

FUTURE NEWS

TO CONNECT, TO INFORM AND TO INSPIRE

IN THIS EDITION

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HOW STORYTELLING CAN CHANGE THE FUTURE

WHAT'S WRONG AND HOW TO FIX IT

by Chris Nolan



Tomorrowland, Concept Art, waltdisney.org

DESTINATION: PROTOPIA

Futuristic Barbara Marx Hubbard said, “The future exists first in imagination, then in will, then in reality.” She added, “As you see the future, so you act and as you act, so you become.”

Well, what if we could imagine a world that is continually getting better, becoming more abundant, improving our livelihood and health, and creating unheard of opportunities and possibilities? What if that were, in fact, the world we are now living in? Then, according to Hubbard, we should all be acting and behaving with optimism and hope. Yet, the opposite is true. The world is awash in pessimism and fear of tomorrow. There’s a malaise, even a dread about the future.

So, what’s the disconnect? Why is the real story of a better future not being told? Why is the truth so distorted? And what’s that doing to our imaginations? Neuroscience tells us stories affect our physical and mental makeup on many different levels. Stories can change our brains and directly impact our thoughts, beliefs, feelings, and actions. They shape our world.

So, if our brains use stories to make sense of the world then how are the unavoidable and increasingly apocalyptic news and entertainment narratives shaping our worldview? It’s no wonder we can’t possibly see any the good in the future. Or what Kevin Kelly, the founder of Wired magazine, calls Protopia. This isn’t Dystopia or Utopia but simply a future that is getting exponentially better and better.



THE GOOD, THE BAD AND YOUR BRAIN

There's a reason these negative stories stick with us. Human brains are evolutionarily wired to be nine times more negative than positive. The more fear-based the story, the more it catches our attention. Thus, the old newspaper adage, "If it bleeds, it leads."

Unfortunately, this negative default mode can prevent us from seeing the good in the world (or even ourselves). When we're always in survival mode, we have a hard time grasping just how abundant our lives are and why this is an amazing time to be alive. Yes, we have enormous challenges: The looming consequence of climate change, continued water and energy needs, geopolitical and social unrest, a growing marginalized population, species extinction, and a need for greater empathy for all living things.

But we've also doubled the lifespan of the average human, income around the world has tripled, and despite recent inflation, the cost of goods (food, energy, transportation and communication) has dropped 1000-fold. Global literacy has gone from 25 to 80 percent. Furthermore, technology continues to make things more available and sustainable by driving down the cost of food, energy, healthcare, and housing.

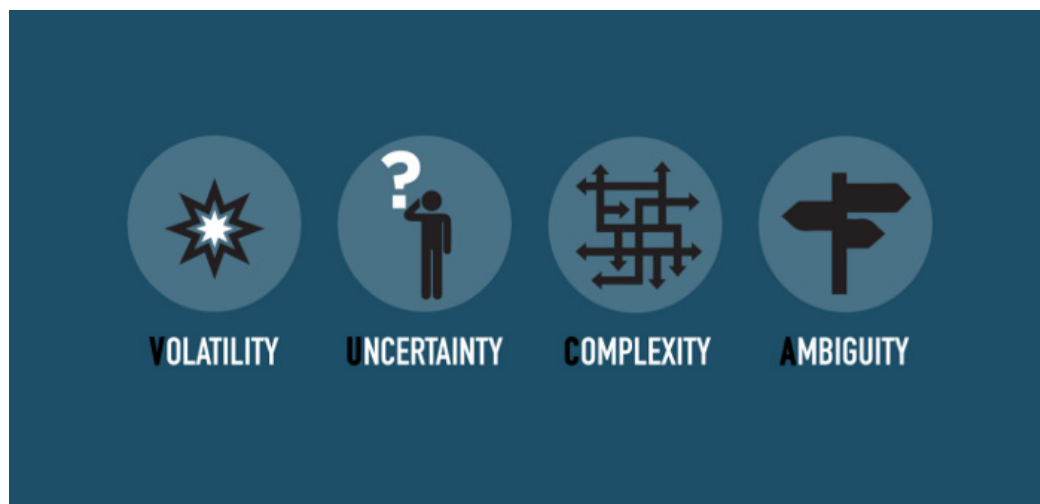
Soon the entire planet of 9 billion people will be connected. When that happens the pace of innovation will be mind-boggling. AI will become ubiquitous and dramatically enhance human capabilities by allowing us to solve problems that have heretofore been unanswerable. But sadly, we don't see progress. Because another neural glitch in our brain's medial frontal limits our ability to comprehend the speed of exponential change.

The human brain evolved in an environment that was local and linear. In our ancestors' lives everything was a day's walk away and the rate of change was very slow. Just over a century ago, the speed of a horse was as fast as information could travel. Now, if something happens on the other side of the planet, we hear about it a millisecond later. The world has not only become global but exponential. This new era is what I call **VUCA MAX**.

VUCA MAX: THE FUTURE IS MOVING FASTER THAN YOU THINK

Massive accelerating exponential change really started kicking in around 2020 during a pivotal point in human history we weren't prepared for. In our documentary: It's VUCA: The Secret to Living in the 21st Century (itsvuca.com) — our mission was to help the world catch up to these radically changing times.

VUCA is an acronym for Volatility, Uncertainty, Complexity, and Ambiguity. It was coined by the military in 1987 to explain the uncertainty of the 20th century and is a very apt way of explaining the conditions and environment of the early part of the 21st Century, in which we were witnessing Moore's Law — every 18 months the power of technology was doubling — and transforming the world. It's why the smartphone in your pocket is now a million times faster, a million times cheaper, and a thousand times smaller than a supercomputer on the 1970s.



Now, the exponential convergence of Moore's Law, Metcalfe's Law, and Wright's Law have created VUCA on steroids. The doubling is converging and compounding. VUCA is now Massive, Accelerating and eXponential. It's now VUCA MAX. To give you an idea just how fast the future is moving, in the next 10 years we will see 100 years of change. In the next 80, we'll see 20,000 years.

Unfortunately, our evolutionary propensity for negativity and linear bias overwhelms us and leaves us vulnerable to our worst fears and distorted dystopian outlooks. It not only blinds us to the truth about the future, and how the future is more abundant than ever — but it also has an adverse impact on our mental health.

CAN ENTERTAINMENT SAVE TOMORROW?

There's always been criticism of the news media and entertainment emphasizing sensationalism and exaggeration over reality. Fear mongering and manipulation goes back to yellow journalism culminating with Orson Wells' 1938 radio broadcast of a Martian invasion.

Now, of course, we know that dystopian scenarios in movies and networks are fictitious. However, given our predisposition to fear and negativity, the entertainment media must be aware of and held both responsible and accountable for the creation and manipulation of the public zeitgeist. Going forward, I will make the argument that there are ways to dramatize narratives and even present dystopias, but still create a more balanced, realistic, and even exciting view of the future.

TOMORROWLAND



"Tomorrow is a heck of a thing to keep up with." — Walt Disney.

Walt Disney was a technological innovator, science fiction storyteller, and futurologist. He dedicated Tomorrowland with the words, "A vista into a world of wondrous ideas, signifying man's achievements ... a step into the future, with predictions of constructive things to come. Tomorrow offers new frontiers in science, adventure, and ideals: the Atomic Age, the challenge of outer space, and the hope for a peaceful and unified world."

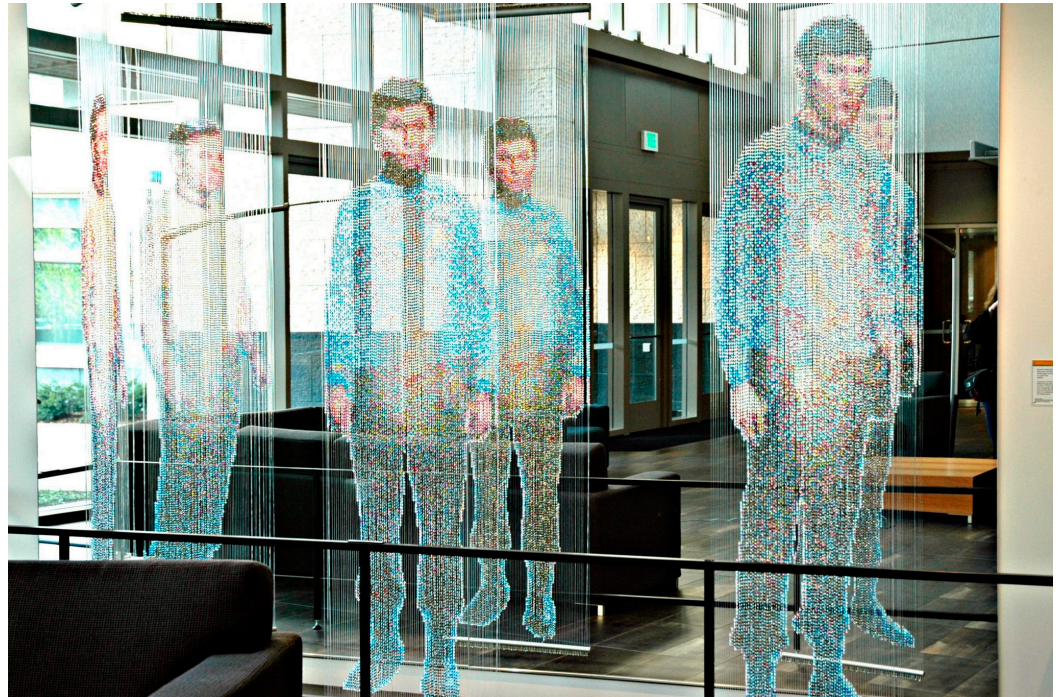
As part of the Disneyland television show, Walt presented three one-hour "science factual" episodes that mixed humor with hard scientific facts to give the audience an exciting glimpse into the future.

Let's contrast that protopian vision with the 2015 movie, "Tomorrowland". In the film, the antagonist sabotages humanity's vision of the future by beaming horrific prognostications and the imminent collapse of the human race into everyone's heads. And since our brains are wired to gobble up negativity and fearful information, the antagonist's broadcasts easily transformed humanity into a pessimistic and hopeless populace without will, purpose, or dreams.

Although the villain is a bit stereotypical, the theme and plot mirrors what's happening in our world today. Namely, that a constant fare of grim, paranoid, fearful apocalyptic programming can't be good for our heads.

NO FUTURE IS PERFECT

Hollywood movies and TV haven't always tilted toward dystopia. The classic sci-fi movie "2001: A Space Odyssey" had some dystopian themes (everyone remembers Hal) but it also portrayed the evolutionary development and limitless potential of the human species.



Two seminal futuristic narratives of the 1970s, “Star Wars” and “Star Trek”, also had some dystopian story elements but overall, they were positive narratives with hopeful endings. Star Trek narratives took on many weighty themes including racism, religion, genocide, extinction, mental illness, sexism, morality, death, and time travel.

And even though Star Trek took place in space, the stories were always allegories about life on Earth, which is why the Star Wars and Star Trek franchise have been charting a course for a hopeful future for half a century — while many dystopian themed programming have exhausted their storylines.

WHERE IS OUR LUCY?

Ironically, Star Wars and Star Trek were not easy sells. All but one studio turned Star Wars down and no major studio would touch Gene Roddenberry’s plan for a race and gender integrated crew representing the future of humanity. In fact, if it weren’t for Lucille Ball, there would be no Star Trek.

Lucy had just divorced Desi and was now running their independent production company Desilu. Star Trek was sold as a western in space, but the pilot was rejected by NBC. The series was dead. But, because Lucy was now swimming in profits from reruns from “I Love Lucy”, she did something unheard of. She paid for a second pilot and is credited as the main reason Roddenberry achieved his positive vision for the future.

Some might say dystopias are an easier sell and perhaps even easier to write. Or as British Sci-Fi writer Brian Aldiss calls them, “cozy catastrophe” stories. Many are basically horror stories with simple plots and clearly identified evil. Protopias on the other hand build plotlines calling for deeper multidimensional layers, character development, and complexity.

POSITIVE SIGNS: IT CAN BE DONE

Cory Doctorow is one of the most relentless and inventive authors writing at the junction between speculative fiction and real tech. Doctorow is on a mission to inspire positive futures. “Protopia is not the assumption that nothing will go

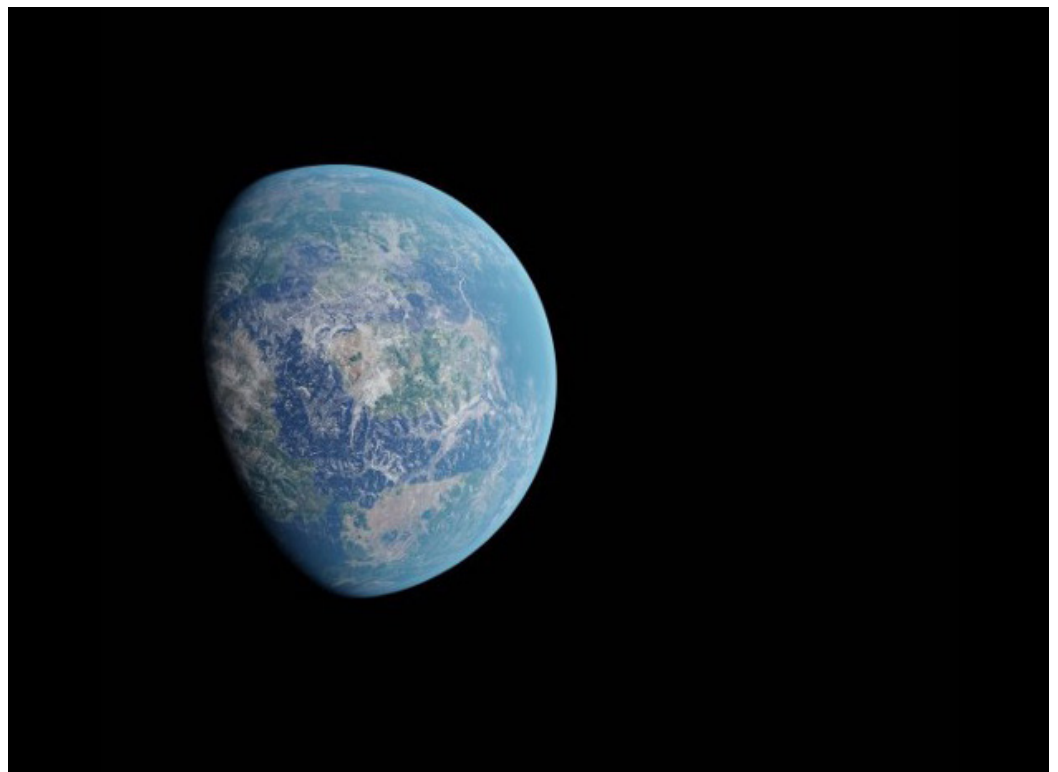
wrong. Being hopeful means believing that when things break down, we can rebuild them. It's still possible to model positive future outcomes and have a dramatic story." Doctorow adds, "Disasters are where we rise to the occasion. They are humanity's best moments, when we sacrifice ourselves for others."

This is one of the things we addressed in the documentary, "It's VUCA. The Secret To Living in the 21st Century", that in time of great chaos and uncertainty, people have always demonstrated the greatest fortitude, resilience, courage, and empathy for each other. Things go wrong. People make mistakes and disagree, especially concerning the criteria used to govern technologies or how to deal with big complicated, future challenges — but we figure it out.

A shining example of a Protopia film is "Arrival" directed by Denis Villeneuve based on the short story "Story of Your Life" by Ted Chiang. It's about a linguist enlisted by the United States Army charged with learning how to communicate with extraterrestrials that have arrived on Earth before tensions lead to an intergalactic war. "Arrival" not only provides a window into what communicating with other sentient species might look like, but it also portrays aliens as bent on saving humanity rather than annihilating it.

THE POWER OF A SINGLE IMAGE

Even a single image can change the story.



In 1966, the world was consumed by pictures of mushroom clouds and atomic bomb tests. The images of the nuclear blasts made people feel that civilisation was doomed. Being a photographer and activist, Stewart Brand knew that images change people's behaviour. So he began a campaign for NASA to release an image of the whole Earth in space.

Brand even made-up buttons that asked, "Why haven't we seen a photograph of the Whole Earth yet?" When NASA finally released the image of the Whole Earth taken by NASA astronauts, this single, hopeful, beautiful image blew away the dark atomic clouds.

People not only saw a brighter future but it helped create what became the transformative ecological movement. We were no longer passengers on a planet, we were the crew and responsible for its wellbeing. This one image changed the story from humanity is capable of destroying itself with technology to humanity is capable of discovering itself.

SIXTY SECONDS TO PROTOPIA



As a branding and storytelling expert, I've had first-hand experience with the power of story and messaging. One of the best examples is Apple's "1984" considered the greatest TV commercial ever made. It opens in a dystopian world that's disrupted by a singular woman who hurls a sledgehammer at a giant screen displaying the Big Brother broadcast — destroying it. Not only did the revolutionary ad almost single-handedly bring computers into the mainstream, changing the world as we know it, but it defined in our minds Apple's protopian vision of the future of technology.

We now envisioned computers as empowering individuality and saving humanity from a bleak future of control. A control represented at the time by the giant computer behemoth Big Blue or IBM. Today, Apple is the most valuable company in the world whereas IBM no longer sells personal computers and is one-tenth the size of Apple. It's a stark example of how the stories we tell about the future contribute to how we imagine the future, which in turn *can* become reality.

BRINGING THE FUTURE HOME

Kevin Kelly, the founding executive editor of Wired and former editor and publisher of the Whole Earth Review (the descendant of Stewart Brand's Whole Earth Catalog) postulates, "Perhaps at this stage in civilization and technological advance, we enter into permanent and ceaseless future-blindness. Utopia, dystopia, and protopia all disappear. There is only the Blind Now."

Kelly continues to hope that our current future-blindness is only a passing phase that future-blindness is not an inescapable or permanent affliction of our modern world, which brings us back to storytelling.

Once Upon a Time in America we were so excited and awestruck by the possibilities of the future that we celebrated progress with a worldwide story known as The World's Fair The 1939 New York World's Fair featured "The World of Tomorrow" and people came back from it proudly sporting buttons that said, "I Have Seen the Future."

I grew up in Seattle where The Century 21 Exposition in 1962 (also known as The Seattle World's Fair) saw the construction of the Space Needle, now the iconic symbols of The Jet City. Century 21 featured a futuristic monorail and a trip to a better "World of Tomorrow" which, ironically, was during the height of The Cold War. "The World of Tomorrow" began with a ride in the Bubbleator, a 19-foot diameter spherical Plexiglas elevator. General Electric and Johnson's Wax built model home interiors that brought the future home. It explored the life of the woman of tomorrow, featuring a household with "push-button ease" for everything but changing the baby.

World's Fair's partnered with leading American companies and entertainment companies to educate people about the future. At the 1964 New York World's Fair, Disney debuted four major attractions including Ford's Magic Skyway, It's A Small World sponsored by Pepsi-Cola/UNICEF, Great Moments With Mr. Lincoln from the State of Illinois, and General Electric's Progressland. These attractions eventually became part of Disneyland's Tomorrowland. And, following their success, Walt moved forward with Project X, which would become EPCOT — the Experimental Prototype Community of Tomorrow.

These World's Fairs helped humanity visualize, celebrate, and physically experience technological progress and the benefits of the future. Unfortunately, the last World's Fair in the United States took place in 1984.

A WAY FORWARD: URGENT OPTIMISM

Jane McGonigal from The Institute For The Future believes, "This is a time for urgent optimism." We need to flip the script on the dark future otherwise heading into the unknown has little value. In other words, we have to believe the struggle is worth it. But to do this, the future needs champions.

Whether the story is presented by an entertainment company, a corporation, a city expedition or an individual with a vision, we need to embrace Protopia narratives and experiences. Stories that become a force for The Good Future and positive stewards of renewed optimism. By guiding the world toward a more realistic view of the future, we empower people, especially younger generations, to believe things are getting better, not worse — and give them hope and inspiration that they can meet the grand challenges of tomorrow.

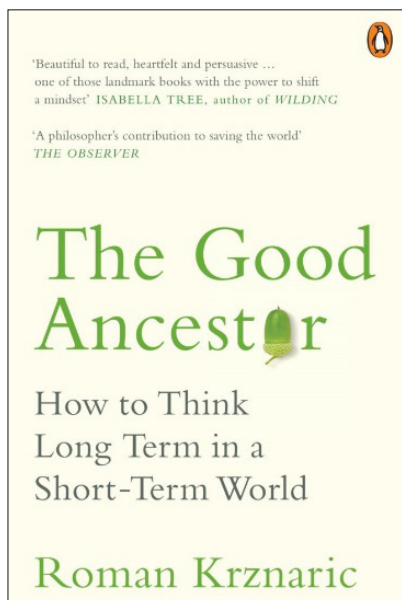
Today, young people are chronically pessimistic and depressed about their future. In a recent survey of 16 to 25-year-olds in ten countries 70% said, "humanity was doomed", which is why it's more important than ever to behave as if the world is evolving not collapsing. It only takes one person with the vision and the right story to change the consciousness of the planet.

As Barbara Hubbard said, "How we see the future determines our story, how we act, and become." Let's uplift imaginations toward the unimaginable possibilities and abundance ahead. Let's reverse fear and the dystopian zeitgeist by creating stories that can change the world for the better and inspire bold vision and ambitious action. And empower people to become the heroes of tomorrow's stories.



Chris Nolan is a multiple Emmy winning director-writer, author, story + branding expert. His latest film is *It's VUCA: The Secret to Living in the 21st Century*.

The Good Ancestor by Roman Krznaric



Book Review

by Charles Brass

Roman Krznaric is an Australian-born public philosopher, whose books have focused on the power of ideas to change society and have been published in over 20 languages. He was named by The Observer as one of Britain's leading popular philosophers. This is his most recent book, published in 2020. The sub-title alone should attract it to any future-focused thinker, and a quick read of the chapter headings makes it even more attractive. A book that inspires reading is a good book. A book that inspires thought is a better book. A book that inspires action is the best book of all. *The Good Ancestor* is the best book of all.

What does it mean to be a "good ancestor"? Are there ways to internalise the rights of unborn future generations in our legal and economic frameworks? And perhaps most critically, why is it important to do so? These are just some of the questions esteemed philosopher Roman Krznaric sets out to answer in his book, *The Good Ancestor*, diving into the thorny and insofar little-explored field of intergenerational ethics. As the consequences of short-term thinking threaten our environmental, social and economic stability, Krznaric proposes that we begin thinking long-term, not in terms of years or decades, but to plan with the centuries and millennia to come at the forefront of our minds.

The ability to think long term is far from impossible for humans; we are in fact the only species known to be able to plan for projects and goals that will never be completed in one lifetime. This is what Krznaric terms

'cathedral thinking,' inspired by the magnificent cathedrals of Medieval Europe that were built over the course of several centuries. Our ability to think long term has, in fact, enabled the greatest accomplishments of humanity, including building cities, voyaging to outer space and creating complex societies.

But the modern age has hindered our ability to think long term and remember that what we do today will affect the world and its inhabitants far beyond our lifetimes. "We recognise as human beings that our actions do impact future generations," Roman Krznaric told Earth.Org in a recent interview, "yet those generations do not have much say in our present political systems or economic structures."

When we are inclined to give into instant gratification, we tend to forget or ignore the consequences. Humanity's impacts on the living planet are likewise actions motivated by a short-term mindset that fails to plan further into the future. The act of burning fossil fuels, for instance, allows humans in the present comforts that are instant yet ephemeral, and dismiss the impacts such actions will have on the next generation, and the many more that will hopefully come.

Krznaric describes these short-sighted acts as 'colonising the future,' and his remedy is for us to radically change our thinking. We need to understand deep time humility; that humans have been alive for a relatively miniscule number of years compared to our planet's age and how long it has

been harbouring life for. We must recognise that the number of people who are alive today are a fraction of the number of humans that have walked the Earth throughout history, which is itself a fraction of the total number of humans we can expect to be born over the coming millennia. We need to acknowledge that our children and their children will need access to the same basic resources we do now, but climate change and biodiversity loss will make life on Earth comparatively unbearable for them.

Long-term thinking cannot only be a cultural shift; it needs to ignite widespread changes in the ways our governments and markets function. “You can have all the sustainable development models you like, but if your political systems are caught in short-term cycles, it’s going to be very hard to put that stuff into practice,” Krznaric told us. Long-term thinking needs to become a crucial part of how decisions are made at a political and corporate level.

Roman Krznaric places the spotlight on some changes that are appearing on the horizon, such as the city-level policy advisory committees in Japan that base recommendations on the imagined perspectives of citizens in 2060. China, with its longer-view socio-economic plans and singular ruling party, could be considered a form of governance that practices long-term thinking.

In terms of the feasibility of his proposal, Roman is hopeful, not optimistic, that we can pull ourselves back from the brink that our short-term mindset has brought us to. He recognises that transforming our economies and transitioning towards sustainability is a difficult task, but he is also hopeful that humans recognise an urgent need for such action.

But how can people be convinced to adopt this urgency? Past appeals

to acknowledge the damage that humans are doing to our planet have not been as successful as hoped, with obstructionists and inactivists slowing the decisive action needed. But perhaps Roman’s formula can be more effective. If there is one thing that unites decision makers from all countries, professions, political inclinations and religious beliefs, it must be love for their family. If the business leaders and policymakers acknowledge that our short-sighted decisions will be of tremendous harm to their children and grandchildren, the people that they know and care for the most, perhaps this will provide the last push needed to spur more ambitious action.

I doubt anyone would agree with everything Krznaric has to say. But I also doubt anyone would disagree with his main point: we need to give consideration to the future inhabitants of this planet. What we think, what we do, what we want — we need to put the long-term ahead of the short-term. Decisions need to be based on how they affect those who have no voice. We need to stop discounting the future if there is to be a future at all.

Deep-time humility is recognizing that humans are an infinitesimal mote on the wheel of time. Humanity is not special nor even much necessary. The world has gotten on without us for most of its existence; it’s likely it will go on without us long into the future. Moreover, elite modern humans — the ones that have been causing all the problems — are a very small subset of humanity in both time and numbers. Humans have existed for hundreds of thousands of years; most of that time we were merely one species embedded in a world of billions. Krznaric encourages us to sit with this for a while, to let it permeate our perspective.

FUTURISTS IN ACTION

CONTENT OR CAPACITY: SCOPING FUTURES PROJECTS

by Wayne Pan



Wayne Pan is Research Director at the Institute for the Future

It seems likely that we are in a renaissance for futures thinking. There is more genuine interest, widespread and general, in futures and foresight work than at any point during the ten-plus years in which I've had direct experience in the field. No doubt the volatility and uncertainty over the past two-plus years, through COVID and a myriad of other unpredictable — but not unimaginable — events has had an impact on the perspectives of decision-makers.

This newfound interest in foresight is a positive development but it brings with it a core challenge, especially for those undertaking foresight projects with little past experience, which is when and how to actually use foresight.

As foresight practitioners, we must consider how and when to best use foresight, so as not to — in our well-intentioned push to incorporate foresight into our work and decision-making — create a mismatch in what organizations want vs. what they need; in what their expectations are vs. what we can accomplish; and what their ambitions are vs. what they can actually accept. Intentional or not, foresight projects are often asked to do things they cannot or should not do, leading to projects that fall flat or “fail.” The resulting skepticism about futures thinking as a whole does more harm than good; thus where and how we decide to deploy foresight is equally important to the work we do.

Or more simply, while all strategic projects should somehow be infused with foresight, not all projects need to be foresight projects.

What exactly does this mean, in practice? How do we address those mismatches that we can unwittingly create? How do we more effectively deploy foresight where it can make the greatest difference?

For me, I like to start by addressing those potential mismatches head on anytime I'm scoping a project out. I ask: “What is the actual impact we can make? What decisions are we hoping to influence – if any? What outcomes are aspirational, and what outcomes are necessary?” Being painfully realistic about these answers is key, especially when our stakeholders may not have the experience needed to properly set expectations.

For us as practitioners, these answers will help us to properly scope our projects. We need to remain hyper-focused on the influence the project should have, if we want to ensure that our foresight work is effective, impactful, and successful. Although it's wonderful when projects can be scoped to cover everything in one go, in reality that is fairly rare. More commonly, **projects have limited budgets, limited scope, and if we're honest, limited impact.** It's incumbent on us to make sure that we adjust our work and efforts to realistically maximize the impact we can have – which means focusing our projects more tightly.

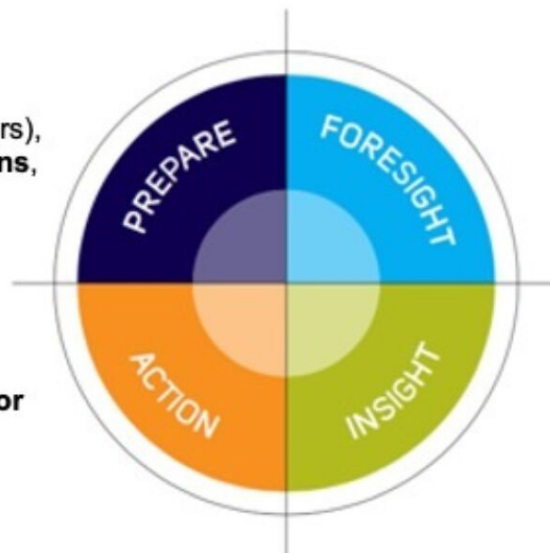
SO, HOW DO WE DECIDE WHAT TO DO?

One way I like to think about how to differentiate between types of projects is to consider if the work will be centered around content, or around capacity. In other words, will the creation and sharing of foresight content be what drives the project forward and help define success, or will the capacity of teams to utilize foresight in order to drive strategy and tactics be central to success?

In the Institute's Prepare-Foresight-Insight-Action cycle (see below), this roughly corresponds to a break between the top of the circle and the bottom of the circle. Content projects will focus more on the Prepare and Foresight parts of the cycle, while Capacity projects will require more time in Insight and Action.

The Cycle of Strategic Foresight

1. **PREPARE:** Gather your **evidence** (signals and drivers), frame your **future questions**, prepare your mind.



2. **FORESIGHT:** Develop **plausible, compelling, provocative** narratives and visions of multiple futures – **not predictions**.

4. **ACTION:** Frame and **prioritize** possible actions for **today**.

3. **INSIGHT:** Generate **new ideas** and **meaningful implications** for yourself, your organization, your team, your family, etc.

CENTERING CONTENT

In the first case of centering around content, the bulk of effort in a project should go towards crafting plausible and provocative forecasts. Obviously, there will be a lot of time and effort allocated towards developing scenarios, narratives, forces, or other forms of forecasts that will inspire people to think differently. But equally importantly, because the foresight developed will need to survive scrutiny and skepticism, these projects will require sufficient effort to gather the building blocks that underpin your foresight – doing the horizon scanning, expert interviews and workshops, and primary research (when applicable).

It also means putting in the time to adequately prepare your team and stakeholders to engage with your foresight. Exercises like “Look Back to Look Forward” or “Frame Future Conversations,” from the IFTF Foresight Essentials Toolkit, can be great ways to bring stakeholders along without requiring too much time investment.

For content projects, the end deliverables will often take the form of some sort of share-out or experience built around your foresight. At the Institute, many of our past Maps of the Decade are great examples of what a content-centric project looks like.

A more immersive example, complete with physical experiences in the real world, can be seen in the Hawaii in 2050 project by Dr. Jake Dunagan and Dr. Stuart Candy.

CENTERING CAPACITY

In the second case of centering around capacity, the value does not come from the foresight content as much as it does from the ability of your team to harness the insights and provocations that come from foresight. In other words, these projects are focused on building or tapping into an organization's capacity to utilize foresight to promote transformative action.

In practice, this often means that while these projects will take foresight as inputs into workshops, strategy meetings, or planning sessions, the bar for foresight is lower than in a content project. I would argue that in these projects, “good enough” foresight is good enough. Instead, the important work is to help stakeholders internalize lessons from that foresight, challenge their existing assumptions, and more confidently make decisions with a long-term perspective in place. Investment into creating the space needed to bring teams together, foster collective exploration and immersion, and have the conversations that can yield insights and realizations is critical.

Although it is harder to point to public examples of this type of work, it is not hard to describe. Consider innovation-focused projects where facilitators are putting foresight inputs in front of non-foresight practitioners and asking them to find new whitespaces or business models to consider. Or an organizational strategy project that is considering how to structure a company for the future of work. These could both be more “capacity-centric” projects where foresight is a key input, but participants might not have practical experience with foresight content.

There is a lot that goes into scoping a foresight project well. Not only are there many types of foresight projects, there are many approaches. Thinking through where the center of gravity for your project should be — content or capacity — can be a good starting point as you begin to plot out your efforts and hone in on the activities that will result in the greatest impact. In the end, it's worth the time and effort. Not only will a well-scoped project be more likely to succeed, it will be more likely to build goodwill and confidence throughout the organization for the type of work that we want to do. Remember, building a futures thinking mindset takes time. We can't rush it, nor should we.

Signals in the Noise

THE 5 BIGGEST ARTIFICIAL INTELLIGENCE (AI) TRENDS IN 2023

by Bernard Marr

Over the last decade, Artificial intelligence (AI) has become embedded in every aspect of our society and lives. From chatbots and virtual assistants like Siri and Alexa to automated industrial machinery and self-driving cars, it's hard to ignore its impact. Today, the technology most commonly used to achieve AI is machine learning advanced software algorithms designed to carry out one specific task, such as answering questions, translating languages or navigating a journey – and become increasingly good at it as they are exposed to more and more data.

Worldwide, spending by governments and business on AI technology will top \$500 billion in 2023, according to IDC research. But how will it be used, and what impact will it have? Here, I outline what I believe will be the most important trends around the use of AI in business and society over the next 12 months.

THE ONGOING DEMOCRATIZATION OF AI

AI will only achieve its full potential if it's available to everyone and every company and organization is able to benefit. Thankfully in 2023, this will be easier than ever. An ever-growing number of apps put AI functionality at the fingers of anyone, regardless of their level of technical skill. This can be as simple as predictive text suggestions reducing the amount of typing needed to search or write emails to apps that enable us to create sophisticated visualizations and reports with a click of a mouse.

If there isn't an app that does what you need, then it's increasingly simple to create your own, even if you don't know how to code, thanks to the growing number of no-code and low-code platforms. These enable just about anyone to create, test and deploy AI-powered solutions using simple drag-and-drop or wizard-based interfaces. Examples include SwayAI, used to develop enterprise

AI applications, and Akkio, which can create prediction and decision-making tools.

Ultimately, the democratization of AI will enable businesses and organizations to overcome the challenges posed by the AI skills gap created by the shortage of skilled and trained data scientists and AI software engineers. By empowering anybody to become "armchair" data scientists and engineers, the power and utility of AI will become within reach for us all.

GENERATIVE AI

If you ask most people what they think AI is useful for, they will probably tell you that it's mainly for automating routine, repetitive tasks. While this is often true, a growing branch of the science is dedicated to building AI tools and applications that can mimic one of the most uniquely human of all skill sets – creativity.

Generative AI algorithms take existing data – video, images or sounds, or even computer code – and uses it to create entirely new content that's never existed in the non-digital world.

One of the most well-known generative AI models is GPT-3, developed by OpenAI and capable of creating text and prose close to being indistinguishable from that created by humans. A variant of GPT-3 known as DALL-E is used to create images.

The technology has achieved mainstream exposure thanks to experiments such as the famous deepfaked Tom Cruise videos and the Metaphysic act, which took America's Got Talent by storm this year. But in 2023, we will see it used increasingly frequently to create synthetic data that can be used by businesses for all manner of purposes. Synthetic audio and video data can remove the need to capture film and speech on video – simply type what you want the audience to see and hear into your generative tools, and the AI creates it for you!

Signals in the Noise

THE 5 BIGGEST ARTIFICIAL INTELLIGENCE (AI) TRENDS IN 2023

ETHICAL AND EXPLAINABLE AI

The development of more ethical and explainable AI models is essential for a number of reasons. Most pressingly, though, it comes down to trust. AI requires data in order to learn, and often this means personal data. For many of the potentially most useful and powerful AI use cases, this might be very sensitive data like health or financial information. If we, the general public, don't trust AI or understand how it makes decisions, we simply won't feel safe handing over our information, and the whole thing falls apart.

In 2023 there will be efforts to overcome the "black box" problem of AI. Those responsible for putting AI systems in place will work harder to ensure that they are able to explain how decisions are made and what information was used to arrive at them. The role of AI ethics will become increasingly prominent, too, as organizations get to grips with eliminating bias and unfairness from their automated decision-making systems. Biased data has been shown to lead to prejudice in automated outcomes that can potentially lead to discrimination and unfair treatment – which simply won't be acceptable in a world where AI plays a part in decisions involving employment and access to justice or healthcare.

AUGMENTED WORKING

In 2023, more of us will find ourselves working alongside robots and smart machines specifically designed to help us do our jobs better and more efficiently. This could take the form of smart handsets giving us instant access to data and analytics capabilities – as we have seen increasingly used in retail as well as industrial workplaces. It could mean augmented reality (AR)-enabled headsets that overlay digital information on the world around us. In a maintenance or manufacturing use case, this could give us real-time information that can help us identify hazards and risks to our own safety – such as pointing out when a wire is likely to be live or a component may be hot. Management and leadership teams will increasingly have

access to real-time dashboards and reporting, giving an instant up-to-the-minute overview of operational effectiveness. AI-powered virtual assistants will also become more prevalent in the workplace, able to quickly answer questions as well as automatically suggest an alternative, more efficient methods of accomplishing objectives. Overall, developing the ability to work with and alongside intelligent, smart machines will become an increasingly indispensable work skill. I would even go as far as to say that for many of us, it will go a long way towards mitigating the dangers of finding our roles becoming redundant!

SUSTAINABLE AI

In 2023 all companies will be under pressure to reduce their carbon footprint and minimize their impact on the environment. In this respect, the race to adopt and profit from AI can be both a blessing and a hindrance. AI algorithms – as well as all the infrastructure needed to support and deliver them, such as cloud networks and edge devices – require increasing amounts of power and resources. One study in 2019 found that training a single deep-learning model can result in the emission of 284,000 kilograms of CO₂. At the same time, the technology has the potential to help companies understand how to build products, services, and infrastructure in a more energy-efficient way by identifying sources of waste and inefficiency. Ongoing efforts to implement more green and renewable energy-powered infrastructure are also a part of the drive toward delivering more sustainable AI.

AI can be a driver of sustainability in other industries and areas of operation, too – for example, computer vision is used in conjunction with satellite imagery to identify deforestation and illegal logging activity in the rainforests, as well as illegal fishing activity, which impacts biodiversity in the oceans. This year, I expect to see a continued drive towards deployment of AI initiatives aimed at tackling some of the most pressing problems facing our planet – rather than simply in pursuit of increased corporate profits.

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Bernard Marr is a world-renowned futurist, influencer and thought leader in the field of business and technology. He is the author of 21 best-selling books (and winner of the 2022 Business Book of the Year award), writes a regular column for Forbes and advises and coaches many of the world's best-known organisations. He has over two million social media followers, over 1.2 million newsletter subscribers and was ranked by LinkedIn as one of the top 5 business influencers in the world and the No 1 influencer in the UK.