that we ask which narratives and pictures we depict, when we describe the future.



DISTANT FUTURE

Web3

5-15 years ahead

Endgoal > subgoal

PRESENT FUTURE

Ultimo Web2 -
primo Web3

0-5 years ahead

Subgoals > Endgoal

PRESENT

Medio Web2

Structuralist criticism
and digital literacy

PAST

Web1 - primo Web2

An unconditional good and
improvement

← Degree of uncertainty

Near challenges >
Moonshot goal

Aspiration
towards a future
that can constantly
change

Cannot perceive a
radical different future

Perceive future needs
from a current POV

BUILDING THE FUTURE WITH PRESENCE

Over the past few years, the political landscape and civil society have moved towards a high degree of awareness and focus on the technologies of today and tomorrow. This awareness is a significant response to the desire to take ownership of and democratize the technologies we use in our daily lives. As such, the awareness undeniably speaks to how we as a society currently relate to the metaverse and XR technologies.

This development has emerged in the aftermath of the way we as a society have interacted with digital platforms as if they were an unconditional good. In the past, the belief was primarily that digital platforms could contribute to interdependence across countries and people, enhance the flow of information across borders, and act as a catalyst to ensure more democracy. This belief was particularly evident during the Arab Spring, where the documentation of democratic protests in particular led to a strong endorsement of the democratic potential of digital platforms. Conversely, episodes such as the Storm on Capitol Hill in 2021 are largely driven by a narrative of how the mobilization on digital platforms also holds challenges to our democracy. In other words, we have collectively moved from a sense of liberation through technologies to a greater awareness. In this way, events have over time nuanced how technologies and digital platforms, not only hold a positive or negative potential.

This transformation in our collective language and narratives undeniably also plays a role in how we approach and consider the metaverse today, as a concept and a reality for the future of technology. It is on the basis of this that we have constructed two scenarios that - as caricatures - serve to open up for more nuanced understandings of how our collective language feeds into our technological and democratic agency. Both scenarios are based on the reality in which we live.

Since Meta changed name in 2021, the Metaverse - as a concept and a notion - has gained renewed relevance, and more people has begun to describe and conceptualize the idea of a Metaverse. But there is a paradox in wanting to define one complete Metaverse concept before we actually have the individual XR technologies as a reality in our everyday lives.

In the aftermath of the storm on Capitol Hill, several discussed whether social media companies failed to address online extremism. In addition, debates were swirling about former President Donald Trump's play on social media platforms such as Twitter, which he was also subsequently banned from.

The Arab Spring was described by many as the first smartphone revolution. Here, several highlighted how the documentation of the protests - to the rest of the world - was instrumental in driving political developments.

We all walk around with an idea of what the metaverse is, or an understanding that we do not fully understand it or can't access it. When we try to create a complete idea of the Metaverse concept, we read the development of XR technologies from a basic assumption that everyone working with XR are working from the same logics, desires and end goals.

When outlining the following two scenarios in the report, we address to different time frames, i) a present future, understood as a future within 1-5 years, and ii) a distant future - 5-15 years out in the future. We do this in order to distinguish between the near future, in which we find ourselves, and a future that lies further ahead. Roughly speaking, we can say that uncertainty increases with time, which means that the distant future inevitable is more diffuse and uncontrollable.

SCENARIO #I

The first scenario assumes that we, as a society, consider the Metaverse as one single concept. This is in line with the desire and need to establish a single logic by which we can understand what the Metaverse - as a concept - is. When we focus solely on the Metaverse as one end goal to be achieved, we risk blinding ourselves to the subgoals of which the end goal is composed. In other words, we risk overlooking how parts of XR technologies slowly work their way into our lives, as small sub-goals to the overall end goal: The Metaverse.

If we look only to the distant future, we will at best overlook the sub goals, and at worst neglect them. When we do not focus on the future that exists here and now, we forget to use our present experiences to ask questions and inform our ultimate goals of the future.

The following characteristics characterize the scenario:

Driving force: focus on achieving the end goal - the metaverse as a coherent concept.

Consequence: we overlook the sub-goals when we focus only on the end goal.

Risks: focus on a future that may change up to several times, rather than the present future that lies before us now.

Operational narrative: the Metaverse is something specific that we can grasp now.

Is there a need for definition?

The need or potential need for definition stands out as a key issue. While we are trying to capture the Metaverse, by defining it and making it tangible, it raises questions such as: Whom does a definition benefit?

When the vast majority of Web2 users interact with the Internet without really understanding either the structure or the definition, one can wonder: Why do we focus on the definition of Web3 and the Metaverse?

Given that we already talk so much about the Metaverse, one could argue that we have talked enough about it for it to be considered a reality already. Conversely, the very definition may mean that we end up treating the Metaverse as one concept and thus as something that can only be matured in one way.

The question is, does the definition create room for action? Or does the definition stand in the way of development and iterations?

When the end-goal is more in focus than the sub-goals, we let the overall narrative of the Metaverse guide us, instead of letting the narrative of the Metaverse be guided by our present experiences. This potentially means that in our eagerness to create ownership and democratization, we do not politically or civically relate to the reality we live in here and now. We risk focusing on the abstract narratives of a potential virtual future, rather than asking how we should relate to current sub-goals such as Artificial Intelligence, Internet of Things and Creator-Economy.

In other words, we need to address questions such as how we are currently experiencing new challenges with elements such as AI and more specifically ChatGPT? What impact will AI have on our educational system? And how will AI challenge our skills requirements for the workforce of the future?

we need to continuously look at the new sub-goals and ask how they challenge our existing conceptualization of the Metaverse. In this scenario, we risk having an ultimate view of a future that may not turn out as we expect anyway. This can lead to a one-sided and over-optimistic understanding of the future, and can make it difficult to understand and navigate current technological developments.

SCENARIO #2

In the second scenario, society considers the Metaverse fragmented and incomplete. This means that we continuously highlight sub-goals and ask: Is this the Metaverse? Here we focus on individual subgoals, we experience in our present future, rather than one overall end-goal. By focusing only on the smaller sub-goals, we risk overlooking how our technological infrastructure has a direct impact on how our society will ultimately be shaped. In this scenario a lack of perspective exists as we only look at products and goals here and now, rather than asking: Where are we going? Where can we go? And why?

When we primarily focus on our current future, we approach new technologies as if they were fully developed and matured concepts. This narrow view also means that we potentially judge and reject early stages of something that might be desirable in a distant future. At the same time, we risk overlooking long-term implications, and we do not necessarily ask what questions the subgoal is trying to answer in a distant future. We may end up concluding things like: 'the internet won't last', and thus write off sub-goals as something that should not be acted upon and considered seriously.

The following characteristics characterize the scenario:

Driving force: focus on the importance of individual sub-goals in our daily lives here and now.

Consequence: We expect and consider sub-goals and technologies as mature visions.

Risks: Our attempts to relate to the present future fail to generate a visions for a radically different future.

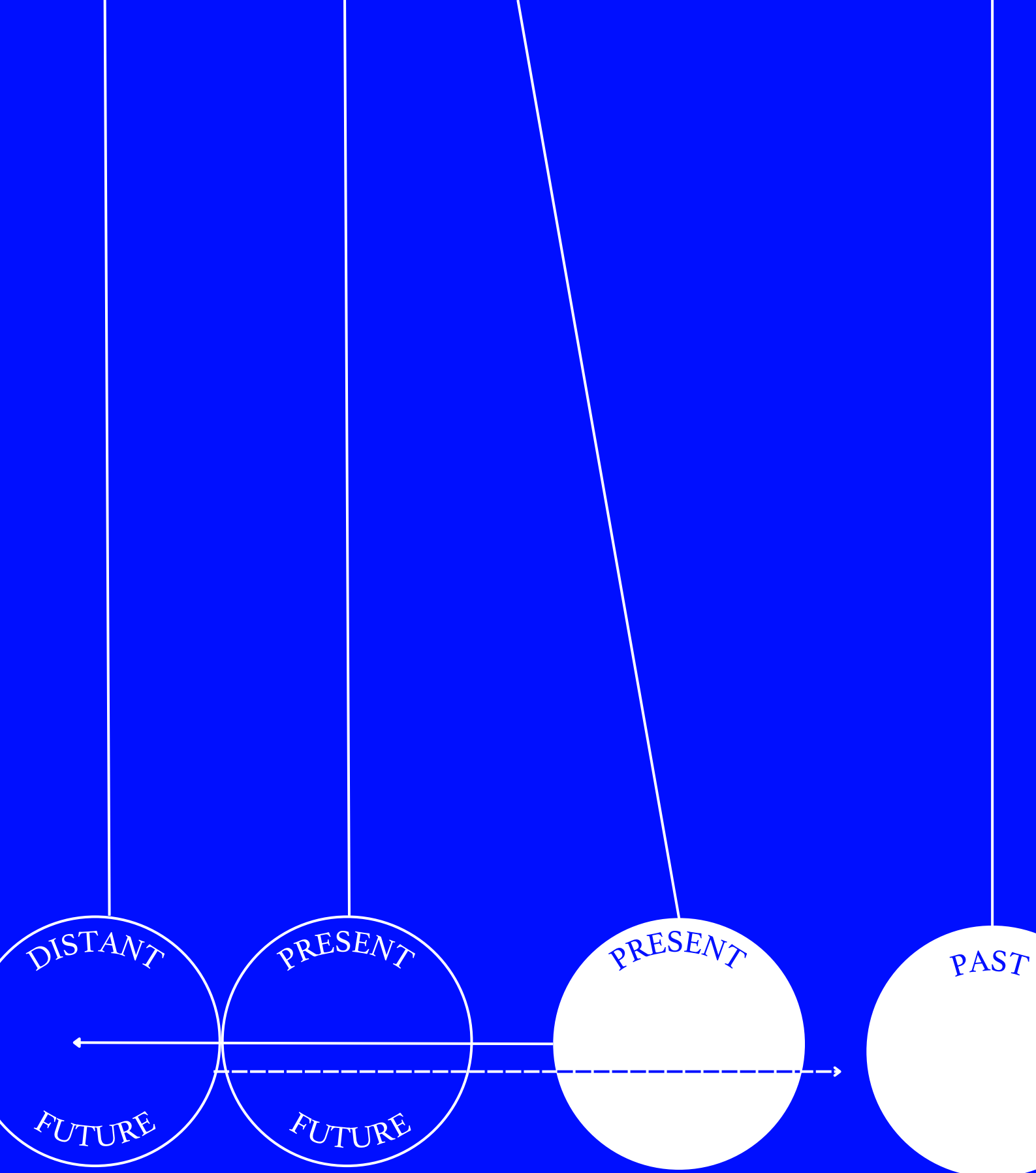
Operational narrative: the Metaverse becomes an optimization of our current society rather than a proposition for a new technological reality

In this scenario, we end up not viewing new technologies as a proposition of the future. In concrete terms, the individual sub-goals only become a reflection of our present future and everyday life, rather than a sign or a proposition of a radically different future. There is a risk that the individual sub-goals will not be put into perspective for an understanding of the whole range of technologies, which will result in lack of mutual understanding of the capabilities of the sub-goals.

Central to both scenarios is that they, as caricatures, aren't sufficient. However, they highlight the need for a balance between focusing on the ultimate goal and the current and existing sub-goals. Specifically, this means the ability to differentiate between visionary ideas, with which we shape today's development, and then the existing emerging technologies. This point underlines how we need to look at the present as a prototype, we can use to examine, challenge and explore aspirations for the future.

This is crucial if we are to understand and navigate - both politically and in civil society - with the technological developments that we are in the midst of.

By taking ownership and both relating to the present and the future, we can engage with technology, in way that allows for considerations of both social, cultural and political implications. While the present enables us to test and challenge what technologies can and should do in the first place, the future allows us to ask fundamental questions such as: Where are we going?



PENDULUM ANALYSIS

So far, Future Generations Shaping Future Technology has focused on mapping out how a youth-centered understanding of future technologies can, should and must unfold. "One Future" and "Two Future Scenarios" have methodologically revolved around the interplay between youth, democracy and technology, and based on our current analyses, we are continuously testing and developing insights, points of attention and potentials for the XR technologies and the future. Our work is evolving with help from a group of 16 young core volunteers. The Group is divided into four working groups, which continuously gather knowledge and test hypotheses from four different perspectives.

1 - Dystopic future: Explores the challenges and issues of the Metaverse and XR technologies.

2 - Utopic future: Seeks to highlight the dreams and potentials of the Metaverse and XR technologies.

3 - Democracy and Society: Explores the impact of XR technologies on our society as a whole.

4 - The Individual: Asks questions on how XR technologies affect and will affect the individual. With a particular focus on young individuals.

Simultaneously, we challenge the youth-centered approach by initiating inter-generational spaces that can work as a catalyst for a broader and more nuanced exploration - drawing lines from lived experiences to future aspirations.

Both the projects methodological, strategic and political observations will be formalized in a larger report, which will not only serve as a toolbox for all those working with youth, technology and democracy, but will also point 10 years into the future and ask inevitable questions such as : How do we reach the future we want to see?

COMING THIS SPRING

THE FUTURE OF TECH & SOCIETY

Later this year, Future Generations Shaping Future
Technology will host the conference:

The Future of Tech & Society

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