The Future of Skills in the Humanitarian Sector
About the Humanitarian Leadership Academy: The Humanitarian Leadership Academy is a global learning initiative set up to facilitate partnerships and collaborative opportunities to enable people to prepare for and respond to crises in their own countries. The Humanitarian Leadership Academy was born out of a need to respond to disasters and crises more efficiently and effectively in areas around the world that need it most.

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A heartfelt thanks to Quicksand for their support throughout the project.

All statements in this report are the authors’ own opinion, and do not reflect the official position of any contributing experts.

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Summary

In the world of 2030, the humanitarian sector will be a tangled web of distributed networks, newly powerful nations, altruistic individuals and opportunistic profiteers. They will continuously shape and reshape, forming quickly around an issue and dissolving as quickly as they appeared. In this report, we look forward to the future of humanitarian skills in 2030, to help humanitarian workers prepare for the decade ahead. The world of the next decade will be faced with crises at never-before-seen scale and magnitude. Old forms of crises like famine and armed conflict will take on new shapes as technology and society advance, and emerging forms of crises like “computational crises” will become part of everyday life. Humanitarian workers will need new skills to face this future, to reduce human suffering with all the advantages of cutting edge organizing methods and technologies. No one can predict the future, but we can prepare for it. By using the methods of strategic foresight, this report forecasts the future and brings it to life through analysis, scenarios, and archetypes. Anyone working in the humanitarian sector, or anyone aligned with its purpose, can use this report to better inform what skills to start learning today, to create the future that we wish to see, and prepare for the unforeseeable disruptions ahead.
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THE SKILLS CRISIS

The world is a volatile place, and many argue that the pace of change is accelerating.

This idea is perhaps less surprising for the humanitarian sector than any other sector, since the humanitarian sector concerns itself with crises. The idea that the world can change in an instant, and that it is difficult and sometimes impossible to be prepared for that change is a founding assumption of the humanitarian sector. How can online lectures or task management software be called “disruptive” when we are addressing people who concern themselves with the prevention and aftermath of nation-inundating floods and wars that displace millions?

However, just as the slow, nearly invisible decline of a road network can turn a natural hazard into a dangerous disaster, or a subtle economic decline can increase tensions that might lead to war, or as the painfully gradual daily warming of the planet can “suddenly” result in a lethal famine, so do seemingly inconsequential or banal changes to the way we learn, work, and live threaten to produce a crisis if we are not prepared.

It is not the individual automation of a certain kind of job, nor the growing disregard for a once valuable credential, nor the shift from a full-time role to a remote outsourced one, that threatens to bring about crisis. It is the way in which each individual shift contributes, subtly and profoundly, to a wave of transformation in how we structure organizations, understand value, communicate with each other, and create change. This transformation, unlike a hurricane or a war, is not simply a disaster requiring the mitigation and prevention of harm. If we comprehend and prepare for this wave of change, it will be a valuable opportunity to broadly expand the scope of humanitarian impact in ways never before possible.

Greater volatility means greater uncertainty. Faced with uncertainty, people react differently. Some feel excited and energized, but many experience fear and withdrawal. People feel afraid because the future seems uncertain and beyond their control, decided by someone other than themselves. This can cause people to protectively pull away from the world, or worse. When people, especially young people, feel excluded, they sometimes resort to violence. Mais AlDaoud at the Jordan Crown Prince Foundation believes that the solution to this is equal access: “If you feel you have equal access, you will explore opportunities instead of resorting to violence.” She said this regarding youth who feel frustrated by their circumstances, locked out of global opportu-
nities, but it could just as easily apply to any other group. People who are afraid of what the future will hold, or feel barred from accessing its potential opportunities, are in a poor position to prepare for that future.

How does one help people play an active part in building the future? Ensure that they have the skills to work, organize, and thrive in it. But the evidence is clear that there remains a dramatic gap between what people are being educated to do and the skills necessary to face the challenges of the future. This gap is as wide in the humanitarian sector as in any other industry, and to bridge it will be no simple task. We know that the skills of today are not those that will be needed in the future. But the future is uncertain, and we do not know what will be needed instead. How can we prepare for a future that we cannot predict?

In this report, we apply the tools of strategic foresight to the future of humanitarian skills in an attempt to help humanitarian workers prepare for the decade ahead. We have created a forecast of the future of humanitarian skills reaching ten years into the future, to roughly the year 2030. This forecast is not a prediction, nor even a set of recommendations. It is a tool to understand what futures are possible, with some guidance and suggestions on how to work backwards from the future to what we can do today.

This belief that what we do today affects the future, and that an individual or group can act to “change the world” is fundamental to the process of strategic foresight. This view is fundamental also to humanitarian work, and so foresight for the humanitarian sector is an obvious mixture. Henry Dunant believed that the development of human beings is a process of evolution rather than an immutable pattern, and that it is based on a combination of education, cultural factors, and economic and political factors. The Dunantist approach reflects the notion that the social forces which guide the course of individual development can themselves be reciprocally altered by individuals. By using strategic foresight, we clarify what we can and cannot change, and strengthen our ability to do so.

What to expect in this report: In this report we examine the future of skills for the humanitarian sector, roughly ten years from now. Our goal in doing this is to provide someone attempting to prepare for this future with an effective tool for understanding what to do today.

Researching this report, we consulted many hardworking inhabitants of the global humanitarian ecosystem, particularly in Jordan and the Philippines. Their input is the single greatest influence on the content of this report. All credit is due to these generous confidantes and advisors who took the time to guide and inform us throughout this report’s creation.
The core of the report is informed by what we heard in these field interviews but the authors of the report are not all experts in the humanitarian sector themselves and deliberately so. The focus in this report is not expert analysis of present day humanitarian issues and trends, but how changes across industries and from outside the sector will affect what is happening within it. This report takes a cross-industry approach to draw diverse insights and connections. The goal is to help humanitarian workers, who are experts in what they are doing, to decide for themselves more effectively what to do to prepare for the future, not to tell them what to do didactically.

On the way to considering the future of skills in the humanitarian sector we have to account for what will happen in the future for the humanitarian ecosystem in general and the future of work and skills for the world. Much excellent work has been done on these topics, and so whenever possible we leverage that work as a starting basis for our efforts. Prior to the field interviews, we did a desk review of many different resources on the future of work, skills, and education globally. We have included some brief summaries and thoughts here in order to provide context but we don’t attempt to replicate the work, just use it as context and leverage for our specific focus on the future of humanitarian skills. If you want to dive deeper into these topics, please consult our “References” section.

**How to use this report:** This is not a set of recommendations. This is a set of possibilities. The difference is that recommendations say what should happen, while this report focuses on what could happen.

The goal of this report is to provoke and inspire humanitarian workers—volunteers, leaders, and donors—to think differently about the future. If we have done our job, you will likely find parts of the report that you dislike or disagree with. However, we suggest that you resist the urge to argue with these projections. If you find something that you strongly dislike or disagree with, instead try to think in detail about why you don’t want that future to happen, and what you can do to prevent it. As the statistician George Box once said, “All models are wrong, but some are useful.” No one can predict the future, so we know in advance that the forecast is “wrong.” If used correctly however, it will help you think more clearly about what to do today to optimize the humanitarian sector of tomorrow.

This report is best used as an active tool. It should be used as a way to draw in new partners, provoke new internal conversations, and generate insights for individual action. With futures thinking, more diverse conversations usually generate higher quality, so we suggest bringing in partners and people working in adjacent fields whenever possible.
Effective foresight is rooted deeply in both the present and the past. In this report, we combined desk research with long-form interviews of many different kinds of people working in the humanitarian sector. In addition to interviews done over video conferencing, we conducted face to face interviews in Jordan and the Philippines. These two countries were chosen because they have communities of humanitarian workers focusing deeply on very different kinds of humanitarian projects. Jordan, because of its proximity to several ongoing conflicts and politically unstable regions, is home to a humanitarian community whose efforts center on meeting the needs of displaced people and mitigating suffering associated with armed struggles. Humanitarian workers in the Philippines, because of their hurricane and typhoon-prone location and their recent experience with Hurricane Haiyan/Yolanda, have deep expertise regarding the prevention of and response to damage resulting directly from natural disasters and climate change related extreme weather events. The interviews were both informational and speculative.

We first asked for people to tell us about the history of their work and the humanitarian sector in their region. With this historical context as a basis, we inquired about current issues with their work. We then asked them to think ten years into the future, and speculate about the humanitarian sector a decade from now—in 2030. The interviews all had the same basic structure, but we made use of snowballing and pivoting to highlight and dig into important threads and information. This was not a survey, so more emphasis was put on elaboration and drawing out important stories and ideas than on standardization across the interviews.

Previous to and concurrently with the field interviews, we conducted phone interviews with experts and thought leaders in the humanitarian ecosystem, particularly those already engaged with futures thinking and foresight. We also looked for examples in the present of what
Institute for the Future calls "signals," which are small projects, companies, or behaviors that indicate something about the future. Sometimes these are technological innovations, and sometimes they are social behaviors...a signal can take many forms. From all of these inputs, our team used several abductive processes to tease out future forces. Abductive reasoning is the formal term for the process of generating hypotheses—it is neither inductive or deductive. It is characterized by iteration between synthesis and generation. We would conduct a small amount of initial research, and then generate a set of ideas and concepts that were plausible. Then we would conduct another small amount of research and compare our ideas to the new information, taking out anything that was no longer plausible, and generating new hypotheses. From this process emerged a structure for the ideas in the report. Future forces are disruptive movements or emerging factors that will affect how the future takes shape. They are different from trends—they are the elements that might break the patterns of change in data-driven trends forecasting.

The scenarios and illustrative elements of the report are products of the forecast. They were created by taking into account several of the identified forces and then imagining and describing a specific setting in the future where these forces might appear.

1 http://www.iftf.org/what-we-do/foresight-tools/signals/
Foresight and the Humanitarian Sector

THE GOAL OF FUTURES THINKING

No one can predict the future, so the goal of a report like this is to change people’s behavior, or rather to help them change their own behavior in order to create a better future. The goal is not to look back in ten years and see that we correctly predicted the future; it is to look back and see that people were called to change their work and learning in a way that mitigated disasters and stimulated new opportunities. However, this is not a science fiction project. The forecasts must be rooted in reality, and be a serious attempt to look at what might happen in the future given what our research indicates in the present.

Thinking about the future offers a variety of benefits. First, it gives us a way to plan for what we cannot predict. Earthquakes present a useful model for this. There is as yet no known method for detecting or predicting the time of an earthquake by more than a few minutes. However, in the state of California in the USA, there have been several huge earthquakes in the last several decades. No one can predict when the next earthquake will be but no one builds their homes out of brick which would collapse during an earthquake. There are things that can be done today to prepare for the far future, or unexpected disruption, even though they cannot be predicted.

As a corollary, thinking about the future helps to unearth unexpected opportunities. It gives us the space to think critically about things in our environment that seem inevitable and permanent like cell phones or North-South aid flows and think about how they came to be and if and when they might change. The futures lens allows us to look at the world around us and imagine how small patterns might grow, shift, and scale over time. Moving beyond the pressure of the day-to-day management of impact metrics and project administration allows for time to see where the world is headed so when we return to our work we are better equipped to notice connections and opportunities.

When building a future forecast, the first thing to consider is history. What is important for our work is not what is truly new—it is what is about to take off. But understanding history gives us the context to identify the glimmers of the future in the present, which should catch our eye as different and important. Starting with history and then searching for these signals is what provides the basis for forming a useful forecast. However, when using foresight research in your organization, you should start with the future. Perhaps counter-intuitively, it is much easier to create a forecast of the future and work backwards toward the present than the other.

THE FUTURE
way around. By doing this, you avoid getting bogged down in the specifics of what will happen in the near future, and can focus on broad disruptions and how they might impact your work over the long term.

**Foresight in the Humanitarian Sector:**

The role and value of strategic foresight in general has been well explicated (or at least debated) elsewhere, but there are still considerations to be made about how this might apply to those working in the humanitarian ecosystem specifically. The humanitarian sector’s funding structures and cycles make it extremely difficult for organizations to plan operations more than a couple of years ahead and they must do so within the constraints of specific projects and funding sources. By creating time-bound and project-bound funding mechanisms, donors implicitly force beneficiary organizations to focus their planning on the near future, even though in the long run local organizations are those that will be around to manage the aftereffects of a crisis. Forecasting is most effective when all stakeholders are involved in the process. This is especially true for the humanitarian sector where decision making and planning processes are distinctly asymmetrical and those farthest from the issues at hand have the greatest power and capital. Humanitarian foresight is of maximum utility when beneficiary organizations and donors are equally engaged.

Looking into the future for humanitarian organizations also invites complications of definition. Often humanitarian disasters are caused by the slow degradation of underlying economic and environmental systems over many years, until a specific trigger catalyzes a crisis situation. Since the role of the humanitarian ecosystem is to minimize suffering, it would make most sense to work on supporting these slow-moving economic and environmental systems so that crises do not occur in the first place. However, such efforts are often classed as “economic development” instead of humanitarian work, with different funding mechanisms and priorities altogether. One way to manage this could be to include economic development partners in humanitarian foresight conversations, and to use foresight as an excuse to co-develop long term strategy.

It might also be useful to reconsider a word that appears frequently when discussing the future, technology, and innovation: disruption. Disruption has a more profound meaning in the humanitarian ecosystem, which deals with the most dramatic possible interruptions of normalcy, situations where people’s lives have been completely uprooted or distorted. When talking about war and earthquakes, it
seems trivial to call software-based project management tools “disruptive.” However, like the heating climate that leads to desertification, which leads to economic downturn, which breeds societal frustration and breakdown that lead to the war or famine that initiates a refugee crisis, so could these seemingly trivial things build over time to cause a breakdown of the humanitarian sector, or its absorption entirely into corporate marketing projects and politically-motivated parochial interests. Were this to happen, it would be a tragedy of historic proportions. For all its many faults, the Dunantist humanitarian ecosystem is the only group of individuals and organizations that try to prevent people who may have no market value or political leverage from falling completely into the void, simply on the basis that they are humans who need help. The stakes are so much higher than e-commerce replacing traditional retail, or people working from home more often. And yet, these things are deeply entwined.
Assumptions and Trends

INTRODUCTION

The nature of formal humanitarian efforts is evolving. As time passes this sector of work is changing from a relatively small number of organizations offering relief in times of crisis to crowdsourced efforts to meet a community’s needs. This support can be garnered through many different channels: political pressures put on countries to provide monetary or physical aid, services offered to care for those affected, or assistance in rebuilding damaged or destroyed infrastructure. The goal is always to offer help, but as the years pass and technological advances proliferate, the help offered may look different than it did before. As we begin thinking about how humanitarian efforts might look in the year 2030, it is important to consider a few drivers of change that will play an instrumental role in developing those futures. In this section, we will look at how demographics, technological advances, political dynamics, the growing global economy, and climate change have impacted our current job market and how these trends might change overtime.

In foresight we are primarily interested in disruption, not trends. Trends are phenomena with good data behind them, that you can extrapolate with some confidence over time. Disruptions are breaks in this pattern of change, or things that are too new to have good data behind them. However, this does not mean trends should be ignored. They are part of the assumptions that underlie our forecasting. Although in this report we are concerned with skills in the humanitarian sector specifically, this future is greatly influenced by the future of work and skills generally. We want to make explicit some of the global trends and drivers that form the basis for our forecasting. Because so much quality work has already been done on this topic, we approached this from the perspective of a literature review more than primary research.
Please refer to the “References” section to find more information on the excellent reports from which we aggregated much of this information.

**DEMOGRAPHICS**

Many countries are currently experiencing a decline in working age populations as more employees reach retirement age. These population shifts will change the demand of services and goods that are desirable to these communities from more durable goods (i.e. houses, cars) to resources that could better serve an older population (i.e. healthcare, caregiving support) (OECD). With more money being put toward these types of services we may see a shortage of individuals in these fields as the demand for medical staff increases. In other countries, however, working age individuals make up the bulk of the nation’s population.

**Race:** The racial demographics of a nation’s working population varies though is often impacted by migration. Visa applications are quite complicated and the number of opportunities available is dictated by the type of visa an individual holds. With a spike in humanitarian crises globally, we have seen an increase in refugee populations; these communities have been displaced in neighboring countries and will need help finding work. Because of their immigration status, they may have difficulty securing full time employment for themselves or other members of their households. The rules for obtaining a work visa will vary by country; however, oftentimes it will include needing prospective employers to file a petition on the individual’s behalf. There may be obstacles prior to this step; in some countries, there are laws that require companies to seek out local employees for open job opportunities first before offering these same roles to visa holders. Other countries may also restrict the number of family members who may be granted a working visa.

**Gender:** With shifts in societal values, the makeup of the working class is rapidly evolving to include more women, especially outside of traditional and presumably ‘feminine’ roles. Pressure has been placed on different organizations to hire more diverse staff in order to create better and more informed teams, especially within institutions that teach or spread information so that varying viewpoints and perspectives are shared. We have seen a push for more women as content creators in journalism, film, and other media in order to change the narrative onscreen of what women can do. These changes in societal values have also led to a need for better representation in government as well. In 2018, the United States elected a record number of women to Congress and now has the most female presidential candidates than ever before in the history of the country. However, despite this record spike, the United States still ranks 75th out of 193 countries in regards to women’s representation in government, according to the Inter-Parliamentary Union (IPU). As of February
2019, Rwanda has the highest number of women in government, where women hold 61.4 percent of parliament seats, followed by Cuba in second with 53.2 percent and Bolivia in third with 53.1 percent. As reported by UN Women, women’s involvement in politics has vastly improved political decision making processes, as women work across party lines to champion issues of gender equality, such as elimination of gender-based violence, parental leave and childcare, pensions, gender-equality laws and electoral reform.

TECHNOLOGY SHIFTS

Automation: With the emergence of new technologies, we have seen a shift from human labor to automated work, starting with tasks that are easily able to reproduce the same effect when following a particular set of directions. And while automation may not be appropriate for all fields just yet, many professions have seen and will continue to see changes to everyday tasks in order to make work more efficient. Food services, for example, will be one of the first types of work to become partially to fully automated (McKinsey). Starting as early as 2015, many restaurants have already started eliminating their wait staff in efforts to maximize profit. Wufangzhai, a restaurant chain in Hangzhou, China, is one such example of this, after opening what they call an "intelligent restaurant". The food is still prepared by humans, but all other aspects of the dining process occurs via technology.

Companies are also investing heavily in automation projects, reconfiguring administrative tasks formerly undertaken by humans and shifting them to computer-managed systems. However, automation is often oversimplified and overemphasized when forecasting the future of work. Most automated systems that appear fully automated in fact have humans managing components on the backend in the form of pay-per-task online work, sometimes referred to as “micro-work”. Additionally, work that might seem easiest to automate such as manual labor in construction is in fact incredibly difficult from a technological perspective. Automation will impact every industry, including the humanitarian sector, but not always in the ways we might expect. As a rule of thumb, automation will first impact labor that is precisely repetitive and happens in a controlled environment, and will incorporate more slowly into fields defined by high variability or difficult-to-define goals.

Developed nations are thought to have more incentive and agency to automate their labor (as human labor is often expensive and this would help reduce costs), but automation could help propel the economies of developing nations (OECD). The efficiency created through automated work could make emerging economies more competitive in a global market, but these
countries often lack the resources needed to make the shift to automated labor.

**Gig Work:** The introduction and accessibility of the internet has helped change traditional work environments, often diminishing the importance of having a physical work space. Many employees are no longer working a full forty hours a week onsite; workers can be full or part time employees and have the flexibility to work remotely with the aid of video conferencing and applications that make it easier to share and send data (Google Drive, Cloud, Slack, Whatsapp, WeChat). The flexibility of this new work environment has supported the emergence of a platform economy where social and economic activity are facilitated through platforms like Uber, AirBnB, Postmates, and TaskRabbit (OECD). These organizations provide individuals newfound flexibility in earning an income; however, this flexibility has come at the cost of social protections that were often previously guaranteed.

**CLIMATE CHANGE**

Human activity is causing a massive shift in climate patterns. This reshaping of the natural world entails mass extinction, loss of habitable land to desertification and rising seas, and extreme weather events of higher frequency and magnitude. Many economies are deeply dependent on the still growing use of limited natural resources and raw materials. These higher levels of consumption will lead to food and water shortages globally, heavily impacting countries that lack the resources to create infrastructure to counteract these changes. Solutions like the Finnish organization Solar Water Solutions that use pure renewable energy to turn seawater into drinking water will need to be developed and implemented to harvest, store, and use water as efficiently as possible. Reducing carbon emissions and energy consumption must also be fundamentally prioritized. Professionals who can research and design ways to limit our consumption of these natural resources will be in high demand. Whether it is engineers or politicians advocating for climate-friendly services, we will see an increase in roles related to mitigating the effects of climate change (UKCES).
ECONOMIC SHIFTS

Global Economy: The global economy is quickly becoming integrated in large part due to trading partnerships between countries which has aided in making emerging economies more competitive in the global market. The appearance of new technologies in these countries has helped create communication, jobs, and infrastructure in these developing nations (OECD). As Western nations continue to outsource tasks to emerging economies, certain competitive and reliable job opportunities become more available globally (IFTF). A number of large corporations have created international headquarters in order to benefit from the talent of previously untapped labor pools. This can be mutually beneficial; for these large corporations, the labor is often cheaper, and the development of these roles and offices abroad can help bolster the host nation’s economy. This may lead to higher levels of competition between prospective employers as workers may seek out opportunities abroad for equal and eventually better employment. Projects like the Belt and Road Initiative aim to expand the global economy by connecting countries that were once isolated financially to one another. Over 150 countries have signed onto this project, hoping to share and use resources from neighboring nations to bolster their own infrastructure. One such example of this is the China-Pakistan Economic Corridor (CPEC), which aims to improve “road, rail and air transportation” between the two countries in an effort to enhance understanding of each other’s “academic, cultural and regional knowledge and culture.” The Belt and Road Initiative has been controversial in its effects, with concerns about power imbalances between some participant countries and the initiating country, China. Whether its effects are ultimately positive or negative, it is an example of economic relationships shifting as new, wealthy players enter the world stage.

SHIFTING POLITICAL DYNAMICS

The changing political tides of a nation can vastly impact the future of work. One example of this is the effect of budget cuts to public schooling. The annual budget for education is decided annually by the government and impacts the amount of resources schools have for the upcoming school year. The amount provided helps decide the number of teachers per school, staff pay, the funding for textbooks, computers, or office supplies, and whether money can be put aside for improvements to the physical infrastructure of the school to keep it clean and safe. The political dynamics of the country may also decide who is able to attend the school as it is still difficult for women to access education in many countries. Determination of the education budget impacts the future of teachers and other staff of the school but also the type of education students will receive which will further impact their future employment opportunities. These changes are not limited to the public school system.

A country’s political system can also establish who is allowed to work (i.e. whether or not their immigration status affects their employment, and how your gender identity or sexual orientation...
may impact your ability to hold a job - see the United States’ military ban for trans individuals) (Riley, 2019) and for how much (the cost of minimum wage in a given area and if this is a livable wage for employees). Individuals also have the ability to determine whether or not they would like to work for an organization due to their own personal and political views. Boycotting companies for their leadership’s political views or personal relationships with political figures is becoming more common as well (i.e. boycotting hotels owned by the Sultan of Brunei due to his views on gay marriage). The government is also able to determine the amount of aid provided to communities in need and how quickly they are able to receive the aid. Puerto Rico is still struggling to rebuild after the hurricanes of 2017 despite the numerous calls to action made by legislators and constituents in the U.S. There have also been instances where due to political treaties, countries remain uninvolved when other communities need assistance, as doing so could alter their own relationships with other allies. Or, alternatively, aid has been sent and deliberately blocked by the recipient country’s own government.

MEDIA

Over the next ten years, new forms of media will begin to have an impact on the way we learn and work. These will include technologies such as virtual and augmented reality. Virtual reality is already being used in some settings for training, and this will become more common with its uses and effects more clearly understood. Some form of augmented reality device will replace cell phones, although it will take longer than ten years for the cost to reduce dramatically enough so that it proliferates as broadly as cell phones.

EDUCATION

As work changes, so must the education that trains people to do that work and enriches their lives. Existing learning institutions are adapting their models to try to address these new needs, and new organizations are also emerging in an attempt to close this gap. The role of education is not purely to prepare people for a job market but to help people live meaningful, purposeful lives. It is in educational institutions that people will or will not prepare to work in the humanitarian sector and it is there that they will or will not learn humanistic and humanitarian values.
If we think about schooling beyond secondary education, the broadest shift is from episodic and centralized curricula toward continuous and distributed learning. Education is shifting from something that happens in isolated periods, within specific institutions conducting and credentialing it, toward something that happens continuously, any time, any place, and is tracked in an ongoing way as it occurs.

**New Educational Organizations:** A diverse range of organizations have emerged and continue to emerge, offering classes online in a variety of formats. Some are offered by or through universities with general content, like EdX, and some are funded by private companies, like Udacity. Still others focus on a specific industry, like the Humanitarian Leadership Academy’s Kaya platform. These organizations are filling a gap between the skills people working in today's world need and what is offered by traditional educational institutions. They will not be replacements for full-time education, but more people will opt for their services unless they are specifically pursuing a career in academia.

**Credentials:** New forms of credentials are emerging to track this learning. These credentials, sometimes called “nanodegrees” or “micro-credentials” are for more isolated skills, and are offered outside of traditional universities. In the next decade, other forms of even finer-grained and distributed forms of credentials will arise, enabled by technologies like blockchain. These credentials will be based on more than just skills demonstrated through standardized assessment. They will include other skills like networking, personal branding, and grit. One example in the humanitarian sector is Hpass (hpass.org), a digital badging system designed for the quick deployments and shifting organizational roles of humanitarian workers.

**Shifting Roles:** Teachers have always done more than just deliver content. They are mentors and guides, coaches and role models. As pure content delivery and evaluation becomes easier to automate and distribute, the role of teachers will shift to focus more deeply on the qualitative and personal aspects of teaching and learning. In other cases, the role of student and teacher will blur and collapse, as matchmaking services allow people around the world to connect and learn together, sharing what they know and learning in new ways.

**CHANGING SOCIETAL VALUES**

Our ideas of what men and women are able to do have changed over time and our working environment has evolved to reflect these changing perspectives. More women have joined the workforce, earning and holding jobs in different professions, while more men have moved into traditionally feminine roles such as caretaking and stay at home dads. These changes are due in part to a greater push to educate young girls globally. According to the World Bank, girls’ education is a strategic development priority. Better educated women tend to be healthier, participate more in the formal labor market, earn higher incomes, and enable better health care and education for their children. All these factors combined can help lift households, communities, and nations out of poverty (World Bank). With the support of humanitarian organizations,
many communities are working to bridge the gap between boys’ and girls’ education rates because they understand the impact educating young girls will have on the girls themselves, but also their community over time.

More individuals are also emphasizing the importance of being at home with their families, especially those who have young children or aging parents. These familial responsibilities have encouraged a growing need for flexibility in the workplace facilitated by emerging technologies. Due to these changes, we’re seeing a shift from employees seeking work-life balance (the importance of keeping work at work) to work-life integration (how to integrate work into your home life) (OECD).
Humanitarian Sector 2030

To explore the humanitarian skills of the future, we must consider the context in which they exist. In 2017 the Humanitarian Leadership Academy, in conjunction with the International Rescue Committee (IRC) and Institute for the Future, conducted research about the future of humanitarian organizations. It was completed in partnership with a broad range of humanitarian organizations from across East Africa, combined with a foresights co-creation workshop in Nairobi, Kenya. An updated version of this research provides a basis for our forecast of the humanitarian sector with new perspectives from our interviews and more recent events informing it as well.

This section starts with a near-future look at the most urgent crises that the humanitarian sector will face. Thinking about where humanitarian work will be most needed offers insight as to how it will be done. In partnership with IRC, we considered emerging trends in the humanitarian sector and how they will affect the future of humanitarian work. While exploring these urgent foci, we also forecast new crises that will emerge within the next decade, and how the humanitarian sector might prevent and mitigate them. Focusing on crises is not to imply that humanitarian work is solely about crisis response but to concentrate our efforts on where there is most need. At the end of each section we include some “signals of hope,” or examples from the present that may disrupt the processes responsible for crises of the future.

After discussing the most urgent crises of the next decade, we will examine how “disruptive shifts” to the sector will manifest in the world of 2030. These are meant to be more provocative and farther out than the urgent crises and will give our forecast context as we move into the future of skills for the humanitarian sector.

MOST URGENT CRISIS OF 2020-2030

At the time of writing this paper more than 135 million people are in need of humanitarian aid, and most of them live in or near protracted crisis areas.
crises\textsuperscript{2}. Humanitarian relief operations in such contexts will remain highly complex, dangerous and expensive.

Protracted displacement will become an increasingly central humanitarian concern over the next five years’ time. Today, UNHCR reports a record 70.8 million forcibly displaced people, and that number is still increasing. This is primarily due to lasting conflict, with half of the world’s population affected by ongoing wars in the last 15 years\textsuperscript{3}. Factors such as climate change, food insecurity and natural disasters will lead to greater displacement in years to come. This will occur through new routes and entail resettlement in new locations. Displacement will also last longer, with most displaced people unable to return home for several years, and many forced to leave permanently.

Technology will help responders gather, coordinate, communicate, and interpret large quantities of data, so it can be used in preparing more effectively for crises and in initiating targeted responses once they happen. However, relying on technology at the onset of disasters can be problematic. In a humanitarian crisis, responders cannot always depend on stable contexts, for instance if telecommunication infrastructure is destroyed.

Throughout the coming years, the question of the identity and value of agencies, and in particular the debate over humanitarian principles will be crucial. These issues will fundamentally impact how organizations and donors see themselves, but also how affected populations see them and what the people in need of aid can expect.

The sector will face questions such as whether agencies should primarily be the implementing partners of government funding, or whether they should stand for principled independence and impartiality, or anywhere in between. There will also be questions over where the balance of power in humanitarian aid will reside, whether in the global North as it now does, or closer to the highest concentrations of affected people.

\textbf{SECTION ONE: NATURAL DISASTERS}

Climate change, with its impact on all types of humanitarian situations and responses, is a defining issue that we should expect will grow in scope, magnitude, and complexity. The effects of climate change will be pervasive but unevenly distributed and will present more extreme challenges for the parts of the world that are often in most need of humanitarian aid. Specifically, populations most affected will be those in warm countries, in poor parts of the world that already experience significant conflict or political instability. In the coming years, countries currently affected by climate-related events such as droughts, floods and extreme weather will face even greater impacts. In general, climate science indicates that dry places will get drier and wet places will get wetter, while sea-level rise and more intense precipitation incidents will increase flood frequency.

The potential consequences of this are significant, as the increase in vulnerability to climate change in poor countries coincides with a

\textsuperscript{2} UNOCHA, \url{https://interactive.unocha.org/publication/globalhumanitarianoverview/}
\textsuperscript{3} UNHCR, \url{https://www.unhcr.org/globaltrends2018/}
growing number of people in areas that are already vulnerable to shocks. Populations are rising in areas most susceptible to disasters as safer and better land is already taken. In some places this will trigger violent competition over land and water, and will at the same time make people more vulnerable to disease as living standards and sanitation suffer.

Extreme weather patterns will generate powerful storms that threaten, in particular, improvised, densely populated settlements in low-lying coastal lands. In these areas, as well as in drought-prone, arid regions, access to clean water will become increasingly important, as prolonged shortages lead to food insecurity, disease and conflict.

Earthquakes, while unrelated to climate change, also present a formidable threat to people living in seismically unstable areas. Earthquakes account for a significant percentage of lives lost in natural disasters, particularly in poor, densely populated urban areas. One of the reasons why the 2010 earthquake in Haiti was so devastating was that over 85% of the population of Port-au-Prince lived in urban slums. As urbanization continues and cities become bigger, so is the risk to those who live in substandard housing in areas where earthquakes occur. In the absence of sweeping, proactive measures to retrofit buildings and infrastructure in tremor-prone areas, poor people living in these regions will experience significant adversity in the wake of any major earthquake. For agencies responding to these issues, there will also be challenges in how to manage both prevention and response, not least given the scale that some of these disasters may have.

Fortunately, there are some new tools at our fingertips that can be leveraged in order to build efficiency, support collaboration over competition, and prevent hazards from becoming disasters. As new technologies emerge, humanitarian actors will use them to reduce the number of people affected by disasters and increase the ability of local communities to withstand future shocks and disasters. Novel financial instruments, along with developments in engineering, material sciences and other fields will offer some new answers to questions like: How do you fireproof a small village, or slums in Nairobi? How do you protect against drought in places that don’t have resilient water
infrastructure? The following signals indicate what these efforts might look like in 10 years time.

**Signal:** Natural disaster insurance – The London Centre for Global Disaster Protection is attempting to restructure disaster relief benefits from DFID to developing countries. Countries purchase insurance, which has pre-determined payouts in the event of disaster. In theory, this should allow for more stability and better planning, as the funds become “automatically” available in the case of a natural disaster. It can also theoretically reduce the burden on aid budgets by providing a model in which the recipient countries themselves pay into the fund over time.

- [https://www.disasterprotection.org/](https://www.disasterprotection.org/)

**Signal:** Hexayurt – This open-source housing design, originally created for use at the Burning Man festival in the United States, uses common building materials. It is based on zero-waste principles and has been used as relief housing.

- [www.hexayurt.com](http://www.hexayurt.com)

**Signal:** Urgent Computing in Haiti – TACC, a supercomputing center in Texas, used machine learning (with data from satellite imagery and GIS) to help first responders map damage after the Haiti earthquake and deploy resources appropriately. The patterns reflected in the data associated with this project and others help the computer models get better over time, and can inform resilient design that will prevent damage in future disasters.
Famine and food insecurity continue to cause humanitarian disasters. In 2017 it’s estimated that “nearly 70 million people globally will need emergency food assistance … and a further 795 million people are chronically undernourished.” In addition to preventable deaths, famine and malnutrition produce stunting in children, which has lifelong effects on neurological development. In a time when labor is moving from manual to knowledge-based, mass stunting could cripple economies in the coming decades. Famine and food insecurity increasingly appear alongside a public health crisis on the other end of the food-access spectrum – obesity and associated diseases. Diabetes, gout, and heart disease are increasingly impacting people in the poorer nations who have traditionally only suffered from famine and food insecurity.

Famine and food insecurity is primarily an issue of access, as opposed to shortage. These problems are fundamentally rooted in politics and in structures of poverty, exploitation, and capitalism. This has led to an increased focus in some circles on resilience, improving the underlying factors that lead to food crisis and famine in the first place. Rather than giving food, for example, organizations are also focused on building up systems to withstand the next drought that might lead to famine. Others try to create self-sustaining economic opportunities that help families achieve financial (and therefore food) security.

Traditional humanitarian aid has historically often struggled to respond to famines, with late and insufficient response. This has often been compounded by humanitarian agencies’ use of methodologies designed for natural disasters to address a problem with significant social origins. This tendency has been driven by a desire for operational agencies to be seen as neutral and impartial in complex emergencies, but observers have also noted that this sometimes lends itself to organizations allowing themselves to be manipulated by armed actors and authorities.

While some of the world is better off than it has ever been, under current trends the most marginalized inhabitants of the most difficult and violent parts of the world will still face famines in the coming years. When cyclical events such as droughts combine with violence, conflict or other man-made problems, populations in those areas face increased risk of famine. This is especially true in those parts of the world where armed actors use famine as a weapon of war. Desertification, coastal land loss, migration, and other effects of anthropogenic climate change increasingly compound these issues.

**Signal:** IKEA is developing experimental gardens for urban farming with an accompanying line of products. Urban farming could increase resiliency by growing more food grown where it is consumed, reducing overall dependence of food systems that rely on long distance transportation.


**Signal:** The World Food Program is conducting experiments with blockchain as a mechanism for more granular tracking of food distribution, and automated contracts to make partnerships more efficient.


**SECTION THREE: PROTRACTED CRISIS AND DISPLACEMENT**

Fragility of states and operating contexts is one of the key challenges for humanitarian projects today, and one that will remain. While there are several definitions of what constitutes a fragile context, the OECD uses the following broad one: the combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks. The accompanying framework includes consideration for economic, environmental, political, societal and security issues.

Protracted crises last a long time by definition, and can increase and decrease in intensity over their duration. These up and downs are driven by a number of factors including conflict, political instability, and cyclical issues. Cyclical issues like droughts reoccur and are often predictable and do not need to lead to major humanitarian disasters. However, when combined with other factors they can intensify an existing crisis or trigger a new one. For example, an increase in food prices can trigger demonstrations or violence.
The core issues of protracted crises will remain present in the next decade with various actors such as governments, opposition groups, civil society and the private sector vying for power and profit, but at the cost of a coherent state accountable to the population. In places suffering from protracted crises, more people will be in need of humanitarian assistance, and they will be more difficult to reach due to access restrictions and conflict.

Politics and media attention will likely continue to play a key role in determining which protracted crises get support. While Syria, and sometimes South Sudan, get lots of attention, places such as the Central African Republic and Burundi that have little impact on national security or immigration for globally powerful states tend to become “forgotten crises”. These countries are likely to remain neglected until there is a spike in violence.

Once access has been gained, providing coherent and sustainable aid to people displaced by conflict for an unknown period of time will be one of the key structural challenges for the humanitarian community. This is exemplified by the more than 4 million Syrian refugees in Turkey, Lebanon and Jordan, and the growing number of South Sudanese refugees in Uganda. While displacement is a key practical challenge for aid delivery, it is also increasingly one of the key drivers for humanitarian funding from Western donors as they seek to curtail the number of refugees that reach Europe or the US.

Protracted crises lead to protracted displacement. This will likely be the defining issue for humanitarian assistance in the coming five years. This will include people displaced within their own countries and people displaced across a border as refugees. At the same time the willingness of most governments, in particular Western ones, to host or support them will likely decrease. Another significant challenge for humanitarian workers over the coming year will be that of returns. Once conflicts and crises end, people often want to return home, but that home may no longer exist in the same way. Other people may live in what used to be someone’s house, or the house may be gone, or there may no longer be viable livelihoods in the area. If the cause of displacement was conflict, which it often is, the need for peace building will be significant.

**Signal:** The Syria Airlift Project uses drones for humanitarian aid in areas of Syria where the risk of using manned cargo planes is too great. The inexpensive drones are crowdfunded and used to deliver many small aid packages to besieged areas instead of few large deliveries.

**Signal:** Bitnation wants to be a distributed organization that provides access to government systems virtually, regardless of citizenship or location. Although they may not succeed, it is a signal of how governments can and will organize differently to go beyond their geographic borders.
- [http://www.bitnation.co](http://www.bitnation.co)
The humanitarian sector has only tangentially been involved in computational crises, but as their prevalence and severity increase, the sector will be forced to respond. Computational crises do not all fit neatly under one umbrella but all of them are connected in that they result from the effects of algorithmically generated communication and decision-making, especially when algorithms are connected to physical objects and infrastructure.

Computational propaganda and algorithmic communication are beginning to make discourse online more complicated. Countries and companies with self-interested or malicious intent are using bots and algorithms with increasing levels of sophistication to manipulate people’s communication and decision-making. There is already evidence that this has affected the elections of multiple democratic countries.

In the next decade, crisis and conflict will become intimately involved with and connected to what is happening online. If humanitarian organizations want to be able to reduce suffering effectively, they will need to understand how to participate and intervene in a viral, mimetic, algorithmic and automated information ecosystem. For instance, data collection in the wake of an earthquake will become more complicated if a politically-motivated group uses algorithmic propaganda to spread rumors that aid workers are poisoning children. Spreading rumors and misinformation have always been tools for power and profit, but what is new is the speed and scale at which they can be spread, and the realism with which an untruth can be propagated.

Algorithmic communication and decision-making become even more urgent considering their connection to physical infrastructure. Cyber-conflict can have effects on the physical environment and well-being of people living in it by affecting their access to basic services. At the extreme end, this extends even to algorithmic oversight of weapons of war.

Perhaps the most urgent and troubling aspect of these dynamics is their potential to produce systemic, emergent crises. These are crises that can emerge when many unsupervised actors in a system interact transactionally without any one organization or group having the capacity or responsibility to oversee the entire system. This happens even without automation or algorithmic control. The 2008 financial crisis in the United States, with its ripple effects throughout the global economy, is an example of this. These crises are extremely difficult to anticipate and once they happen they are very
difficult to confront. A crisis like this might look like “the 2008 financial crisis but for global electrical grids,” or “the 2008 financial crisis but for autonomous driving systems,” or “the 2008 financial crisis but for drinkable water.” Intervening in a distributed global disaster with very ambiguous causes and effects will present new challenges for the humanitarian sector.

**Signal:** Rumors affecting infrastructure – During the 2014 Napa Valley Earthquake in California, USA, trolls “hijacked” the tweets being used for emergency response to spread misinformation. Most of the misleading tweets were coming from outside of the US, so responders were able to cope by filtering messages by geolocation.


**Signal:** Knowherenews uses machine learning algorithms to attempt to reduce bias in their news articles. They analyse language in different news articles to detect things such as emotional language to either reduce or clearly call out politically-motivated perspectives.

-  https://knowherenews.com/

**Signal:** Panzagar Girl – When Burma opened its borders, extremists in online forums began calling for physical attacks on Muslims. Panzagar Girl is an online viral campaign that was formed to counteract these sentiments. This crowdsourced campaign is a signal of managing protracted crisis in digital spaces.

-  https://www.facebook.com/panzagar
In the world of 2030, the humanitarian sector will be a tangled web of distributed networks, newly-powerful nations, altruistic individuals and opportunistic profiteers. They will continuously shape and reshape, forming quickly around an issue and dissolving as quickly as they appeared. This will mean more agility and adaptability but long-term responses and approaches to intractable crises that last decades will suffer. These are some of the disruptive shifts that will affect the entire global humanitarian ecosystem in the next decade.

Disruptive Organizational Shifts: In many cases, the number of intermediaries between donors and beneficiaries will be less. Driven by localization efforts in the sector and aided by automated systems for monitoring and evaluation (M&E) and reporting, donors will give directly to local organizations which in turn will report directly to the donors. People benefitting from humanitarian programs will be able to collect M&E data and share it directly with the donor. However, in some cases legal frameworks will require intermediaries despite the fact that they no longer add any additional impact.

Disruptive Political and Economic Shifts: In 2030 the map of global economic and political power will look very different from today. China will grow in power and wealth and will become an unavoidable presence among humanitarian donors. American donations will increase in order to compete with what they perceive as a threat by Chinese “soft power.” European involvement won’t disappear, but it will be tempered as many of Europe’s nations age, shrink, and decline economically. Some countries that in 2019 were usually the recipients of aid, like Pakistan, the Philippines, Indonesia, or Kenya, will grow rapidly economically.
They will become not only self-sufficient but donor countries themselves. In addition, newly-wealthy private companies and individuals in these countries will wield greater influence over the sector. However, these new national and private donors will not give money to or through the Western-based Dunantist humanitarian sector, but through newly powerful Confucian, Islamic, or corporate sectors they see as more neutral. In some cases this will mean more or less equivalent but differently-structured types of aid for recipients. In some cases politicians or governments will refuse aid for political reasons, not because they truly do not need it, increasing suffering for the local people involved.

**Disruptive Natural Crisis Response Shifts:** In 2030, crises caused purely by natural disasters will be highly mitigated in the vast majority of cases and no longer considered worthy of humanitarian assistance on their own. Automated global data analysis will enable communities and countries to anticipate typhoons, hurricanes, and even earthquakes by weeks or months. Additionally, everyone will have seen with vivid clarity through new immersive media technology the effects on other communities that failed to prepare, even if they had never experienced something similar before. Disaster Risk Management and preparation will be a part of a nation’s basic economic management practices.

Natural disasters will only become important focuses of humanitarian programs when social factors compound the crisis. Examples include situations where nations with less resources or capabilities unsuccessfully attempt to manage crises without outside help for reasons of political perception or when viral misinformation confuses people about the correct course of action in the face of the incoming disaster.

**Disruptive Communication and Information Shifts:** In 2030 virtually everyone, even the poorest of the poor, will have basic access to the internet. There will be exceptions when access is deliberately curtailed (for instance, by a government), or when communities or individuals deliberately give up connectivity (for instance, for religious reasons). The communication and media landscape will be even more confused and complex than it was back in 2019—all communication will be viral and mimetic. This will allow for new forms of donor engagement, M&E, and crisis response, since people will be able to tap into live-feeds of what will be happening anywhere in the world at any time. However, there will be so much misinformation that it will become difficult for any single actor to transmit reliable information without enormous effort to rise above the noise.
Because of this, in-person engagement will actually rise in value for transmitting information about disaster mitigation programs and responses. Face-to-face connection will be the only way to catch people's increasingly divided attention.

**Disruptive Funding Shifts:** In the next decade, many humanitarian efforts will be run more like a business than a charity. Driven by pressure from donors to be self-supporting, or to follow market models, humanitarian organizations will create programs that contain elements of monetization. Sometimes this will mean multi-tiered programs in which some beneficiaries receive a basic package of services while others can receive a more robust package of services in return for a fee. In some cases, this will allow programs to provide benefits to more people. In others, it will create situations where people are only able to access humanitarian services to the extent that they can pay for them. This will be especially dangerous in situations with entrapped populations, such as refugee camps with controlled entry and exit, since people are beholden to the services for survival.

**Disruptive Monitoring and Evaluation Shifts:** In ten years, the need for humanitarian programs to have traceable quantitative metrics will be even higher than it is now. Humanitarian donors will demand many different kinds of quantitative tracking from photo verification to real-time allocation updates. Connected sensors will be embedded into many parts of the physical world, including people's bodies. This will allow for many forms of automated tracking for aid programs. However, spoofing for these methods will evolve just as quickly as the methods themselves.

Automated services will be a huge help when working with basic services delivery. Automated systems will be less susceptible to danger from conflict or environmental catastrophe so they will be able to assist with aid delivery in places and circumstances that people cannot. They will also prevent forged aid disbursements or misallocation.

However, this insistence on quantifiable metrics will have some of the most negative effects of any disruptive shift. It will make it harder to fund programs that are difficult to describe in terms of quantitative metrics, such as those that support emotional wellbeing. Programs will emphasize “scalability” and the number of people affected by the program, as opposed to the reduction of suffering for individual people. In many cases, this will result in the direction of funding toward programs that do not substantially help people or even increase the hardship for the target populations.
Something that distinguishes humanitarian work from work in other industries is the role of volunteers, donors, and program beneficiaries. Unlike in other industries, there are some essential stakeholders who work for free, and others who even pay to participate. This diversity of incentives and motivations makes the future of skills for the humanitarian sector particularly rich, complex and difficult to generalize. We have done our best here to touch on as many points as possible for as many different roles as possible, knowing that we will not be able to cover everything.

We chose to focus more heavily on the skills for workers and volunteers within organizations, although we do touch on skills and work for beneficiaries as well. This is not to diminish the importance of the latter or to imply it will not change with the future. In fact, several people we interviewed suggested that the role of humanitarian worker and aid beneficiary is blurring—that many programs are, whenever possible, co-creating the programs with communities that would previously have been considered more passive recipients. Most people considered this a positive direction, especially in the Philippines where the people we interviewed were largely focusing on natural disaster preparedness and mitigation. It is not without complication, however. Outsourcing program design and implementation can, unintentionally or not, result in transferring risks that might have otherwise been borne by international organizations to local partners and beneficiaries. This is one example of many possible negative, unintended consequences of well-intentioned efforts.

Although it is often over-emphasized, it is impossible to talk about the future of skills for the humanitarian sector without addressing automation. Since so many things can be considered “automation,” it is hard to touch on everything. Still, it is possible to make two broad generalizations about a future where software and algorithms handle increasingly complex tasks within organizations. Computers are very effective in controlled environments with a lot of repetition and clearly defined goals. These characteristics are actually much more important than whether or not a task is complicated for humans. Every humanitarian worker should think about what parts of their work fit these characteristics because they will be the most likely candidates for automation over the next decade. Certain aspects of program management, accounting, and administration are particularly susceptible to this. Conversely, computers are ineffective in situations that are highly volatile, in environments with unclear characteristics or delineation, with goals that are vague or undefined. Every humanitarian worker should think about what parts of their work possess these qualities and focus on the skills related to them because they will remain highly dependent on human labor during the next decade.

We’ve organized this section into “Future Skills” that we connect to the “Disruptive Shifts” in the previous section. This is to emphasize which
skills will be most useful for what situations although ultimately all of them are connected and interrelate across categories.

FUTURE SKILL: Managing multiple jobs, and even multiple industries  
(Disruptive Organizational Shifts)

The humanitarian sector, like most industries, will see a decline in full-time work, and a rise in freelancing and gig work. Organizations will keep fewer full time staff on their roster. This means that managing multiple streams of income and constantly hustling to find new work will be a reality for most humanitarian workers. Many humanitarian workers will not work exclusively in the field but instead on a combination of humanitarian and for-profit projects. For those who relish novelty and are able to balance the complexities of inconsistent income streams, this future will be appealing. However, for those who are unable to adapt, this future will be precarious, and their ability to take a reduced salary (or contract amount) in order to focus on making an impact will diminish.

FUTURE SKILL: Identifying and advocating for authentic information  
(Disruptive Communication and Information Shifts)

It will become harder, not easier, to figure out what is truth and reality on the internet and in the virtual world. Algorithms will improve in their ability to mimic human communication, and both malicious and merely opportunistic actors will exploit this constantly. This morass of noise will make getting the truth about crises all the more difficult, and impossible to manage by a centralized organization. It will be essential for humanitarians to have an innate sense of when video, images, VR experiences, or texts are fake, and to have means of communicating this to others. This will enable appropriate setting of priorities within organizations and well-coordinated efforts on the ground.

FUTURE SKILL: Quickly building pop-up organizations and coordinating micro-hubs  
(Disruptive Organizational Shifts)

As the large and centralized organizations that form the de facto and de jure governance of humanitarian efforts decline in influence and scope, it will become even more difficult to tell who is in charge during humanitarian efforts involving diverse actors. Large quantities of data will be available for people who know how to use it. Being able to quickly design and implement lightweight coordination structures, both in terms of software and group process methods, to route people and resources effectively will be extremely valuable.

Mohamad Al Asmar of the Humanitarian Leadership Academy in Jordan articulated a need for something like an “air traffic control system for people” to direct them to the right resources for their context. People who are trying to emigrate, for instance, may be unaware of resources that might allow them to stay in their home country in lieu of making a dangerous trek to a place that may or may not welcome them. If they are set on leaving, they would greatly benefit from knowing which places are willingly accepting more immigrants from their area and which places are not. Something like this would benefit both source and recipient countries.
FUTURE SKILL: Maintaining emotional, complex relationships through virtual media
(Disruptive Communication and Information Shifts)

A lot more happens in an office than people just completing tasks in the same place. In person, people are able to communicate in nuanced ways to navigate complex situations and form personal relationships that reduce friction when working together. As more and more work is done remotely through virtual media, this interstitial connection is easy to lose and work can suffer badly from it. Being able to communicate in rich, dynamic ways virtually, and maintain relationships that go beyond just conference calls will be essential for getting work done, not to mention feeling emotionally fulfilled. This skill will cut across nearly every sector, but its presence in the humanitarian sector will be of most value when professionals and short-term volunteers are working together remotely on projects. Volunteer management and the ability to work in horizontal teams will be of more use in the humanitarian sector than the more hierarchical and profit-focused corporate world.

This skill will also be important outside of the workplace. As work becomes more remote and dispersed, it will also be an essential skill for managing family life and personal connections. This is very important for disaster preparedness and recovery. As Director Susana Juangco at the Office of Civil Defense in the Philippines explained to us, national resilience begins with resilient families. If families are prepared for disaster, then their province and nation are prepared by extension. Families that are able to remain connected and coordinated even in a world of remote, virtual connections will be an essential facet of disaster preparedness in the future.

FUTURE SKILL: From tracking and quantification toward authentic representation
(Disruptive Monitoring and Evaluation Shifts)

Donors are demanding increasing amounts of quantitative data to verify and track the impact of their donations. This will increase accountability in some situations, but focusing on the quantitative in this way can come at the expense of some of the nuances of humanitarian work, especially as it involves the holistic wellbeing of families and individuals. However, methods to accomplish both tasks will emerge, enabled by ubiquitous new forms of media. In the next decade, we will not be using cellphones, but instead some form of augmented reality devices. Since every humanitarian worker will have something like this, donors will be able to receive real-time feedback in much more complex formats than numerical metrics. The process will be less about information analysis and more about information facilitating, allowing beneficiaries
to connect directly to systems that process and analyze the information to greater or lesser degrees before sharing with donors and constituents.

Mr. Zaid Qardan spoke eloquently about this tension between quantification and individual suffering. “One of the things that is frustrating to me is that humanitarian crises can be about reporting numbers. Let me give you an example. Some months ago there was a mini storm [in Jordan], but it got really cold. 15 children died because of the cold. More frustrating is that it is reported as a number. We say “20 people died in a bombing in Yemen.” As humanitarians, we take this differently than other people. We need to reach a stage where this is not acceptable. Killing a child, any child, should not be acceptable. Allowing them to die should not be acceptable. There are rare cases where individual people get international attention...but then 15 children die in a refugee camp and no one hears about it. This is what I hope the future is that we will find a way to really have empathy. We should make a huge effort, if in 10 years we would agree that people cannot endure this kind of suffering.”

FUTURE SKILL: Bottom up accountability and role transformation—especially for men

(Disruptive Political and Economic Shifts)

In many places around the world, societies are experiencing dramatic shifts in roles around gender and race. There are more ways within and outside of organizations to enforce accountability for those who abuse power, especially through social media. However, the biggest thrust of this shift is not a technological one, but cultural. Oppressions and power imbalances between races and genders that before were seen as business-as-usual are no longer acceptable. The humanitarian sector has not been immune from this shift even in the present, with several high-profile scandals recently coming to light. In the next decade this trend will continue and intensify. It will be imperative, especially for men, to develop skills for understanding their power and privilege, and to modify their behavior to work as effectively as possible. This skill is not specific to the humanitarian sector, but it is of exaggerated importance in a humanitarian context because the work often deals with people when they are at their most vulnerable.

FUTURE SKILL: Organizational wayfinding

(Disruptive Organizational Shifts)

Even more so than today, the humanitarian sector of the future is an ever-shifting morass of many different organizations with often dramatically different, even opposing, incentives and motivations for being involved in humanitarian crises. No single entity is going to have the ability to effectively maneuver, arbitrate and coordinate everyone involved. Because
of this, people will be needed who exist at the edges of several organizations at once and act as guides and navigators. People with this skill will be the glue that holds together humanitarian efforts as they become more distributed and less centralized around the efforts of large INGOs. Different actors will gravitate toward organizational wayfinding roles for a variety of reasons. Some people will engage in it out of altruism, but others will create a brokerage business within the humanitarian sector, helping people find what they need between or within organizations only at a profit.

Sherly Malanos at PLAN International told us about a tool that PLAN and other NGOs and INGOs have developed with the Start Network to better get talent when it is needed during emergencies. It consists of a shared roster of individuals with pre-vetted skills across organizations that during a disaster can be accessed by any organization within the network as most needed. During “peacetime,” organizations commit to not using the roster, to prevent its use for talent-poaching or unfair competitive behavior between organizations.

**FUTURE SKILL: Building resilience with recovery**
*(Disruptive Natural Crisis Response Shifts)*

Climate change is not temporary. It is a fact of life, and even if we immediately take the most drastic preventative measures available to us, things will continue to get worse for some time before improving. Because of this, no natural disaster will be usefully treated as an exceptional or one-off event. Essential to managing this new reality will be incorporating resilience projects into recovery projects. As Emily Monville-Oro at the International Institute of Rural Reconstruction in the Philippines explained to us, it is important to use the rebuilding period after a crisis to upskill people and embed climate-resilient practices for agriculture, infrastructure, and more into communities. This is key to ensuring that natural events do not become disastrous, and to limit the human suffering caused by increasingly frequent extreme weather events. She used examples of planting seeds during recovery efforts, or using post-disaster education and training to introduce more climate-resilient rice cultivation practices. She was adamant that skills were a necessary but incomplete part of successful recovery efforts in the future. As she put it to us, “It is beyond skills...how to survive constant disruption.”

**FUTURE SKILL: Technology ethics**
*(Disruptive Political and Economic Shifts)*

In the humanitarian sector, there is more to consider when innovating with technology than simply whether it can save money or time. Understanding how to think about the ethical impacts of technology will be an essential humanitarian skill, especially as more corporate actors enter the ecosystem. This does not mean everyone needs to be a technology expert; however, it does require more than a superficial understanding of technological systems in order to be effective. Many machine learning algorithms require labeled datasets, and we may see the outsourcing of micro-work for this labeling to displaced people who need work. There will be debate over whether and how this can be implemented in a way that provides fair compensation and ethical conditions for the displaced people doing this work. Mais
AlDaoud at the Crown Prince Foundation of Jordan emphasizes how preparing youth for the ethical complexity of the future reaches beyond simple task-based skills. She emphasized to us that “the most important factor is teaching values like acceptance, appreciation, and belonging” to form an ethical foundation for navigating the future effectively.

**FUTURE SKILL: Spinning up networks**

*(Disruptive Natural Crisis Response Shifts)*

One of the promises of technology in the wake of natural disasters and crises is using data to more quickly and effectively deploy services. However, this can be very difficult if ICT infrastructure is affected during the crisis. Being able to deploy and operate temporary networks during a crisis will be an essential skill for humanitarian workers of the future. These networks will not always be technological, but may instead be social, or a combination of the two. A simple example of this is the shared talent roster that is used by NGOs in the Philippines during crises. They have an agreement not to use the roster to “poach” talent from each other during peacetime operations, but when a crisis hits, they are able to use it to access talent from each other as needed. Another famous example is the network spun up by Patrick Meier and many volunteers as described in “Digital Humanitarians.” It was both a social network of volunteers, and a technological network based online. It was created in a lightweight way, lasted as long as it was needed and then dissolved until it is again necessary. This is a dramatically different skillset than accessing well-tested tools and organizational structures, but will be a much more effective way of addressing crises, amplified by increasingly user-friendly technologies like mesh networks and solar micro-grids.

Talking with Provincial Disaster and Risk Reduction Office Management in the Philippines, they expressed that the most successful strategies for the future lie at the intersection of science and indigenous practices. Local communities often have their own successful strategies for dealing with disasters, and supporting these practices with things like data collection and analysis, as well as access to knowledge and equipment to use emerging technology, will generate the best results. In other words, “spinning up networks” is not about creating something to parachute into a situation and parachute out, but is something to actually embed into existing communities and practices.

**FUTURE SKILL: Balancing privacy and donor demands**

*(Disruptive Monitoring and Evaluation shifts)*

In ten years, the ability to record and process a high volume of very immersive media in real time will be available to almost everyone. We will not be using cellphones but instead some kind of augmented reality device. Because of this, it will be possible to record very rich information and feedback for donors in an automated way simply by recording feeds of program activities and sharing them directly. However, although this has potential benefits for the clarity of feedback to program sponsors, it has equal potential to be very invasive for program beneficiaries, and to violate their right to privacy. There will not always be a specific
organization or set of organizations overseeing activities, and the ethical lines will not always be clear, even less so than they are today. Because of this, it will be a necessary skill for individual humanitarians to navigate this terrain and know when a line is being crossed.

**FUTURE SKILL: Working with automated funding mechanisms**

*(Disruptive Funding Shifts)*

A common issue today for humanitarian projects is the presence of unique and complicated guidelines that each donor requires for projects. For a holistic project requiring several different kinds of funding, this can mean huge amounts of time managing different donor requirements in addition to the actual project work. In the next decade, some donors will automate their requirements in the interest of objective giving, easier tracking, and accountability. In some cases, clear requirements and simple funding request processes will mean an easier and more seamless experience for beneficiary organizations. In other cases, it will be more frustrating, since automated systems are inflexible in a way that human organizations are not. In either eventuality, humanitarian workers will need to develop a new skill of working with automated funding mechanisms, which will be in some ways similar to grantwriting today, and in other ways very different. Automated systems lend themselves to quantitative and categorical information as opposed to qualitative information, so these kinds of information will have increasing weight.

**FUTURE SKILL: Humanitarian business design**

*(Disruptive Funding Shifts)*

For better or worse, humanitarian programs will be expected to run themselves more like a business. In some cases, this will mean emphasizing growth and minimizing costs in the way that a business might, and in other cases it will mean literally expecting humanitarian projects to generate their own revenue and be self-sustaining. Designing humanitarian programs that meet these characteristics without sacrificing positive effects to beneficiaries of the programs will be challenging, and require different skills than today’s program design. Unsurprisingly, the pressure to generate revenue will often conflict with what is best for the people involved, even if it makes the program more financially “sustainable.” It will be essential for humanitarians of the future to be able to understand which business-friendly programs look good on paper, but don’t actually reduce peoples’ suffering or meaningfully empower beneficiary communities.
These scenarios are short scenes from the humanitarian sector in 2030 to bring the future to life in a different way. They draw on the disruptive shifts and future skills to illustrate what this world might look like, for better or worse.

**MIGRATION AND DISPLACEMENT HUB SCENARIO**

In 2030, permanent hubs are set up in areas with high rates of international migration. These hubs provide programs to potential migrants and refugees. This includes people moving by choice to seek what they perceive as better opportunities elsewhere, out of economic desperation, or because they are forcibly displaced by conflict or natural disaster. These hubs exist ostensibly to aid these people by providing programs to help them stay where they are, or if they must move, by providing them with accurate information so that they move to a place where they will be at least somewhat welcome and supported. However, in reality the programs and information are heavily influenced by the political motivations of the donors, who are usually nation states. Many of them are funded by xenophobic governments and often overpromise on their results. Providing information about where to go is as motivated by desire to keep migrants and displaced people out of the donor country as it is motivated by desire to help them. This provides a new set of challenges for refugees who have already faced incomparably challenging and fraught journeys.

**NATURAL DISASTER DRONE DELIVERY SCENARIO**

In 2030, unpaid volunteers help deliver packages of food, water, and supplies via drone after a typhoon-caused flood. The volunteers are based all over the world, and control the drones remotely from their computers. The volunteers are coordinated through a gamified system that uses points and scores as both a way to coordinate the activities of the volunteers, and to keep them engaged for longer through a sense of fun, competition, and cooperation. The drones are equipped with video, audio and automatic translators. However, the translator often does not function properly. What is clear, even with the mis-translations, is that although the physical supplies are helpful, many of the
affected people are in greater need of psycho-social support than material support.

REFUGEE CAMP MICRO-WORK SCENARIO

In 2030, a displaced person in a refugee camp is living in a standard-issue tent. They have access over their phone to a form of micro-work where they are doing very basic tasks (image recognition, for instance) for a very small amount of money (some kind of blockchain currency). The micro-work app and the camp are run by the same company that garnishes value from both systems. The food in the camp is not free, or only a tiny amount is free—they can pay for more with the currency from the app. There are also other services available in return for payment, like identity verification, or the ability to use the wifi connection for something other than the micro-work platform. At some point, they see a brochure that talks about how humanitarian programs should be self-sustaining, and that micro-work is creating opportunities for refugees who couldn’t work before. It also becomes clear at some point that the only, or at least by far the easiest, way to get a permit to settle in the host country of the company running the camp is to earn enough of the app currency. However, the system is set up in such a way that this, in reality, isn’t really possible to do.
These archetypes represent some examples of different kinds of humanitarians that will exist in the world of 2030. Each one of them draws on the future skills in different ways.

**THE GIG-HUMANITARIAN**

Many people want to contribute to humanitarian efforts but have limited time and resources to do so. It can be difficult for people in this situation to contribute usefully beyond donating small sums of money. In 2030 this is no longer the case. A combination of software-based project management tools that divide projects into isolated tasks or “gigs,” combined with remote-controllable devices like drones, allow people to contribute on a task-by-task basis to humanitarian efforts in a way that is still very useful and valuable. Gig-humanitarians might get paid for some gigs and not others, subsidizing their work with other more financially lucrative for-profit gigs or tax incentives.

**THE DISPLACED REMOTE WORKER**

The displaced remote worker takes advantage of opportunities for online micro-work and gig work regardless of their location or circumstance. Using low-cost augmented reality headsets, they access any work they can find. Leveraging these resources allows the displaced remote worker to save for the future and contribute to projects even if their movement is limited geographically. Despite this, the displaced remote worker is still very vulnerable, and some settlements require mandatory work as a prerequisite for accessing services. Although the displaced remote worker is able to generate an income for themselves, they are confronted with the irony of having nowhere to spend it since wait times for acceptance into a host country remain lengthy.

**PART-TIME CORPORATE HUMANITARIAN**

The part-time corporate humanitarian works for a for-profit company that does not focus on humanitarian work. However, humanitarian
projects are a big part of their life, and they spend a huge amount of time and resources contributing to them. The company that they work for not only accepts this, but actively encourages it, seeing it as part of their corporate impact and brand. The part-time corporate humanitarian is able to use their stable income and lifestyle to become a load-bearing part of humanitarian efforts over long periods of time. In many cases, they can devote more time to a project than full-time humanitarians, since their efforts are not contingent on grant funding for their positions within the projects.

THE HUMANITARIAN ENTREPRENEUR

The humanitarian entrepreneur believes that only self-sustaining business models will work for managing the issues of 2030. The humanitarian entrepreneur is highly dismissive of old methods of humanitarian work and the humanitarian sector in general. They see themselves as highly pragmatic. Although they are as hyper-focused on impact as any career humanitarian worker, they are willing to make compromises in order to make their business models work. In the long run, they see this as providing far more reliable impact to people than unpredictable grant-based models. They sometimes cut corners, but their ability to quickly adapt and prototype in new circumstances and their focus on quantifiable and scalable solutions allows them to help many people, albeit sometimes not very deeply.

THE TRADITIONALIST

Full time humanitarian workers have not disappeared in 2030. The traditionalists work full time for humanitarian organizations. However, since these organizations are much smaller in size, they are constantly switching roles and functions within the organizations. Their deep expertise in humanitarian projects and principles is a backbone of humanitarian efforts, and they still form the archstone holding together most projects. The traditionalist still relies on grant funding from donors to maintain their position. In the politicized environment of 2030 they are adept at managing donor goals and motivations while still remaining true to the spirit of the humanitarian principles.
THE PEOPLE WEAVER

People weavers are masters of getting people to the right place at the right time. They sometimes work within a specific organization, but often work at the edges of many, picking up gigs and contracts along the way to sustain their work. Their main skill is connecting people between organizations, large and small, for-profit and nonprofit. In the chaotic and shifting world of the 2030 humanitarian sector, they are the ones that form the “glue” of many multi-party efforts, gently connecting people to complementary counterparts in other organizations, locales, and industries, and finding overlapping motivations that allow them to collaborate effectively.

THE DISASTER SYSADMIN

Most of the time, the disaster sysadmin isn’t involved in humanitarian work. This changes when their community experiences a crisis or natural disaster. With a kit of easily deployable tools they quickly set up intranets, GPS services, satellite links, and sensors to get their community connected, communicating, and collecting data about the crisis without delay. Although many of the tools are designed to be plug-and-play, the disaster sysadmin helps keep them running and interoperating until official municipal or regional networks are able to resume functioning.
Conclusion - Humanitarian Innovation

Perhaps the most important thing to remember as we think about the future of humanitarian skills is that this future will be different than that of skills in other sectors. The goals of the humanitarian sector are entirely different than those of the corporate sector, and indeed even government or foundations outside of the humanitarian sector. To learn from the things that work in these sectors is a different project than to become them. There is much to be critiqued about the humanitarian sector, and those with deeper knowledge, experience, and reason than the authors of this paper have done so usefully. The fact remains that for millions of people across the world in the deepest crises of their lives, the humanitarian sector is the only lifeline available. It would be a tragedy of historical proportions to abandon the project of creating and maintaining a set of organizations that seek to reduce human suffering for anyone simply on the basis of their being human. Helping others in a way which also serves the interests of a corporation, nation, or individual is not automatically negative, but it is not the same as dispassionate humanitarianism or altruism. In a world obsessed with constant change and progress, the authors of this paper suggest that Dunantist humanitarian work is something worth fighting to preserve.

It is also worth mentioning that innovation in the humanitarian sector may be the most difficult kind of innovation. In venture capital, a rule of thumb is that 90-95 percent of investments will fail; the goal is that the remaining 5-10 percent of the successful projects will cover the costs of failures. Although venture capital is far from the last word in innovation, it is representative of the fact that innovation requires a lot of mistakes before finding something useful. Importantly though, mistakes in the humanitarian sector can mean far more than just a failed software product because they involve people at their most vulnerable. This presents humanitarian workers with an ethical dilemma. We must innovate in order to provide the best possible services for people but it is irresponsible to experiment on the poor or vulnerable. Because of this, it is essential that humanitarian innovation be driven by the affected people themselves, as only they can determine what risks are worth taking. We heard this emphasized over and over by the people that we spoke with: successful innovation begins with supporting strategies that communities are already using to help themselves.

If this report does its job, it will be the beginning of a conversation, not the last word. We make the future. How we do that begins with the conversations we have today, and what we do to equip ourselves for the challenges of that future. If the ideas here provoke something for you, please reach out. We want to keep evolving together and working together to build a future that is better for all of us.
References


