



PAPER12

More than just laboratories- The humanitarian innovation agenda and four decisive challenges confronting the sector

1 Introduction

Despite 70 years of United Nation program interventions, the need for global humanitarian assistance has never been greater since the end of the second World War¹. In 2014, an estimated 141 million people were affected by natural disasters and a further 59.5 million were forcibly displaced by violence and conflict.² By the end of 2015, the figure for displaced persons had reached 65.3 million people.³ Amplifying this instability is the slow progress of changing the vulnerability of people living in many countries. Notwithstanding advances made from the MDG's targets, there remain 836 million people living in extreme poverty, with one person in every five, in low income countries trying to live on less than US\$ 1.25 per day.⁴ An estimated 795 million people are suffering from malnutrition^{5,6} and while Asia has the highest absolute number (two thirds the total), sub-Saharan Africa has the highest prevalence, with one quarter of all the population malnourished.⁷ Coupled with this increase in demand for urgent humanitarian assistance, is the increase in cost of providing that aid. In 2016, approximately US\$ 25 billion was raised for humanitarian assistance, which was a value 12 times greater than 2004⁸ and yet, represented a US\$ 15 billion funding gap between the need for assistance and the financing commitments from donor nations.⁹

While the main driver of increases to the scale, magnitude and cost of delivering relief aid and support to people in need are many, they are being surpassed by the rate of change to the physical environment in which people live and the context in which the aid is desperately needed. The biological systems historically relied upon to sustain human health and livelihoods are not recovering from growing environmental stress, natural disasters and climate change impacts.¹⁰ At the same time, the use of violence and conflict by State and non-state actors toward innocent civilians is increasing, but the violence is being deliberately directed to those humanitarian workers, operations and inventory used to respond to the need of people trapped in the conflict.^{11,12} Equally testing the humanitarian response system is the speed at which the urban-shift is advancing. In parts of Asia and Africa some urban spaces are growing at an estimated 1.25 million people per week¹³ which is increasing the strain on already limited resources but also increasing the community risk profile and the vulnerability to disasters and emergencies.¹⁴

When the UN Secretary General, Ban Ki Moon, convened the World Humanitarian Summit (WHS) in May 2016, he sought commitments from global leaders for new action, imperatives and direction for the humanitarian agenda. However, for the world to deliver on the landmark agreement reached at the global Summit, called the "grand bargain", and deliver more cost efficient and effective humanitarian aid, requires the innovation of systems, processes and practice to be embedded at an unprecedented level across the entire sector.¹⁵

Innovation is not a new concept or practice within the humanitarian response sector. Innovative products, applications and processes are so commonplace in functions like information communication technology, there are international guidelines for donors to standardize their implementation.¹⁶ Advances made in medical technology and applied across the community development sector have been so profound, the Global Burden Study of Disease estimated they were responsible for the highest number of preventable deaths of children under five years compared to any other intervention from the MDGS.^{17,18}

However, the approach to successfully mainstream innovation into the humanitarian system remains elusive. While one of the four themes from the World Humanitarian Summit was called “transformation through Innovation”, the sector needs to reconcile the meaning of innovation and understand its implications before moving forward with the practice. This includes creating principles, business structures and partnerships necessary to innovate beyond product development.

This paper frames humanitarian innovation as a series of critical challenges for the sector to confront, overcome and advance. The first relates to the meaning of innovation itself and the way in which the sector interprets and applies the action of innovating. The second challenge concerns the changing nature of humanitarian assistance. This paper posits, that current humanitarian policy and practice forged by historical events, is losing efficacy not because of poor design or implementation, but rather, because of the change in nature, environment and context in which humanitarian assistance is required. The third challenge concerns the effect and influence of the donor funding community. The growth and volume in major donor funding is acting both as “push and pull” variants across the sector. The final challenge presented is described as a structural challenge. Unless the industry resolves the practice of “top down” innovation, experimentation and trial and the donor silo effect, then real transformational change will be continue to elude the sector to the cost of the most vulnerable people.

1.1 The Definition Challenge

The very nature of delivering humanitarian assistance to people in unstable and or rapidly changing physical environments, has required responders and programme implementation agencies to create and innovate design solutions for decades. The idea of innovating to achieve a program objective is nothing new to the humanitarian response sector. The business community understands innovation as an imperative and priority in business practice, critical for improving customer value and effectively managing competitive risk.^{19,20} In some industries, innovation is broadly defined, as for example “*the implementation of a new or significantly improved product (good or service), or process, a new marketing method or a new organizational method in business practices*”.²¹ Yet across the humanitarian sector, the definition and understanding of what innovation is less clear or well understood.

Former president of the Rockefeller Foundation, Judith Rodin, in discussing the evolution of scientific philanthropy defined innovation simply as “*testing different solutions, taking risk with unproven ideas and scaling what works*”.²² This sharp, simple and practical understanding contrasts starkly with that of single largest donor of humanitarian aid (in absolute dollars) globally, USAID, which refer to innovation as “*novel business or organizational models, operational or production processes, or products or services that lead to substantial improvements (not incremental “next steps”) in addressing development challenges*” and further elaborates by explaining, “*Innovation may incorporate science and technology but is often broader, to include new processes or business models*”.²³

Other industry actors have described innovation as “a process of change and improvement so that a system or organization can learn and adapt”²⁴ and the Humanitarian Innovation Fund (HIF) once described humanitarian innovation as “*doing something different at a sector/system level; seeking improvement for the sector/system; iterative*”.²⁵

Some academic’s writing on innovation in humanitarianism have defined it as “*a means of adaptation and improvement through finding and scaling solutions to problems in the form of products, processes or wider business models*”²⁶ while others have prosecuted the argument that support for innovation requires us “*not to be focused on the written definition*” but rather, to “*work on a shared understanding of the goals and ambitions*” of innovation.²⁷ It appears that the one constant within the humanitarian sector regarding innovation is that there is no agreement on the meaning, scope, focus or outcome.

Nevertheless, and despite the lack of clarity of the meaning, organizations within the sector have attempted to conceptualize how innovation might be applied across the process and practice of humanitarian work in an attempt to help advance the cause. The World Humanitarian Summit in 2014 applied a framework described as the “4Ps” to the humanitarian sector. It explained that “*Product innovation introduces or improves a product or service such as a change of food aid, the process of sheltering populations, or water purification systems;*

Process innovation is about how products are created or delivered such as developing complex logistical structures which can rapidly respond in crisis; position innovation refers to changes in how a humanitarian product or process is perceived and paradigm innovation is about change on an organizational or system level. It is not about improving an existing approach, it is about adapting to a new approach altogether.”²⁸

These examples provide a simple means of understanding how well the framework applies retrospectively to the sector. However the application of this approach is misguided for the humanitarian context. What has been lost in translation is the purpose in which this framework exists, namely, that the “4P” acts as one part of an overall business “innovation strategy” and further, provides the rationale that explains how the innovation will achieve and deliver the strategy overall.

Examples of innovation often cited by the humanitarian sector typically fail to fit within any broader strategic intention, and rather, represent a new or modified product developed for a pilot through donor agency funding. Notwithstanding Community Management of Acute Malnutrition (CMAM) and Cash Transfers, very few innovation products in the sector are ever scaled up or scaled out.^{29,30} Indeed, some commentators within the sector believe that no real innovation has been observed in humanitarian response and disaster risk management for two decades, “*limiting efforts to increase coverage, quality and value*”.³¹ What is missing from the sector, is the critical and overarching business strategy that articulates the strategic intent or advantage in pursuing innovation.

There are many parallels between the evolution of innovation practice in the business community and that with the humanitarian sector. Chesbrough³² described the term “*open innovation*” to explain the shift in the way companies had been innovating. Historically, businesses attempted to internalize the creative and innovative process, funding large research, development and design laboratories and funding this cost by selling market successes at high margins.^{33,34} Humanitarian actors have followed the same path, creating innovative approaches for data collection or communication technology and seeking to fund development through pilot projects in the hope that success will land larger grants.

Despite the clear application of “open innovation” principles to the humanitarian sector, the most critical challenge for the industry as a whole is to answer the question, “who is the customer for which we are trying to provide value?” The answer to this question may first appear to be obvious, but in reality, it is not and represents a paradox for the sector. For many organizations, the donor is ultimately the customer but, the community to which the innovation is targeted, is the beneficiary. Like all customers who “purchase” a product or service, the natural focus for all organizations is to provide the best value proposition to the customer, so as to increase the chance of repeat business, either from the existing opportunity or another opportunity in the future. The critical question for industry actors becomes, where does this leave the beneficiary, and how can the humanitarian system re-orientate itself to provide better value to the community (beneficiary) in need? The distinction between customer and beneficiary is not unique to this sector, however the difference is that “product and service” are life-saving interventions and not choices formed on value propositions.

1.2 The Context Challenge

The humanitarian sector has evolved from a foundation of practical action and political imperative.^{35,36} While the system implements and monitors program responses, at times heralded as successful (particularly rapid response to disasters like Typhoon Haiyan, Nepal Earthquake, Syrian refugee crisis)³⁷ the context in which people need assistance is radically shifting and as such, so too must the humanitarian response change in order to succeed.

There has been a global change in the act of, and risk from, violence within States. In places such as central and South America, nine out of ten violent deaths occur outside armed conflicts.³⁸ State based conflicts are becoming more protracted, lasting longer and the International Committee for the Red Cross has created a new expression, called SOTW (situations other than war).³⁹ At the time of writing of this paper, the head of the UNHCR, Filippo Grande, was expressing his concern that one million civilians (of which 60% were children) were preparing to flee the city of Mosul as the military offensive to recapture control from ISIL intensified. His urgent comments included the startling statement that “*there is no indication that the rights of these civilians will*

be respected or honoured” and while the existing refugee camp could accommodate 60,000 they needed to prepare for a further capacity of up to 400,000 people.⁴⁰

The sector needs to find innovated responses in the face of such radically changed operational environments. Civilians are being targeted and used as human shields, or being forced into the field of battle and crossfire as they flee, as occurred in Falluja.⁴¹ In Aleppo city, thousands of innocent civilians were running out of food, safe water, basic medical supplies, with numbers estimated by the UN chief Stephen O’Brien, to be in the order of 200,000-300,000 people.⁴² The UN/Syrian Arab Red Crescent aid convoy, intended for 78,000 people in Aleppo was targeted and bombed, effectively obliterating any aid for the people in the city.⁴³ In October 2015, a US air strike destroyed a hospital in Kunduz in Afghanistan, run and operated by Medicines Sans Frontiers (MSF) killing 24 patients, 14 staff and 4 carers.⁴⁴ In August 2016, a strike on a hospital run by MSF in Yemen, left 11 dead and 19 injured.⁴⁵ A bombing of Al Quds hospital in Aleppo killed at least 20 people⁴⁶ and a terrorist bombing targeting a hospital in Quetta in Pakistan killed at least 70 people.⁴⁷ It is estimated that in 2015 alone, 287 humanitarian aid workers were attacked, 109 killed and 68 kidnapped.⁴⁸ This increasing trend of attacking humanitarian operations has been described as creating a “*feast or famine edict*”, where thousands of organizations respond to one emergency (such as Haiti) perceived to be safe, compared to only a few in an emergency equally as dire (south Sudan).⁴⁹

Population densities are changing as the shift from rural to urban living accelerates. It is estimated that 54% of the global population currently live in urban areas and this proportion is projected to increase to 66% by 2050.⁵⁰ In south Asia, 190.7 million people reside in an urban slum and in Dhaka the proportion of urban people living in slums is 40% of the total urban population.⁵¹

These changes in context and environment, ultimately effect the nature of the humanitarian response. The current system was designed for rural camp settings and short time frames⁵² and is not currently structured or geared to provide the flexibility, consistency and reliability to respond to the challenges posed by this dynamic new context. The “system” requires a re-think of its collective strategy, business plan and operational imperative to confront this new reality. This change can, and only will be bought about through bi-lateral and multi-lateral leadership and through creating innovative strategies, structures, plans and approaches. Significant structural innovations have been previously proposed, such as, amalgamating ten multi-lateral programme agencies to form one response entity and create lines of accountability within the structure.⁵³ Other proposed innovations have included the creation of mechanisms for local NGO responders to be direct funded without the need for larger INGOs.⁵⁴ Now is the time for such proposals to be tested, developed and implemented.

1.3 The Donor Challenge

The growth in the number of donors and the scope of funding for innovation has grown exponentially over the past six years.⁵⁵ The need for wholesale innovation to deliver improved systems of aid is undeniable and the speed at which donors across the entire sector, including multi-lateral, bilateral, not-for profit, private philanthropy, foundations and private companies have equally created the “drive for change” should not be surprising. To offer one snapshot of the extent to which funding “innovation” now pervades the donor landscape, consider the following examples: DFAT innovation Xchange (AUD\$ 140million); DFAT Pacific Sports for development Partnership Innovation Fund (AUD\$ 29million); Humanitarian Innovation Fund (ELRHA) (co-sponsored by DFID, Dutch Ministry of Foreign Affairs, and SIDA)(GPB£ 50,000-150,000 per recipient); UNICEF Innovation Fund (raised US\$ 9 million); WFP Cooperating Partners Innovation Fund (US\$ 1 million); Google Impact grants (AUD\$ 4.5 across 10 organizations); GSK healthcare innovation awards (US\$ 1million); Global Innovation Fund (US\$ 200 million over 5 years); OCHA Humanitarian Research an Innovation Grant (US\$ 4000); Verizon’s Powerful Answers Award (US\$6 million); Bill and Melinda Gates Grand Challenges (up to US\$ 1 million per award) and the MacArthur Foundation “one hundred million and change” awarded to one single recipient.^{56,57}

While the major increase of finance from donors to fund innovation in the humanitarian sector has been a critical driver for the discovery of new and better ways of delivering humanitarian aid, it has also served to send two clear signals to the sector. The first is that innovation must be part of normal business process and practice. Some actors read the signal early and established innovation laboratories to mix knowledge, experience, creativity and entrepreneurship to kick start innovation pipeline thinking. International Non-Government

Organizations like World Vision, Oxfam and Internews, established innovation labs⁵⁸ along with UN programme agencies.⁵⁹ Bi lateral agencies such as USAID have created “Development Innovation Ventures” to help develop and fund the innovation process, similar to that created by HIF and DFATD, establishing the partnerships for development innovation branch, to increase the success of innovation through partnership development.⁶⁰ The second signal is that humanitarian organizations need to rethink their focus of innovation beyond simple pilot process or product innovations predominantly involving ICT’s. Strategic plans need to be created to leverage partnerships that enable innovation for humanitarian practice and policy both systemically and sustainably. This requires multi-disciplinary leadership which understands that creating opportunities for change agents, or social entrepreneurs or humanitarian practitioners, is equally as important as forging industry wide standards and partnerships around functional program implementation.

The industry needs to embed dedicated innovation discussion within and across the sector as a normative process and practice. This requires leadership not only from within organizations working in the sector, but between organizations. For example, rather than NGOs competing for the same grant opportunity in WASH or shelter, they could combine technical and creative resources and form consortia that act in collaboration rather than competition. Roberto Verganti ⁶¹ described an approach readily applicable to the humanitarian sector. He described a business practice called “design-driven innovations”, where the objective is to create the vision for the customer that drives the market demand and therein create the new market opportunity. This approach aims not to push new technologies into the market but rather to push new meanings.

1.4 The Structural Challenge

Three constraints preventing the potential for innovation within the humanitarian system are best be described as structural challenges. The first is the historical approach to design and implementation of programme responses, often referred to as the “top-down” approach. In many respects, this is where the greatest focus for “innovation” has occurred within the sector, being the “internal” activities and practice of aid delivery. The use of ICT in particular and especially drones; remote sensing tools; the capture and use of data; real-time and near real-time processing; emergency communication systems; needs assessments and mapping to name a few, have all proved remarkable innovations in the operation, but not necessarily adding value to the community in need.^{62,63,64} The system has evolved to orient toward a “standardized” response, which is monoclonal and rigid, devised on a series of sub-specialties (security, protection, agriculture, shelter, health, WASH, food, education, economic recovery) which often act within the silos of their unique programmatic practice.⁶⁵ While this is not problematic per se, it ingrains the “one system fits all” approach to response. Assessing the type and nature of response based on the capacity of the State/s affected has been proposed as one innovative alternative, which involves developing an assistance package not based on program logic, but tailored to the socio-political and context specific reality.⁶⁶ ALNAP’s “four model response-engagement” was based on a country classification system. For example, “comprehensive” (needs are great, government capacity lacking); “constrained” (conflict and challenged humanitarian principles), “complementary” (low/ middle income countries with growing capacity) and “consultative” (middle/high-income countries with technical gaps).⁶⁷ Another innovative alternative proposed has been design responses based on the type of crisis, where variables within the crisis dictate the priority of sector specialities included in an intervention and then integrated across specialized areas.⁶⁸

A common issue for “top-down” mentality that creates its own challenge is the role of the community in the design of the innovation. Humanitarian community practice is based on partnership, mutual participation, understanding and trust. At the very centre of every humanitarian response action, be that rapid onset emergency relief, or longer-term response to a protracted crisis, is the community itself. Yet the humanitarian sector continues to struggle to recognize the point along the innovation cycle at which to engage and collaborate with the community to create the innovation. User-centred innovative design and community participatory methods are not mutually exclusive and have been successfully achieved in humanitarian responses.⁶⁹ The American Red Cross used such methods in establishing fire detection sensors in informal settlements in Nairobi⁷⁰ and Digital Democracy partnered with the Indigenous Wapichana people of Guyana to build and operate drones to monitor environmental degradation.⁷¹

The second structural challenge is solving the conundrum of testing or trialling experimental products, methods or programs without compromising ethical requirements, and the humanitarian charter to which vulnerable community members rely.^{72,73} The sector has been slow to seek viable alternatives and solutions to trialling high risk or challenging innovative ideas without risk to vulnerable populations. This suggests product development processes (testing, lead in and development time) need to be carefully considered to allow for a slower uptake. On the same token, there is no reason why conceptual frameworks for innovation cannot be tested prior to implementation and then introduced to achieve scale and return on investment. Organizations such as MSF⁷⁴ and UNICEF⁷⁵ have well developed codes of conduct to specifically address innovation within their work practice. Indeed, MSF have arguably developed the most advanced code, clearly recognizing the risk to innovation from pre-existing research and ethical frameworks. They have developed new processes that protect both the most vulnerable in the community, while at the same time promote and enable innovation to be created and advanced within their operation.⁷⁶

The third structural challenge relates to the system constraints created by donors and their organizational practices and policy. Donors frequently dictate all the program parameters, for example, the periodicity of program responses. If relief financing is earmarked explicitly for response to the immediate crisis, there is no scope or opportunity to design for transition toward tackling the longer-term systemic need. Likewise, is the example of donor demand to increase cost efficiency, which is a reasonable and normative business practice to seek greater return on investment. However, in the theatre of humanitarian operations, where costs of aid delivery and implementation are increasing against a reduction in overall financing, developing ideals based on efficiency incentives and dividends will neither improve efficiency or stretch the US \$15 billion gap between need and commitments.⁷⁷ Alternatively, specifying more creative and innovative methods are more likely to reduce cost and improve efficiency.

2. Conclusion

Ban Ki Moon challenged the humanitarian sector to transform with creativity and innovation. It is now the responsibility of leaders within and across multi-disciplines to respond to this challenge. Innovation must now be framed from the strategy development standpoint, where business strategy drives structure, planning, process and action. Such strategies cannot be stand alone or organization specific but rather, be part of collective actions, where agencies understand their unique role and responsibility to deliver holistic as one part of the collective holistic response.

Organizations must re-think their business model so as to recognize how an innovation creates value for the customer. Only then, will they realize the structure and process that is necessary to engage and partner with knowledge holders, creators and drivers of innovation. This will not be a simple task. It requires a monumental shift in thinking away from viewing organizational success only through the lens of bottom line income growth. Success needs also to be viewed through innovation creation and major improvements to systems and new operational and policy indicators.

These barriers and challenges to innovation may first appear overwhelming, however such challenges have been overcome before. UNICEF designed and delivered a remarkable innovative crisis response trauma program where Rwandese “*trauma advisors*” were trained, “*who in turn trained 6193 social agents who provided support for 145,000 children and their families all over the country*”.⁷⁸ This was achieved without a single piece of ICT. Only through leadership will catalysing change enable innovation to create effective, cost efficient and high impact value for the most vulnerable people in need of humanitarian assistance.

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