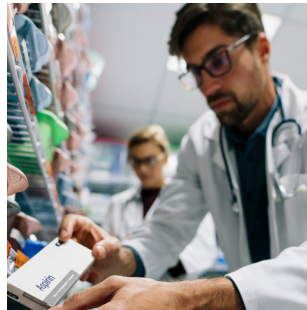


WORK FOR HUMANITY



Blue Sky Meeting Results **Developing a Common Vision for the Future of Work**



INNOVATION RESOURCE CENTER for HUMAN RESOURCES

This report is the summary of proceedings from **Work for Humanity**, a two-day brainstorming event sponsored by IRC4HR™ and the Institute for Human and Machine Cognition (IHMC) in June 2018. The meeting brought together eighteen experts from across disciplines to explore how we might use technology to help people do more valuable and meaningful work in an increasingly dynamic and unpredictable world.

The goals of the meeting were two-fold: craft a comprehensive vision for the future of work and chart a path for a new organization dedicated to putting the ideas into practice and proving their viability.

Led by Jen Gresham – a scientist, retired military officer, entrepreneur, and coach – this “Blue Sky” meeting produced provocative discussion, inspired thinking, and a creative set of potential solutions for developing a human-centered future of work and life. We invite you to learn more about this initiative at our website, www.irc4hr.org, or at www.workforhumanity.com, and to contribute your own ideas and feedback.

IRC4HR was founded in 1926 as IRC, a non-profit organization designed to promote positive employment relationships and advances in human resources management through consulting, research, and education.

More than 90 years later, the organization continues to bring together employers, academics, and other stakeholder communities to fund action research and share insights on a wide range of topics, including a current focus on the implications of technology and digital disruption on the future of work, organizations, leadership, and the workforce.



BLUE SKY RESULTS

JUNE 2018



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The nature of work is evolving. Anticipating what comes next won't be easy. Dramatic change is underway all around us: economic, demographic, political, and environmental. >>

The population in developed nations is aging, while the world's overall population continues to increase at an unsustainable pace. Between climate change and rising income inequality, most people are understandably concerned about how or even whether much of society will be able to provide for itself. Complexity breeds uncertainty, and life on Earth has never been more complex. Startlingly rapid technological advances in areas like artificial intelligence and robotics may hold the keys to solutions—or the seeds of even greater challenges.

Extrapolating from today's obstacles, it would be easy to get depressed about the future of humanity, and the future of work specifically. The problem with predicting the future, however, is not only that it's impossible, but that a pessimistic prediction encourages fear and helplessness. We shouldn't ask what the future holds but, rather, what would we like the future to be? The road ahead isn't a problem to solve; it's an invitation to create. This simple shift in mindset challenges every single one of us to become part of the solution. Indeed, building a future of work that serves us under these challenging conditions will require nearly everyone's contribution.

I believe we're up to the challenge.

I am Jen Gresham, a scientist, retired military officer, entrepreneur, and coach. Each of these experiences gives me a unique perspective on how work can enrich someone's life, not only financially, but intellectually, emotionally, socially, and spiritually as well.

As an entrepreneur and coach, I have helped people from all walks of life and from all around the world achieve extraordinary professional success on their own terms. Success means different things from person to person, and the path for achieving that success can take many routes. I have seen firsthand how powerful a person's psychology can be, whether it's propelling a person forward or holding them back.

Nowhere was the power of mindset on performance more apparent to me than during my service in the U.S. Air Force. Although my education was in biochemistry, my assignments included monitoring nuclear treaties, teaching college chemistry, managing technical programs in space lubricants and biofuel cells, crafting corporate communications for the Air Force Research Laboratory, and serving as the Assistant Chief Scientist for the Human Performance Wing. Twenty years in the Air Force taught me that with the right training and environment, almost anyone can do almost anything.

Moving into an uncertain future, I believe technology has the potential to help us tap into this human potential in new ways. This optimism was a major influence behind the first Work for Humanity Blue Sky Meeting, an event that brought together eighteen experts from across disciplines to explore how we might use technology to help people do more valuable and meaningful work in an increasingly dynamic and unpredictable world.

I did not intend to focus on the American workplace at first—this is a global issue—but limiting the number of participants to foster communication forced my co-host and me to choose between geographic and academic diversity. No doubt the results of the meeting were influenced by the opportunities and experiences of those present. Fortunately, by sharing our process, the approach can be replicated by others to provide results reflective of other regions of the world.



We set two goals for the Blue Sky Meeting. The first was to craft a comprehensive vision for the future of work which could be refined, tested, and then broadly adopted by the community. (To the best of our knowledge, there is no other such working document.) The solution space for this challenge is vast. It spans individuals to society as a whole, the human mind and body to its working environment. Many are doing innovative work within this space, but these individual efforts compete for funding, media attention, and, of course, customers willing to adopt a particular product or service. We hope this overarching vision for the future of work will help practitioners understand the larger ecosystem and how their own efforts can align to better serve humanity and create the future we want to live and work in.

The second goal was to chart a path for a new organization dedicated to putting our ideas into practice and proving their viability. While thought leadership is valuable, we want to make a real impact on the lives and livelihoods of workers. More work is required to fully develop potential business models but the immediate next steps are outlined in the Conclusions.

I'd like to sincerely thank our sponsors, the Innovation Resource Center for Human Resources and the Institute for Human and Machine Cognition, for making this event possible. I'd also like to thank our participants, listed below, for generously sharing their time and creativity. It's important to note that while I have shared the raw results from the collective efforts of the group in the Appendix, this summary and its conclusions are my own and may not reflect the opinions or beliefs of all involved.

What we are advocating is not easy or straightforward. Creating the future of work will require discussion, debate, experimentation, and collaboration among stakeholders. This report is intended to serve as a starting point for greater change ahead. I look forward to receiving feedback and suggestions from all the passionate and creative people we could not host at the initial meeting.



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- ✓ **Robert Davis**, Owner, Seaside Development Corporation
- ✓ **Joe Gomes**, Head Strength and Conditioning Coach, Oakland Raiders
- ✓ **Andrew Taggart**, Practical Philosopher and Founder of Askole
- ✓ **Chris Martenson**, CEO, Peak Prosperity
- ✓ **Martin Levin**, Attorney
- ✓ **Morley Stone**, Senior Vice President for Research, the Ohio State University
- ✓ **Pascal Lee**, Director, Mars Institute

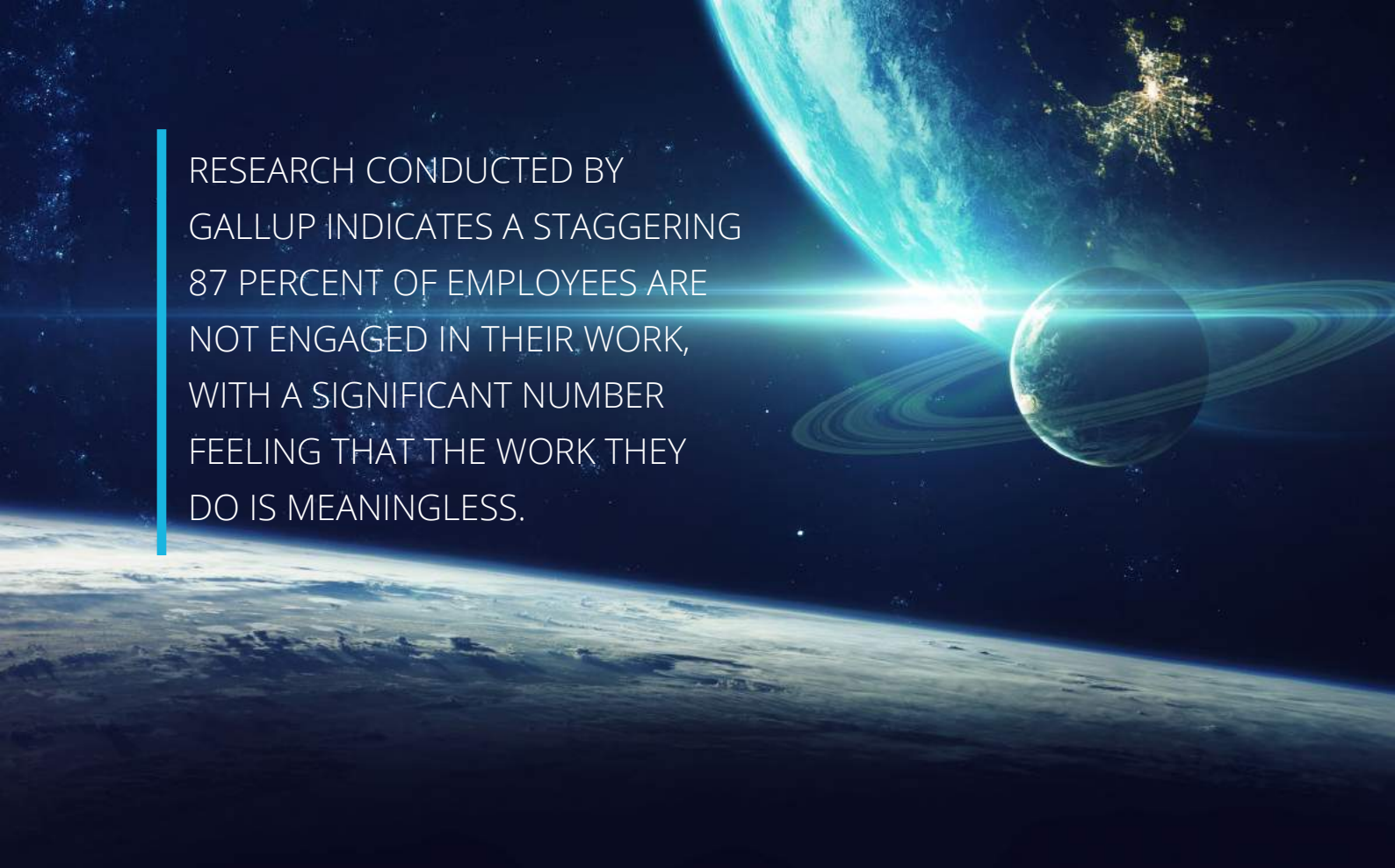


THE CHALLENGE

The future of work lies at the nexus of employment practices, education theory, individual psychology, and technological development. One of the biggest challenges we faced in designing a productive Blue Sky meeting was narrowing the focus and framing our discussion. >>

Predictions about the development and impact of technologies such as artificial intelligence and autonomous machines have dominated many discussions about the future of work. Many fear that large numbers of jobs will be lost. The more pressing question is the degree to which these jobs will be replaced over time, and the nature of that new work. Although AI can refer to both artificial intelligence and augmented intelligence, the two perspectives are distinct. Artificial intelligence aims to replicate human abilities, while augmented intelligence aims to complement and enhance human abilities. Meeting co-host Ken Ford has written on the topic of human-centered augmented intelligence and the opportunity we have to develop more powerful cognitive orthoses. Cognitive orthoses—tools that extend or amplify existing human cognitive abilities—are not merely modern contrivances. One could argue that writing, for example, is an orthotic that allows humans to extend their ability to store and retrieve information. Today, cognitive orthotics have the potential to reduce complexity and uncertainty while improving the degree of individual fit. These ideas about the ways workers and technology can complement one another were central to our thinking.

For almost two hundred years, wages tracked with productivity. Intuition suggests that a rising tide of technical progress would lift all boats by making workers more productive and therefore more valuable. However, despite staggering technological advances, wages have stagnated for decades, suggesting a decoupling of wages and productivity. According to the April 2017 World Economic Outlook of the International Monetary Fund, the share of national income paid to workers has been falling since the 1980s across advanced economies. Even with historically low unemployment rates, inflation-adjusted wages are significantly lower than they were prior to the 2008 financial crisis.



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Despite early predictions that technology would enable society to work less, causing fears of a “leisure crisis,” just the opposite has happened. According to Boston College sociologist Juliet Schor, Americans were working five more weeks per year in 2000 than they did in 1967. The Organization for Economic Co-operation and Development ranked the U.S. twenty-third out of twenty-three countries for work-life balance.

This counterintuitive disconnect between increasingly “smart” technology and an expanding to-do list for the human workforce has many roots. Wage stagnation and thus the need to work more to earn the same amount is partially to blame. But so too is a trend toward an increase in shadow work. For example, many admin and support roles have been eliminated with the advent of word processors and travel scheduling software, but people still do the work of administrative assistants. Many of these tasks have simply been distributed to the remaining workforce, without an increase in pay or a reduction in existing work.

Even our primary roles are increasingly unsatisfying. Research conducted by Gallup indicates a staggering 87 percent of employees are not engaged in their work, with a significant number feeling that the work they do is meaningless. This stagnation has a human cost. Surveys show that stress and anxiety levels are rising sharply year over year. The state of the workplace plays an undeniable role in this trend. Stress has a strong correlation with chronic disease, as high as 75 percent by some estimates. Faulty coping strategies such as overeating, under-exercising, and alcohol/drug abuse, are also steadily on the rise, only exacerbating the problems that led to their use in the first place.

This is not to discount or dismiss the enormous progress the world has made over the last several decades, particularly in the reduction of extreme poverty and the improvement of medical care. However, when it comes to the human experience of work, we are clearly further away from the ideal than ever. In our rapidly evolving world, the way we decide to work will have profound implications for our health and well-being in the future.



Having looked closely at the challenge, we decided to make certain explicit assumptions to foster the most productive discussion possible: >>

1. Work is a fundamental human need. Jobs are a product of our modern economic construct. While we do not know how jobs will change in the future, we are confident the desire to provide valuable, meaningful work will remain.
2. Machines are unlikely to make humans obsolete in the workplace. More important, humans have the ability to decide what technology is developed and how it is used. We cannot and should not discount the role of human agency.
3. Society underestimates the capacity of individuals and individuals frequently underestimate themselves. For this reason, psychology plays a critical but under-appreciated role in the solution space.
4. Policy, while important, is already discussed and debated elsewhere. We elected to leave government-driven solutions out of the meeting discussions.
5. The future of traditional education is integral to the future of work but deserves its own event. We limited our discussion of the subject to self-guided learning.

All of this led us to the following challenge:

How can we leverage technology to help people perform more valuable and meaningful work in a dynamic and unpredictable future?

We chose this wording carefully to stress three primary ideas:



“Leverage technology.” Instead of framing technology as a threat to human agency and usefulness, we decided to see it as an opportunity to elevate human capacity and free individuals to engage with more interesting and complex tasks.



“More valuable and meaningful work.” The best work provides a sense of challenge, mental and social engagement, autonomy, and personal growth, combined with the opportunity to positively impact others.



“Dynamic and unpredictable future.” Much of the conversation on the future of work has focused on the impact of technology and its potential to eliminate jobs. No matter how intelligent or nimble machines become, there will always be work for humans to do, if they want to do so. More important, the focus on technological disruption is too narrow. It sidelines other trends of critical importance, including an aging population, increasing income inequality, climate change, and urbanism, among others. The future’s only certain aspect is its increasing dynamism and unpredictability. As a society, we are unprepared for the pace of change we will all face in the near future.

Despite the care the meeting organizers put into it, the very first action we took in the Blue Sky Meeting was to invite participants to challenge the challenge itself. We asked them whether it truly captured what was most important, what was missing, and how we might say it better.

The responses fell into distinct categories:

What do people want from their work?

There was a strong thread questioning our current assumptions about what makes work “valuable and meaningful.” Thus far, technology has largely diminished leisure and thoughtful reflection. There was consensus that the best work resolves this issue while also finding ways to help people live with purpose and identity in alignment with their values.

There was significant discussion about the challenges that stem from the conflation of work to secure the necessities of life with work that satisfies the desire for personal accomplishment and purpose. We talked about what the challenge statement might look like if we were to disentangle livelihood from sense of self and meaning. This would most likely require a change to our current economic systems.





What do people need from their work? According to Bloomberg’s Shift Report, “people who make \$150,000 a year or more say they value doing work that is important to them. Everyone else prioritizes an income that is stable and secure. Yet fewer than half of Americans earn a stable amount every month.” If our solutions don’t account for requirements like housing, health, and security, we risk addressing only secondary concerns for the majority of workers.


How can we look beyond the individual? Another point of discussion was the lack of a societal commons element in the initial challenge. Many felt that work should not only benefit the individual and the organization, but also society. Lack of such an ethos has been a source of many of the challenges we face today.

These inputs were difficult to integrate into a single and succinct challenge. We ultimately decided to reword it as follows:

How might work be transformed to provide individual and societal net positives?

Our thinking here was to focus on the transformation of work itself, rather than leveraging technology per se. This aligned better with the goal of drafting a specific vision for the future of work. Our widened focus would allow us, for example, to consider organizational and cultural changes that might have little to do with leveraging technology.

The inclusion of individual and societal net positives made it possible to consider both immediate needs as well as loftier desires for leisure, reflection, and purpose at the individual level, without losing sight of the needs of the collective. Moving from “valuable and meaningful” to a “net positive” also acknowledges that a net positive for one individual may be quite different from another’s, particularly across cultures and economies. Finally, “net positives” implies there will be trade-offs in any system. While we aim to radically transform work, we aren’t likely to produce a utopia.



DEVELOPING A COMMON VISION FOR THE FUTURE OF WORK

In the Stanford Social Innovation Review, John Kania and Mark Kramer lay out a systems approach for large-scale social change. They emphasize the necessity for nonprofits, businesses, government agencies, and the public to band together in order to tackle complex problems like the future of work. >>

This is contrast to the established tendency of social change efforts to focus on the isolated interventions of individual organizations. Kania and Kramer describe five conditions for collective success across diverse stakeholders: “A common agenda, shared measurement systems, mutually reinforcing activities, continuous communication, and backbone support organizations.”

To the best of our knowledge, the future of work community is missing a shared vision that answers the question, “What do we want the human experience of work to look like?” while leaving open the possibilities for creating it. We identified seven elements that provide a comprehensive vision for the future of work.

- 1. Work is rewarding and enjoyable.** Work has a positive connotation and is something most people look forward to doing. Work enriches lives not just financially, but also intellectually, socially, emotionally, and spiritually. Workers are generally healthy, happy, engaged, and satisfied with the impact and importance of their work.
- 2. Work is high-value.** Machines perform the majority of low-skill and low-value tasks. There are no longer any status distinctions between manual or knowledge work, since nearly all human work is high-value and thus well compensated. This results in a relatively low dispersion of incomes between professions.
- 3. Work is fluid.** Organizational structures vary widely based on size, industry, and other factors. They can rapidly adapt to accommodate changing market conditions. Workers are primarily hired for their ability to learn, innovate, and evolve with changing roles and tasks. A culture of continuous self-learning, curiosity, and an acknowledgement that our most relevant learning happens on the job reduces the financial, social, and psychological barriers to career progression.



4. **Work is flexible.** Work is performed as much or as little as desired. The hours and patterns of work will vary widely between individuals and over one's lifetime. There are no penalties for such variety because augmented intelligence in conjunction with a habit of self-learning accelerates re-entry into work whenever desired. Workers enjoy adequate time for rest, leisure, and thoughtful reflection, all of which support a healthy work life.
5. **Work is collaborative.** A culture of collaboration and shared responsibility for the entire team/organization as well as society as a whole is commonplace. Machines amplify the strengths of humans and minimize their weaknesses, and vice versa, creating a virtuous cycle of improved outcomes for less time and effort. Augmentation is tailored not just to the task, but to the individual or machine accomplishing the task, accounting for changes in conditions that impact either's performance. Because there is an abundance of both work and workers, intelligent systems can dynamically redistribute tasks among teams to promote well-being and results.
6. **Work is a low-risk endeavor.** Because distributed human/machine teams can self-assemble to tackle complex problems at low cost, companies are able to experiment with new models, organizations, products, and services with ease. This allows workers to curate and choose from an abundance of financial and intellectual opportunities on demand. Digital transparency and cognitive orthotics increase trust and improve decision-making of distributed teams, providing workers a high level of individual agency, whether they are an employee, entrepreneur, or contractor.
7. **Work supports the greater good.** Ethical advisors help companies navigate the complex trade-offs and potential unintended consequences of their decisions, particularly during development and implementation of intelligent technologies. Access to a rich variety of data streams allows the needs and desires of shareholders, workers, customers, and communities to all be accounted for in decision-making process. The market incentivizes solutions that benefit multiple stakeholders while reducing harm.



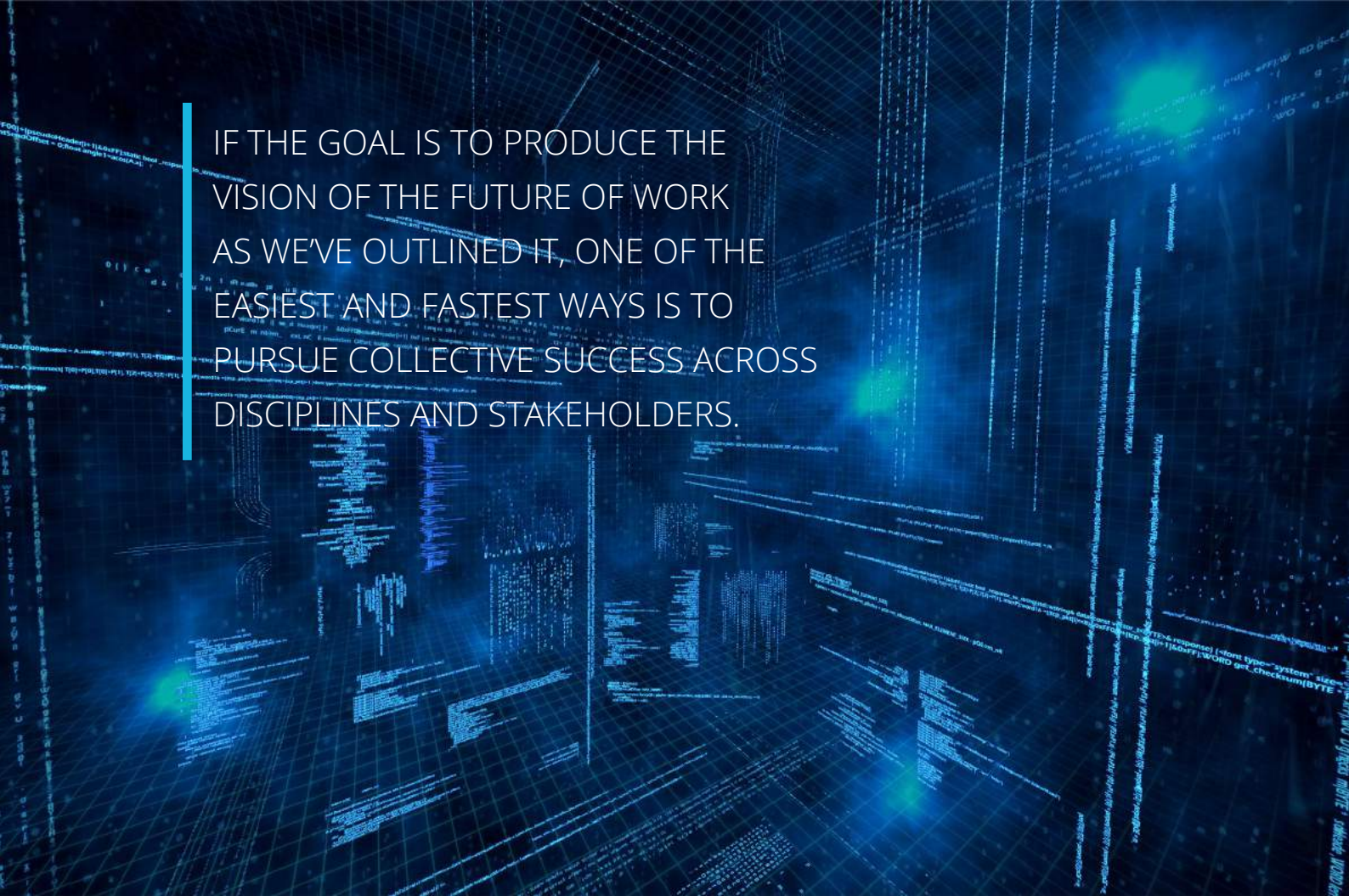
The field of artificial intelligence was born out of a desire to design machines that could replicate human capabilities. >>

While certainly a compelling challenge for the science and engineering communities, this founding motivation has had profound implications on how we conceive of and develop innovations at work. As Korn Ferry discovered in a 2016 survey of 800 global business leaders, 67 percent said that technology will create greater value in the future than people. It's no wonder then that research has found that about one-third of people are fearful of AI, and nearly one-fourth believe the technology will harm society.

Although certain elements may exist within individual organizations, the vision for the future of work as we have described it remains a long-term ideal for most at this point. If we are to ever to turn our vision for the future of work into reality, there are a number of challenges that will require more attention and action within the community:

1) Changing the narrative is imperative. Our current cultural narrative about the role work plays in our lives and economy was shaped by the dawn of the Industrial Age. People have largely seen themselves as a cog in a machine for profit and production, leading multiple generations to equate work with a paycheck as a means of survival. For their part, businesses have primarily focused on technology development as a means to increase productivity and scale.

The vision for the future of work that we've laid out here will likely seem fanciful to many at first glance. Others may argue we have not been bold enough. What holds us back is a negative perspective of AI and automation, which encourages us to see intelligent machines as an adversary rather than a collaborator or a tool for human augmentation. We must help both business leaders and workers see the potential benefits technology offers, as well as their own responsibility for creating a better future.



IF THE GOAL IS TO PRODUCE THE VISION OF THE FUTURE OF WORK AS WE'VE OUTLINED IT, ONE OF THE EASIEST AND FASTEST WAYS IS TO PURSUE COLLECTIVE SUCCESS ACROSS DISCIPLINES AND STAKEHOLDERS.

The stories we tell each other and ourselves shape our beliefs, our priorities, and our experiments. We'll have to collectively believe in our wish list if we hope to make it come true. Changing the cultural narrative will require a large scale, concerted effort with a common communications plan. The vision we have created, once refined within the community, could serve as a starting point for that plan.

2) The future of work is a systemic challenge. Lewis Thomas, the award-winning medical essayist, observed, "When you are confronted by any complex social system ... with things about it that you're dissatisfied with and anxious to fix, you cannot just step in and set about fixing with much hope of helping. If you want to fix something you are first obliged to understand . . . the whole system. This is one of the sore discouragements of our time."

The way we prepare for, organize, experience, and measure the success of our work is a direct result of the socio-economic system we have created. This is good news because, if we created the system, then we have the power to change it. What's missing is a good understanding of the various components of the system, who the stakeholders are, and how they interact and impact one another. Without this, we are very likely to address symptoms rather than root causes, pursue solutions that achieve short-term gains that undermine longer-term impacts, and often produce negative unintended consequences. This explains why the human experience of work remains largely unchanged despite significant technological advances over the last 50 years intended to reduce the drudgery of work. If the goal is to produce the vision of the future of work as we've outlined it, one of the easiest and fastest ways is to pursue collective success across disciplines and stakeholders. Although implementation will almost certainly happen at the micro level, a common agenda with shared metrics and tools that improve communication and collaboration across the system will also be required.

3) More experimentation is needed. Our vision indicates some fairly radical changes are necessary. Experimenting with what works within one's industry, organization, or career might feel like a high-risk endeavor under our current economic system. To catalyze more experimentation, we'll need to invent models and spaces for businesses and workers to play with new ways of working. This might be as straightforward as the creation of a skunk works operation within an existing company. For example, Capital One has established the "Garage," an innovation center where staffers aren't given any specific orders, just general guidance to "massively improve our consumers' experience with our product." Or it could involve the creation of an alternate economy, where people and businesses can experiment with new ideas without risking their current livelihoods. However it's accomplished, there would be significant benefit in capturing and sharing these experiments more widely as they are performed in order to catalyze a culture of evolution and adaptation.

4) Augmented intelligence, not artificial intelligence, needs to become the central design principle for technology. The real benefit of AI and automation from a societal standpoint is its ability to eliminate the menial and mind-numbing tasks that have historically required human effort, freeing large segments of society to perform more interesting, valuable, and meaningful work. The responsibility for the shift from artificial intelligence to augmented intelligence, however, may lie more with business leaders than technology developers.

For example, many argue we should maintain jobs for humans as cashiers and truck drivers, with the implicit assumption these workers are not capable of performing higher value tasks and thus would otherwise find themselves unemployed. The problem here is not AI or automation per se, but society's underestimation of what workers are capable of achieving, particularly when augmented by intelligent technology. However, this requires businesses to view automation as a means of developing the full potential of their human workers. As Paul Daugherty and H. James Wilson put it in their book *Human + Machine*, "investing in people must be a core part of any company's AI strategy." That doesn't mean technology cannot also take away work we want to perform, but we have to be careful we don't judge what's valuable or desirable based on our system's current limitations.

Industry will need to drive the demand for augmented intelligence and prove its utility with specific use cases. As the skills gap widens, and it becomes increasingly difficult to hire and fire towards new skill sets, we hope this will make augmented intelligence the greater focus of development.



5) Psychology and culture remain under-appreciated factors in our ability to create a more positive future of work. To date, the assumption has been that better access to education and skills training, combined with a strong social safety, will solve the greatest issues for those most likely to be impacted by the various technological, demographic, and economic trends. But this assumption is grounded in our current system, and misses the significant psychological and cultural forces that also play a part in determining outcomes.

Consider, for example, that countries with the strongest social safety nets do not typically have the highest rates of entrepreneurship. Indeed, among OECD countries, the United States was rated last for social protection spending and yet receives the highest Global Entrepreneurship Index rating by a comfortable margin. Moreover, the U.S. Labor Department has concluded that federal job training programs have been ineffective at raising participants' earnings or meeting the needs of employers. Clearly, education and access to opportunities are not the only contributors to the changes we are trying to facilitate.

It's hard to measure the impact of factors you can't see, such as individual psychology and group culture, and that's evident among the many approaches typically proposed. While increased access to coaching and mentoring is certainly a start, it's also true that psychology and behavior change strategies need to be more fundamentally integrated into the development of all solutions.



NEXT STEPS FOR WORK FOR HUMANITY

Although it began as a two-day brainstorming event, the intent of the first Blue Sky Meeting was always to create an organization dedicated to inspiring and catalyzing a new vision for the future of work based on the ideas we generated. >>

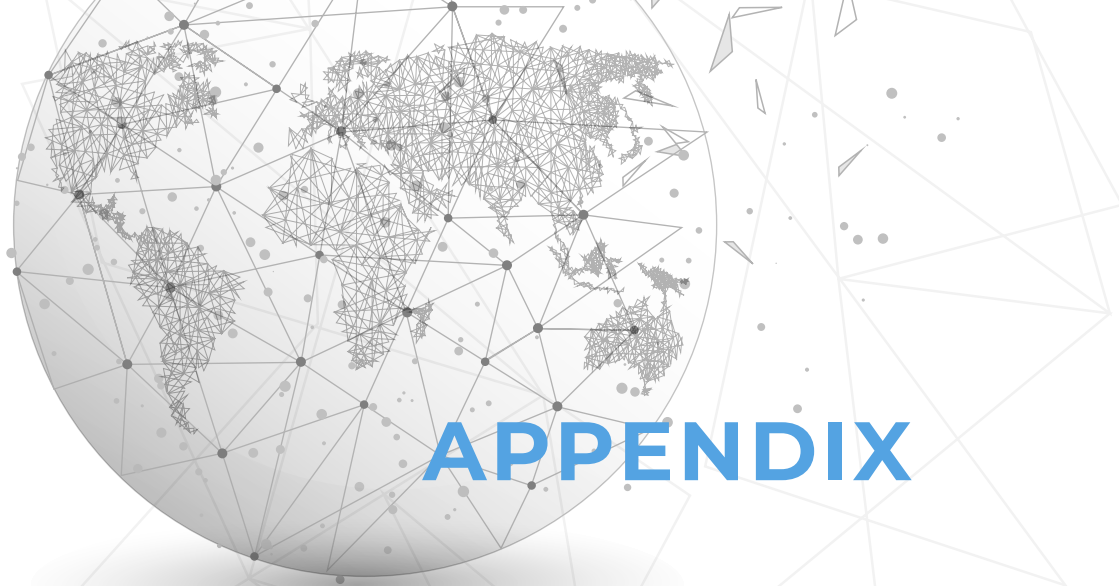
While the organization is still in the early stages of formation and there is significant work required to develop an organizational charter, I believe there are three important ways Work for Humanity can move the needle on the future of work in the near term.

- 1) Create a common vision for the future of work.** We will work with other industry and thought leaders to share and refine the vision for the future of work that we have started. Ultimately, this could lead to the development of a common agenda, shared metrics, and a communication plan for changing the narrative.
- 2) Work to change the cultural narrative around work and technology.** A cultural change of this magnitude requires a large number of advocates and creators. What we'd ideally like to see is a cadre of storytellers and influencers who inspire organizations and individuals to take the lead in their own way to realize a new future of work, the results of which can be shared and used to further inspire others to make change. The future of work must transcend from an area of study to a full-fledged movement. This involves the creation of short- and long-form media intended to reshape society's beliefs and priorities related to the future of work. We will create our own distribution platform as well as seek collaborations with other leaders and influencers. Armed with a clear vision and a community of creators, we'll be looking for examples and case studies that advance the new narrative and demonstrate the viability of the vision.



3) Provide a systems perspective. A perspective for the future of work that maps the stakeholders, their efforts, and the connections between them is missing. How might we leverage technology to discover and map the ecosystem we commonly refer to as the Future of Work? As we connect with thought leaders and business leaders on the new narrative, we will explore creating a platform that allows the community to visualize the relevant ongoing efforts, potential connection and collaboration points, as well as share valuable resources, research, and lessons learned that benefit everyone in the community. The creation of such a product may have important implications beyond this one area of study.

If you are interested in playing a role in Work for Humanity or would like to make us aware of your current efforts in this space as part of our systems approach, please reach out to me at jen@workforhumanity.com.



Over the course of two days, we led our group through a series of exercises meant to build upon and inform one another. >>

Starting with our revised challenge, we asked the group to answer three questions:

1. What is our vision for the future of work?
2. Which stakeholders are most important in the creation of that vision?
3. What questions can we ask to guide us toward innovative solutions?

It's worth noting that the time frame in which these ideas were developed was relatively short—they are intended to serve more as navigational aids rather than blueprints, pointing the way to where further study and experimentation would be useful.

Exercise 1: A bold vision for the future of work

We began by cataloging what the status quo looked like for the average worker. This then served as a jumping off point to think about what we'd like the experience of work to be in the future. These results are captured in the tables below.

FROM (STATUS QUO)	TO (FUTURE OF WORK)	WHAT THIS MAY REQUIRE
Work happens primarily at the worksite/office, with frequent spillover of tasks after official work hours	Work can happen almost anywhere, but people and organizations plan for and expect adequate time for leisure and rest	More reliable and realistic virtual communication tools that simulate in-person meetings; AI tools that evaluate and block non-urgent communication during non-work hours set by the individual; changing cultural values to encourage leisure and rest; highly motivated and engaged employees/contractors
Workers are paid for their time	Workers are paid for the value they create	Better models and tools for predicting the potential value of tasks, even those far removed from the point of sale; new belief systems about how work is organized and incentivized; greater trust between employers/clients and employees/contractors
Most organizations are hierarchical	Organizational structures vary widely, based on size and industry, and can even evolve depending on market conditions	Greater range of employment options; mobile benefits; faster and easier contracting vehicles; communication and collaboration tools modeled after semi-autonomous systems; affordable access to quality healthcare, child care, and education; new belief systems about how work is organized and incentivized
Low individual agency	High individual agency	Trust enabled through AI decision making aid; clear "commander's intent" for workers; highly motivated and engaged employees/contractors

FROM (STATUS QUO)	TO (FUTURE OF WORK)	WHAT THIS MAY REQUIRE
Individual security = having a job and its associated benefits	Individual security = being financially and intellectually resourceful, being flexible in one's identity, and always being able to come up with new ideas	Increased skills in entre/intrapreneurship (e.g. sales, marketing, networking, etc); psychological support for change and thriving under uncertainty; affordable access to quality healthcare, child care, and education
Work described using nouns (e.g. I am a nurse)	Work described using verbs, with understanding that verbs may change or evolve over time (e.g. I currently care for the sick)	Psychological support for change and thriving under uncertainty; elimination of job titles and the prestige associated with them
In the U.S. the terms blue and white collar not only distinguish manual labor from knowledge work (or non-manual labor), but are often used to infer socio-economic status and skill/education levels as well	Low-skill and low-value tasks are primarily performed by machines. There are no longer any status distinctions between manual or knowledge work, since all human work is high value.	Different tone and topics currently being discussed around the future of work; wide-spread automation of low value tasks
College and university education are considered the best choice for everyone. Undergraduate degrees are considered a necessity for most skilled work	There is also no perceived benefit of college over vocational school or self-learning. A person is judged by their ability to produce quality work rather than their level of schooling.	Increased promotion of vocational training; skills verification versus degree requirements in job descriptions; increased investment in augmented intelligence solutions
Work has a negative connotation--it is considered an obligation in order to obtain financial and social security	Work has a positive connotation--it is performed as much as or little as desired. When we do work, it enriches us financially, intellectually, socially, emotionally, and spiritually.	Re-building the city to support work/life balance; affordable access to quality healthcare, child care, and education;
System is designed to extract maximum value for owners and shareholders	System is designed to invest in and grow individuals and communities	Advisors and predictive systems that allow decision makers to weigh trade-offs of decisions

FROM (STATUS QUO)	TO (FUTURE OF WORK)	WHAT THIS MAY REQUIRE
Work environments are filled with competitive “if you win, I lose” cultures that decreases collaboration	Work environments have cultures of collaboration and shared responsibility for the advancement of the entire division/ organization and society as a whole	
For the majority, education is front loaded over one’s lifespan. The idea is to get your degree or certification, and then you’re prepared for the rest of your working life.	For the majority, education is a life-long and primarily self-driven endeavor.	Improved access and motivation to pursue self-guided learning; built-in psychological support and behavioral design; cultural shift in our approach to and expectations for education
Organization roles and work are characterized by hierarchies, silos, and matrices that limit contributions to those within existing structures	Organization roles and work are more fluid and people are part of/connected to workplace communities that unleash collective intelligence and enable broader-based opportunities to contribute/make a difference.	
People are known and successful based on their expertise (profession, function, industry, role, etc.); how ‘smart’ they are.	“Humility is the new smart” (Hess & Ludwig). Creating a sustainable advantage will come from celebrating and institutionalizing curiosity; being comfortable with ‘not knowing’ will be key to success	
Workplace is dominated by a fixed mindset	Workplace is dominated by a growth mindset	Increased access to coaching; culture of experimentation and learning where mistakes are acceptable
Artificial intelligence is focused on replicating and replacing human abilities. This often results in less work or less valuable work for humans.	Augmented intelligence is focused on complementing and enhancing human abilities. This results in less work overall, but work that is of higher value and interest for humans.	Increased demand from industry for augmented intelligence solutions; creative thinking about additional tasks workers could do when freed from previous ones; greater emphasis on community impact

Table 1: A new vision for the future of work

Exercise 2: Who matters most?

This exercise was designed to explore which stakeholders and beneficiaries were most important to our success in realizing a new future of work. Brainstormed ideas were grouped into several categories and then voted on.

INFLUENCERS & ROLE MODELS	BUSINESS LEADERS	EDUCATORS	VULNERABLE TO AUTOMATION	FINANCIALLY VULNERABLE	MISC
Media creators (filmmakers, bloggers, etc)	Tech leaders & developers	Curriculum developers	Cashiers	Those with high school diploma	Seniors at risk of being left behind by tech advances
Celebrities	Entrepreneurs/ start-ups	K - 12 teachers	Service industry workers (fast food cooks, bartenders, waiters, hotel housekeepers, etc)	Minimum wage workers	Policy makers
Billionaires as civic leaders	"Chief Evolution Officer" (a role that doesn't currently exist)	College & University deans & administrators	Truck drivers	Those without healthcare	Consumers
Artists	CEO's	Parents	Factory workers	Unpaid workers (stay-at-home parents, volunteers, etc)	Craftsmen
Philanthropists interested in future of work	Financial leaders (bankers, lenders, etc)	Project based educators (e.g. Montessori)	Those making less than \$20/hr	Retirees	Freelancers & independent contractors
	HR/OD/Talent development			Residents of towns where primary employer has shut down or left	Military personnel (active duty, separated/retired)
	Corporate shareholders			Those living in or at the edge of poverty	

Table 2: Who matters most



One could argue that all of these stakeholders and beneficiaries are important. Nor is this an exhaustive list by any means. Most treatises on the future of work make recommendations designed primarily for politicians and policy-makers. Our effort came to a very different set of stakeholders for the biggest near-term impact, each of which would require different approaches:

Influencers and Role Models. Participants agreed the most urgent work was to start changing the narrative around the future of work. A cultural change of this magnitude requires a large number of advocates and creators. What we'd ideally like to see is a cadre of storytellers and influencers who inspire organizations and individuals to take the lead in their own way to realize a new future of work, the results of which can be shared and used to further inspire others to make change. The future of work must transcend from an area of study to a full-fledged movement.

Technology developers and leaders. A marked shift from artificial intelligence to augmented intelligence will end the overhyped arms race between humans and technology once and for all. Our vision for the future of work will be difficult to realize without this group on board.

Freelancers and independent contractors. Finally, there was considerable interest in addressing the needs of freelancers and independent contractors, a growing segment of our current workforce. In many cases, these workers can be grouped with the vulnerable, as they typically lack the benefits and protections afforded full-time employees.

Exercise 3: Questions worth asking

Some of the most exciting innovations come from simply asking new and interesting questions. Our intent was to brainstorm questions that provoke discussion, inspire lateral thinking, and suggest new paths to unexpected outcomes on this topic. We framed these questions using “why,” “what if,” and “how might we”? Then we grouped them by theme.



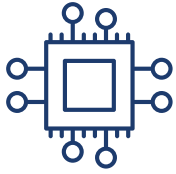
BUILDING COMMUNITY

- How might we create a more socially engaged workforce so that we have a greater sense of community?
- How might we quantify and multiply social capital so community becomes as much of an incentive as wealth?
- How might we regenerate civil society for the benefit of the collective good so that we can feed, shelter, and care for 9 billion people on earth?
- What if opportunity challenged people could more easily find each other and start companies based on their experiences?
- What if our economy was driven by resources that were more valuable when shared?
- What if care, not growth, were at the center of work?
- How might we reward work that engages people to locally solve global problems of significance (e.g. reducing local energy use, friends of the forest, etc.)?



STORY-TELLING

- How might we craft a new, compelling narrative about the future of work for distribution to social media influencers so that the idea of work is redefined and transformed?
- How might we develop a program that encourages influential story-tellers to come together so that fear of change and future technologies is mitigated?
- How might we better understand the underlying belief systems that stand in the way of a new narrative?
- How might we change our economic culture to value long-term investments in people and the Earth?
- What if media narratives shifted to imagine a healthy future of zero growth?
- How might companies become credible story-tellers for a more positive future of work?



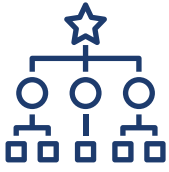
TECHNOLOGY

- What if technology could help people find meaning in a new age of leisure?
- What if AI made affordable and effective coaching widely accessible to shift the mindset of opportunity challenged workers?
- How might we use technology to help teachers meet the needs of students with a wide range of abilities, aptitudes, and interests?
- How might AI be directed to help humanity to address complex challenges that exceed our cultural, cognitive, and political capabilities?
- How might we leverage augmented intelligence to make degrees and previous experience in a task largely irrelevant?
- What if data and science were front and center in our macro decision-making?



SOCIAL SAFETY NET

- What if the social safety net was hyperlocal?
- What if security came from your capabilities and network, not a government program?
- What if the safety net looked like suicide prevention programs?
- What if cities created a tax to create benefits for independent workers?
- What if you could combine the roles of unions and insurance companies for independent workers?
- How might we promote alternative currency systems so that all forms of work, including unpaid, are valued?
- How might we decouple “social security” (e.g. Healthcare) from work so that the perceived risk of changing work is decreased?
- What if community organizations (churches, civic organizations, etc.) banded together to create a “union” for opportunity challenged workers, so that they could help remove road-blocks to better work?
- Why isn’t there a union for solopreneurs and gig workers?
- What if the safety net looked like an investment opportunity?



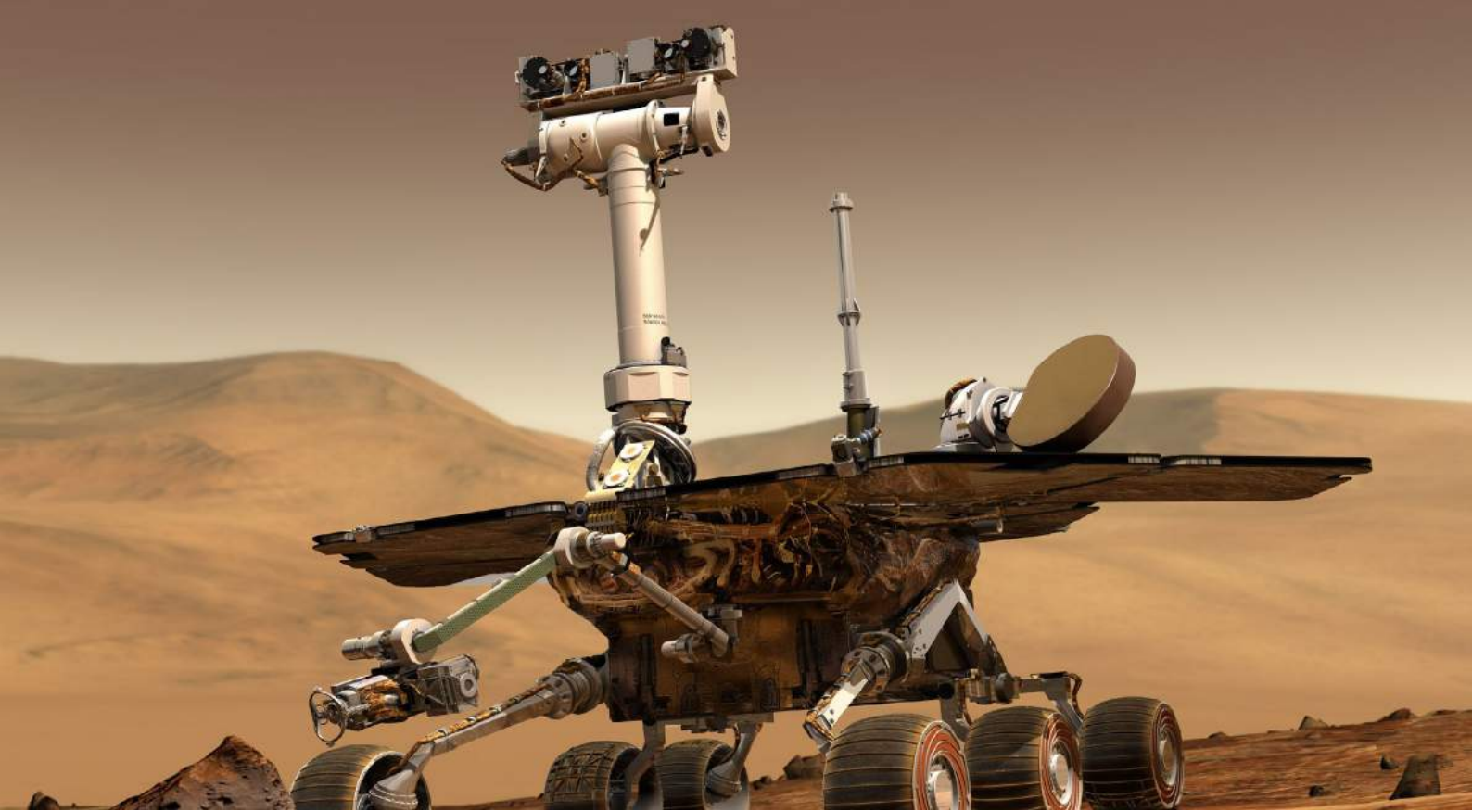
ORGANIZATIONAL CHANGE

- What if the recruitment process reflected the fact that most job skills are learned on the job?
- What if companies were organized more like an octopus (distributed intelligence) rather than humans (top-down intelligence)?
- What if the language of job descriptions could be re-written so that it encouraged opportunity-challenged workers to apply? (Opportunity challenged workers refers to a wide range of people, including but not limited to those who are: low income, under-employed, disenfranchised, lack access to education, etc.)
- What if we could alter the ROI for corporate shareholders so that they are incentivized to invest in their workers?
- How might we create a program or platform for employers so that employees can learn and earn on the job?
- How might we create new structures for *Fortune* 500 companies so that task fluidity is commonplace and culturally expected?
- Why can't individual workers create a single role from dozens of disaggregated tasks with different organizations?
- How could we make the tasks that an individual performs more fluid and agile so that their work looks more like improvisational jazz?
- What if changing one's work didn't require changing one's identity?



MISCELLANEOUS

- How might we begin to value those efforts being done to increase abundance and regeneration as much as financial titans?
- How might we create a system of life-long learners so that their newly learned information can be recognized, rewarded, and therefore incentivized?
- How might we get beyond the goal of "success" in careers so that we can openly discuss what human flourishing looks like?
- What if opportunity challenged workers were leaders in the future of work?
- How might we help people see unpleasant truths as opportunities for creativity and innovation?
- How might we put people to work rebuilding the city to create more long-term buildings, walkable cities, and civic art?



Exercise 4: Potential solutions

We brainstormed potential solutions to two different How Might We questions, each of which pulled from several of the questions and concepts we'd already discussed.

QUESTION 1: HOW MIGHT WE ENABLE STORYTELLERS TO:

1. promote openness to new narratives about work
2. reduce fear of change around the future of work while encouraging hope
3. inspire curiosity and innovation

We encouraged participants to think about and incorporate innovative concepts touched on in other questions, such as alternative currencies or valuations of work, the future of the city and how that infrastructure can support the future vision of work, and so on. Although the group broke into five sub-groups to do this brainstorming, I have consolidated the resulting ideas.

To influence the creation of a new world of work, the following steps are needed:

1. Describe the old and new visions of work
2. Identify belief systems that support the old view and behaviors that will encourage the creation of the new vision
3. Create and share narratives that address old belief systems and promote new ones
4. Identify early adopters and capture their experience
5. Gather data and begin the cycle again

This Blue Sky Meeting was a first attempt at Step 1. While this new vision will need to be refined within the wider community and over time as the world of work evolves, we can begin to look at ways to perform subsequent steps.

To create and share new narratives, a variety of formats could be utilized. The more mediums used simultaneously, the faster the narrative is likely to change, assuming that the narratives are well coordinated and communicated.



Print: Both online and traditional media, as well as both long and short form (e.g. Could include everything from articles in The New Yorker to a Twitter channel)



Film: Again, could include both online and traditional media, as well as both long and short form (e.g. Everything from a Netflix reality show to YouTube shorts intended for social media sharing)



Games: Video games and augmented reality platforms provide a way for people to experience what a new future of work could be like. Gamification would potentially provide fun ways to test and explore alternate work arrangements, reward systems, and benefit packages without the real work risk.



World Fair: We could borrow from the world fair concept, using VR/AR to allow people to experience the future of work



Incentive prizes: Incentive prizes, such as an X Prize, could be developed for narrow challenges with defined success criteria, to advance either our understanding or the creation of a new way of working

To capture the experience of early adopters we can:

- Create a platform to share stories about their experiments and experiences, with an aim to inform and inspire others
- Provide education to help people transition to new kinds of work
- Provide opportunities to explore new tasks and roles outside the rules and confines of the current workplace
- Create coaching and social communities to provide psychological support for change

QUESTION 2: HOW MIGHT WE CREATE A SOCIAL SAFETY NET FOR THE PROFESSIONALLY AND FINANCIALLY VULNERABLE OUTSIDE OF GOVERNMENT POLICY AND PROGRAMS?

Several distinct approaches were developed in response to this question.

Approach 1: Contingent Workers' Insurance Plan

The goal here is to provide benefits to independent workers and contractors, part-time employees, and contingent workers who otherwise are not covered by traditional safety nets such as employer-sponsored health insurance plans, unemployment pay, worker's compensation, or retirement plans. Many have recognized the need for portable benefits to serve the ever-growing contingent workforce, but current laws limit what benefits companies can provide without designating someone an employee. The question we explore was whether a not-for-profit investment plan could get around some of the current obstacles.

The investment portfolio would get funding from two primary sources. The first would be a percentage of each paycheck earned by beneficiaries. The second would be donations by philanthropists and the companies who hire contractors, based on a percentage of money contracted.

The primary benefits would be a kind of job insurance that would provide funding to ease hardship in cases such as injury, lack of work, or the need to retrain. It might also provide limited health care coverage. A portion of the funds could also be used as seed funding through an Angel Accelerator Panel. If a beneficiary did not require any of the services in a particular year, they would receive a dividend instead.

Approach 2: Transition Assistance Plan

Akin to the job security councils in Sweden, the Transition Assistance Plan is a financial and educational safety net for low-wage or low-skill workers. Funded by a coalition of employers, it would provide access to a career coach, education and retraining, and some period of severance pay, based on the employee's wages and tenure. This would not only reduce individual concerns about transitions due to trade or automation, but would make it easier for employers to rapidly reorganize when needed without worrying as much about the welfare of laid off workers. The savings that companies could earn in increased retention and improved hires, along with improved public relations, might offset the cost of the program.

Approach 3: Reinventing Community College

The goal here was to provide transformative education that is accessible, low cost, and effective for opportunity challenged people. This could provide access both to traditional college courses as well as vocational training. Funding would come from an industry-state partnership. Access would be distributed through a wide variety of mediums, such as a mobile van, public libraries, on-site corporate training, community centers, churches, boys & girls clubs, etc.

