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The two worlds of humanitarian innovation

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List of abbreviations

ALNAP	Active Learning Network for Accountability and Performance
BOP	Bottom of the pyramid
CIYOTA	COBURWAS International Youth Organization to Transform Africa
CLTS	Community-led total sanitation
ICT	Information and communications technology
OCHA	Office for the Coordination of Humanitarian Affairs
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WFP	World Food Program

Glossary

Jugaad (Hindi)	Indigenous innovation

1 Introduction

A constant challenge for humanitarian actors is how to meaningfully include and adequately consult so-called beneficiary populations. At all stages of humanitarian action, there is a tendency for solutions to be brought 'from the outside', with accountability channels directed primarily to donors rather than beneficiaries. Yet, as has been increasingly recognised, the people in need of protection, the communities themselves, frequently have skills, talents and networks that enable them to adapt and innovate in the face of humanitarian crisis. However, the humanitarian system as a whole has historically struggled to recognise and embrace the potential for more participatory and inclusive approaches, whether at the emergency, protracted crisis or recovery phases.

In recent years, discussions of 'humanitarian innovation' have emerged as a way of potentially transforming humanitarian practice. A range of humanitarian international organisations (e.g. UNICEF, UNHCR, WFP and OCHA) and NGOs (e.g. Save the Children, HIF and ALNAP) have embraced 'the innovation turn'. However, a significant proportion of existing approaches to humanitarian innovation have focused mainly on a 'top-down' approach, designing solutions that can improve organisational responses within the humanitarian context. This approach is valuable and offers opportunities to re-think responses across the range of sub-sectors that comprise humanitarianism. However, it is not the only way to approach humanitarian innovation. Alternatively, this paper argues, there is a different and complementary approach to humanitarian innovation that can be grounded in community participation, engaging the skills, talents and aspirations of so-called beneficiary populations.

These two worlds of humanitarian innovation are described in this paper as the following: one which falls solely into the institutionalised practice of a small number of humanitarian actors, and which focuses on upwards accountability to donors and traditionally takes a more 'top-down' approach in implementing solutions for affected populations; and another which fosters and builds on the existing innovative capabilities and systems of local communities. There is currently little attention given to the latter 'bottom-up' world of humanitarian innovation, whereas there appears to be a heavy focus on the world where innovation serves as a tool to solve institutionalised management issues faced by international actors. In order to address this potentially expanding gap in the understanding and practice of humanitarian innovation, this paper seeks to build new concepts in order to understand 'bottom-up' humanitarian innovation and look for ways forward as to how the two worlds can be brought closer together, addressing the challenge of finding opportunities for self-reliance amongst crisis-affected populations.

Developing a bottom-up approach to innovation is important for a number of reasons. Solutions are more likely to be appropriate and accepted by local communities. This approach can foster sustainable solutions based on self-reliance. It can also contribute to greater accountability to beneficiaries. Yet, in order to be analytically meaningful, the notion of bottom-up innovation needs conceptual work. What exactly does bottom-up innovation mean? In this paper, the concept of bottom-up humanitarian innovation is developed by drawing upon and integrating three core bodies of literature: innovation theory, design theory and participatory approaches to development.

First, innovation theory covers many disciplines and has had most attention in the form of 'innovation management studies', where innovation processes and models are described for

application in large scale business operations (for example (Tidd and Bessant 2009). Innovation theory, however, also offers concepts of 'social innovation', 'user innovation', 'reverse innovation' and 'indigenous innovation', which all make use of existing local systems and innovation from the ground up. A clear gap from this first area of analysis shows that the general understanding of what drives 'user' or 'indigenous' innovation is very weak. Little research has been done to understand how local innovation naturally occurs or may be facilitated in order to contribute to sustained livelihoods and opportunities.

Second, although design theory traditionally looks at the initial design of a product, a variety of new approaches demonstrate that design practice is no longer confined to product or process design at the start of an initiative. Design is now seen as a process which is integrated from the start through to implementation of a range of products, services and processes. Design theories have therefore begun to overlap with some innovation thinking, iterating and adapting a solution over time. Specific design approaches however, do diverge from innovation thinking and offer new insights on how to include users and local systems in designs led by external actors. 'Design thinking' (Brown 2009), as one theory, offers a holistic methodology to combine skills from multidisciplinary teams and to consider local systems in the design of a whole process. Design approaches are not well diffused into humanitarian work, but there are lessons which could help initiatives to acknowledge local systems more methodically than is currently practised.

Third, participatory approaches to development have been developed over the last thirty years to include communities in projects implemented by external actors (Brock and Pettit 2007, Chambers 2007, Hickey and Mohan 2004). Participatory approaches come in many forms, from self-help groups to community mapping workshops and are often facilitated exercises. In the literature, participation is the subject of a wide range of critical reflection (Cooke and Kothari 2001), offering an opportunity to reflect on how people's own ideas, problem-solving skills and decision-making can best be facilitated by external actors.

By drawing upon these three bodies of literature, the challenges of bottom-up humanitarian innovation can be better understood. However, individually and collectively they nevertheless leave considerable conceptual gaps. This paper therefore uses the lessons and gaps identified across these literatures to begin to flesh out an applied research framework, which seeks to capture examples and data for how humanitarian innovation may occur from the bottom-up, and therefore lead to an informed understanding and use in practice.

The framework to research humanitarian innovation from the bottom-up is intended to inform humanitarian policy and practice in considering local solutions and systems as the basis for any intervention. The framework provides a structured way to consider what humanitarian innovation can offer to overcome the challenges of inclusion, participation and fostering self-reliance amongst communities during, and for the many years following, a humanitarian crisis. This research therefore aims to create a space where the two worlds of humanitarian innovation can come together with a shared purpose that puts local systems and capacities at its core.

2 Humanitarian innovation so far

Innovation thinking cuts across many disciplines, ranging from policy and national strategies, to management studies, theories for business start-ups, individuals and local markets. The interpretation of humanitarian innovation has therefore evolved from many years of innovation theory and practice across multiple sectors and thinkers. 'Novation is a term that first appeared in law in the thirteenth century' (Godin 2008) and as a concept has moved from being defined as 'imitation' to 'invention' and now to 'innovation', (Godin 2008) each demonstrating the concept of a new idea being scaled up over time. Despite these early definitions however, literary theories on innovation were not documented until the late 1800's when Gabriel Tarde developed theories of diffusion: the way in which ideas are widely taken up by people. Tarde believed that in order to achieve social change, ideas must be replicated and adapted across societies (Kinnunen 1996).

Diffusion and innovation studies are not explicitly defined in one academic discipline but have emerged as theories which cut across a variety of studies and industrial sectors (J.Fagerberg 2005). Tarde's initial work on the diffusion of innovations was inspired by the physical sciences for use in social theories of change (Kinnunen 1996), whereby 'major social change in societies or cultures requires penetration of inventions. They are infrequent products of genius […] Innovations change the course of social phenomena and help people to adapt to their changing environment'. (Kinnunen 1996:433)

The early work on diffusion theories continued to be developed at a small scale but were more famously picked up again much later by Rogers in the 1960s, when he developed diffusion and innovation theory further (Rogers 1962, Rogers 1971). The concepts and models developed by Rogers are still widely used today. For example Rogers' S-Curve in diffusion theory is used in management thinking by individuals and organisations to help analyse the rate at which new innovations will be adopted within society over time. The bell curve below shows that innovators, followed by early adopters and then the early majority are the types of people who take on new innovations first. Over time this can be translated into an S-Curve (shown in the lighter shade below), highlighting how much of the innovations market share is achieved over time.

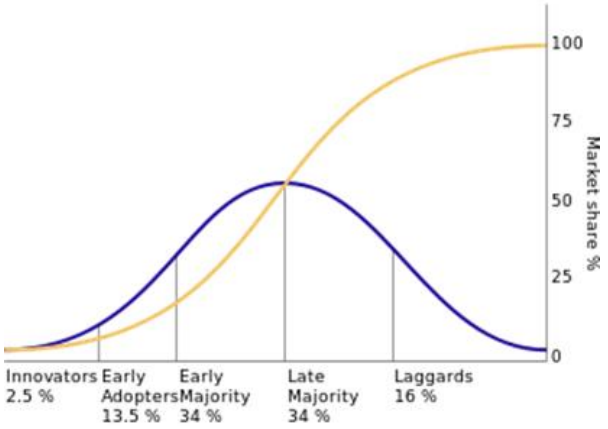

Figure 1: Rogers' adoption/innovation cycle showing adoption of an innovation over time, by different groups in society

Note on wider use of diffusion theory in humanitarianism: The concept of diffusion has also been taken into the emerging humanitarian innovation discussions (HIF 2012) to try and think about the way in which innovations diffuse amongst humanitarian agencies. Additionally, for small scale rural farming in Ghana and Cameroon, one study showed that the S-Curve holds true for the adoption of new farming equipment in the local market (Yengoh et al. 2009). The concepts and analysis of the adoption of innovations in developing countries has not received much attention, but has been used to try and understand the social influences on people's decision making and reasons for adoption (Burt 1973, Banerjee 2012). Adoption of innovations at this local scale has focused on communications, social influence and networks (Burt 1973, Rogers 1971).

Beyond diffusion theories, which have their roots in sociology, innovation management concepts define innovation as a process that goes from problem identification to development to adaption and then, finally, to diffusion of the product or process. These concepts have focused on innovation for businesses, predominantly in the global private sector. There has been no shortage of these models and concepts developed in management theory, which are widely used to influence practice in creating competitive advantage and to help businesses build and maintain a profitable space in the global market (Kim and Nelson 2000, Rogers 2003, Morel-Guimaraes et al. 2005, Kelley 2005, Tidd and Bessant 2009, Fitzgerald et al. 2010, Wojcicki 2011). The diagram below shows one of these models which demonstrates a simplified process of innovation (Tidd and Bessant 2009). This is used to introduce the concept of the innovation process: searching, selecting, implementing and capturing benefits.

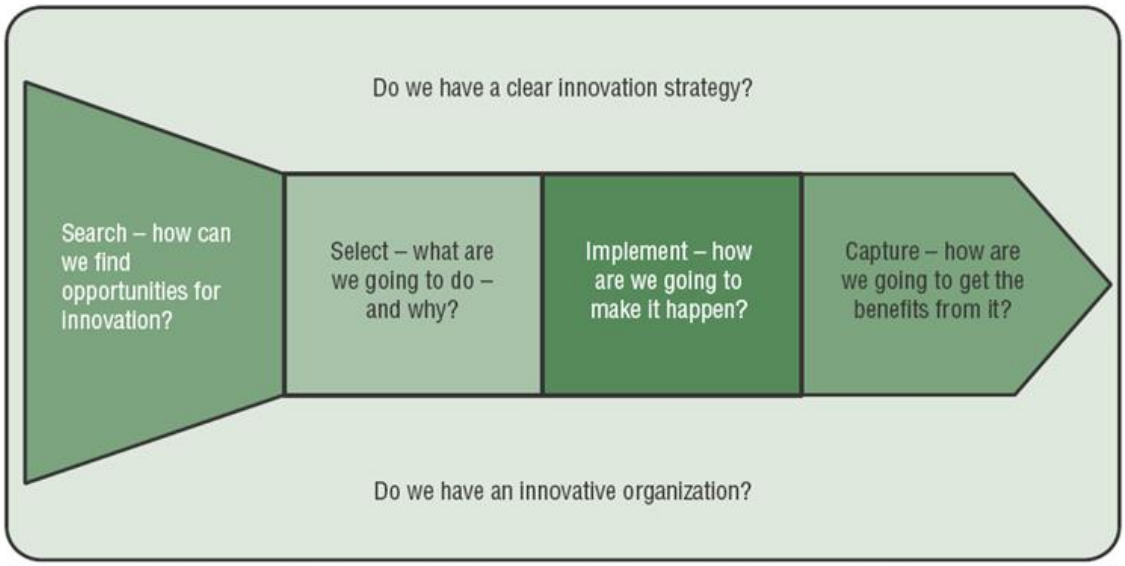

Figure 2: Simplified model of the innovation process, Tidd and Bessant 2009

However, Tidd and Bessant also discuss that a simplified view of innovation risks being taken only as a 'partial' view, since the innovation process is more complicated; it can also be incremental over time, adapted by different people, and more importantly introduces change as part of a wider system, not a 'single isolated change'. There is a significant amount of resources, such as those discussed above, on how to categorise and manage innovation within

large organisations or how to enhance an individuals' capacity to innovate for them. Innovating as a business start-up and for entrepreneurial activity is also currently a common application of these ideas. 'Risk', 'starting small', creating 'safe spaces to fail', and staying 'lean' are all terms associated with innovation since they encourage an iterative learning process that is needed to create, adapt and scale an idea. Learning takes place at each stage from the initial opportunity or problem, to piloting and then to implementation, and finally, to the ideas being scaled up by diffusion into new locations or markets. Concepts such as these have more recently been taken into new sectors, beyond their traditional use within firms.

Innovation beyond the private sector

'Social innovation' is one such concept, which has evolved from traditional innovation management theories, and is explored in more detail later in this paper. To summarise, the concepts used in social innovation build on the wider innovation process whilst focusing on social change. Social innovation, in whichever sector, emphasises the focus on society in both its intended impact and in its process (Mulgan 2007, Brown and Wyatt 2010, Mumford 2002). Socially-orientated innovations for national and regional developmental issues have also been used to inform country strategies. Innovation metrics at a national and regional level are denoted by a variety of development indicators. *The Innovation for Development Report* (Lopez-Claros 2010) uses five pillars of measurement: institutional environment; human capital, training and social exclusion; regulatory framework; research and development; and the adoption and use of information and communication technologies. The Global Innovation Index (INSEAD 2012) takes similar measurement categories, defining inputs (institutions, human capital and research, market sophistication, and business sophistication) and outputs (knowledge and technology outputs, and creative outputs). The Organisation for Economic Co-operation and Development (OECD) holds that for innovation at the national and regional levels:

> *[t]he current measurement framework fails to measure the social impacts of innovation. The development of measures that provide an assessment of the impact of innovations on well-being, or their contributions to achieving social goals, needs to be promoted. This includes better measurement of the people dimension of innovation. (OECD 2010b)*

This demonstrates that although innovation is now reaching beyond commercial incentives there is concern over how to include wider social measures, beyond traditional economic indicators. The inclusion of social measures is especially poorly documented for informal markets, micro enterprises and innovation at a local level.

Humanitarian innovation

Drawing upon a variety of existing theories (including that of social innovation), innovation has recently been developed as a concept for humanitarian action at an operational level (Ramalingam et al. 2009b, Steed 2010, DFID 2012). Although the term 'innovation' has been used to describe new products, project approaches and systems in international aid, the innovation concepts themselves have not been widely unpacked, adapted or standardised in practice or thinking for humanitarianism. 'Humanitarian innovation' therefore remains poorly understood within many international debates.

The limited amount of literature produced so far on humanitarian innovation has had a focus on innovation processes and practices specific to humanitarian agencies. In response to the Humanitarian Emergency Response Review (HERR 2011), the Department for International

Development (DFID) has adopted innovation as a central theme in its recent strategy, to guide some of its principles for doing things differently and piloting new approaches to humanitarianism (DFID 2012). This use of 'innovation' adopts the term as a creative way to encourage new partnerships and approaches, but does not define in detail its use or meaning. Ramalingam et al. (2009b) explore innovation theories a bit further by defining what is particular about its application to the humanitarian sector or by using case studies to analyse the innovation process within the humanitarian context.

Both within the humanitarian sector and in general innovation thinking, there has been a tendency to heavily focus on product innovations and physical technologies, where the 'innovation' label can be associated with a concrete material outcome (such as (AidEx 2012). In particular, many discussions of humanitarian innovation focus on product innovations, highlighting technologies such as the role of new information and communications technology (ICT) (see, for example, (OCHA 2013). However, this material view of innovation does not provide a complete or coherent perspective on humanitarian innovation. Innovation is not reducible to its product constituents. Instead it is best understood as a process: a lens for understanding incremental or transformative adaptation. A good example of this view of innovation as process is provided by the Humanitarian Innovation Fund (HIF), which provides grants for new humanitarian projects, and uses the innovation process shown below in Figure 3 (HIF 2010).

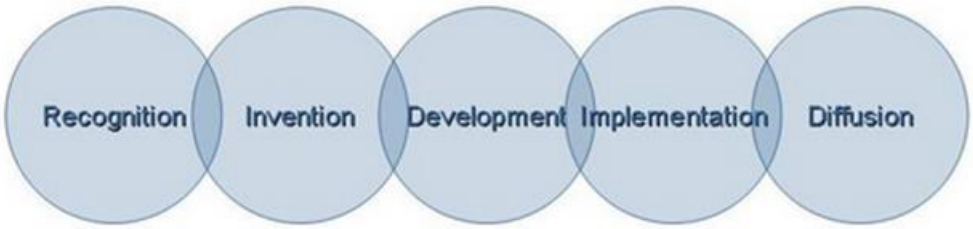

Figure 3: The innovation process as described by the Humanitarian Innovation Fund (HIF 2010)

Some approaches in which innovation initiatives have viewed innovation as a concept that goes beyond an exclusive focus on products attempt to look at innovation within the holistic context of the local market systems in which it takes place. For example, in its market-based approaches to development, the UK-based NGO, Practical Action, believes that '[i]nnovation cannot exist without markets, and markets cannot adapt and survive without innovation: they are two sides of the same coin.'(Practical Action 2013c). Here markets are seen as a central point for enabling individuals' livelihoods. In Practical Action's programmes, marginalised actors are supported to overcome the barriers to entering these markets, which in turn may contribute to wider local and national development. Although not always perceived as being solely in line with the concept of innovation, market-based approaches are widely used in development practice (SEEP 2013, Oxfam 2013), and are being further developed for first phase emergency response programming – which in itself may be considered a collaborative innovation process within the sector (Albu 2011, Barrett et al. 2009). Such approaches are highly relevant to innovation insofar as understanding that the broader market context in which adaptation takes place can contribute to unlocking sustainable and market-based solutions that may nevertheless have a social purpose (Mulgan 2007).

Despite its early stage of development, there are already some criticisms of innovation in the humanitarian arena. Some fear 'innovation' to be just a buzzword which agencies and management use blindly (Ramalingam 2013). Against such claims, though, Ramalingam (co-author of the chapter on Innovations for the 8th ALNAP Review (2009b)) suggests that if innovation is unpacked in more detail, as a process for understanding adaptation, it has potentially significant importance for humanitarian action (Ramalingam 2013) . Yet, realising the potential for innovation within humanitarianism first requires that we have a clear conceptual understanding of what innovation means.

Drawing upon the existing innovation literature, we view innovation as a process of change and adaptation. It describes a way to find solutions to problems and scale them, whether through products, processes or wider business models based on four stages. The stages are: 1) defining a problem or identifying an opportunity; 2) finding potential solutions; 3) testing, adapting and implementing a solution, and 4) appropriate scaling of the solution. The stages themselves are not linear and have feedback and learning at each stage. Figure 4 below shows this visually.

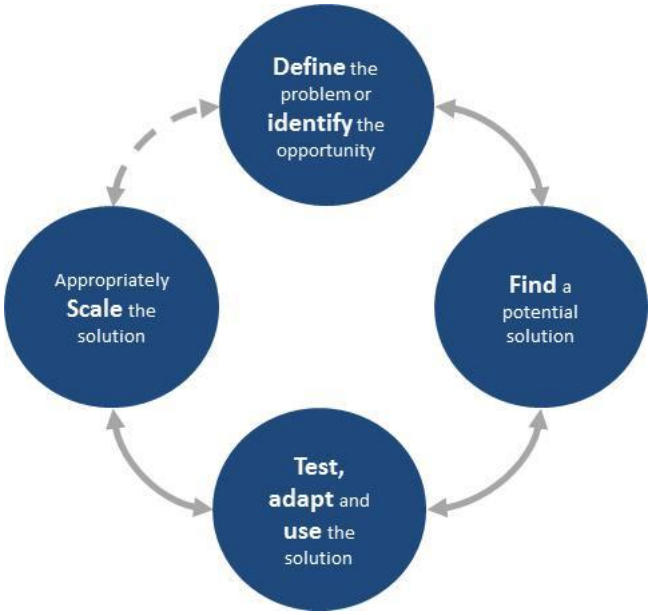

Figure 4: Innovation process used for the Humanitarian Innovation Project

This view of innovation as process enables barriers and opportunities to be identified at each of the four stages (Betts et al. 2012) It thereby opens up a perspective that can be used as a framework for both research and practice. It also provides a view that is inherently compatible with both top-down and bottom-up perspective, insofar as it enables any actor, whether an individual, group or institution, to participate within the stages of the process. It is this model that will therefore be the basis for the bottom-up innovation framework outlined later in this paper.

As this review of humanitarian innovation has shown, thinking and practice around how best to use and enhance innovation for improved humanitarian action is just starting to emerge. At this pivotal stage, this paper presents a way forward for humanitarian innovation, which captures the core thinking so far and challenges it to look closer at the innovation led by the affected populations that the humanitarian sector seeks to serve.

3 The two worlds of humanitarian innovation

An emerging discussion about humanitarian innovation has so far drawn mainly on the traditional understanding and models taken from innovation management theory. This new way of thinking may offer humanitarian actors a fresh perspective on their existing internal procedures and methods of managing programmes in complex environments. However, the application of innovation to address humanitarian and development concerns is relatively new. As its application evolves, there is a risk that innovation for humanitarian approaches will remain focused on improving internal standards and procedures for humanitarian agencies, and thereby miss the opportunity to also draw upon and foster existing innovation that is thriving within affected communities, affected populations and the 'global South', for example. Below we will begin to unpack the concept of 'bottom-up' humanitarian innovation, which puts local capacity and systems at its heart.

So what does the current humanitarian innovation dialogue tell us about the differences between these approaches? Firstly, although Ramalingam et al.'s (2009b) recommendations focus on the humanitarian agency as a key actor in the humanitarian sphere, the paper also includes recommendations to partner with actors from 'outside the sector' and that 'the innovations agenda should have as its guiding light the idea of a paradigmatic shift in attitude, enabled by the principles of disaster prevention, local ownership and beneficiary engagement.' (Ramalingam et al. 2009b:81)

'Local ownership and partnership and beneficiary participation' are underlying principles for humanitarian agencies. However, it is widely recognised that these principles are rarely executed in humanitarian and development interventions, and the ideologies which are documented struggle to come to the fore (Cornwall 2002, Byrne and Groupe Urgence Réhabilitation Développement 2003, Ramalingam et al. 2009b, Chambers 2012). Ramalingam et al. describe the requirement for gaining knowledge and experience from 'users' in order to innovate:

> *Helping people affected by a humanitarian crisis to find innovative ways in which they can help themselves is a core task for aid workers. The boundaries between a humanitarian 'firm' and its 'users' therefore should be an extremely porous one. Aid organisations give at least lip-service to notions such as 'paying attention to the views of all stakeholders' and 'involving end-users at all stages' in the design and delivery of programmes…[and] although innovations have stemmed from re-thinking the relationship between aid agencies and the recipients of aid, the recipients themselves have not been active in these changes. (Ramalingam et al. 2009b)*

It is these two worlds of the 'firm' and 'users' which we intend to describe further. The traditional 'top-down' world of humanitarian innovation may include new ideas and products that have been used in previous crises, but stories of product misuse or poor adoption of externally implemented initiatives are commonly found. In recent fieldwork as part of the Humanitarian Innovation Project (HIP 2012) in the refugee settlements of Uganda, many refugees interviewed explained that NGO interventions did not always identify their most pressing problems and therefore determine solutions. As an example, many externally distributed mosquito nets were instead used as rope in the construction of houses, since 'the same people get many nets', one refugee explained. This one story represents how 'users' may not have been involved 'at all stages'. One explanation for situations such as these may be that

there is often little time and funding allocated in NGO projects to test and adapt a solution appropriately, as is required in a process of innovation.

The struggle between these two worlds is most notable when observing the gaps between theory and practice. Theories of community inclusion are documented in principles, values and guidelines (for example *The Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in Disaster Relief* (IFRC and ICRC 1994)). However 'humanitarian interventions have historically been top-down in nature' (Proudlock and Ramalingam 2008). This has been a topic of discussion for many types of intervention and particularly in reviewing the methods of evaluation in projects to understand the impact of humanitarian aid, where 'participation by affected populations has not been a key feature of impact assessments' (Proudlock and Ramalingam 2008). This discussion also includes the question of who the evaluation or extracted information is for. Too often, evaluation is undertaken simply to satisfy agencies and donors, rather than to improve outcomes for the targeted population (Proudlock and Ramalingam 2008). Using feedback from beneficiaries to account for impact and improve projects is a challenge for the wider social sector, and rarely prioritised. This is the opposite to the private sector, where meeting the needs of customers ensures that companies stay in business.

> *In business, companies often receive a prompt wake-up call when they don't listen to their customers… In the social sector, however, we may not get timely notice if we ignore our beneficiaries. Beneficiaries have few choices. They frequently accept a flawed intervention rather than no help at all. (Twersky et al. 2013)*

The Listening Project (M.B.Anderson et al. 2012) is one initiative that tries to adopt a more bottom-up perspective in the humanitarian and development sectors, in which over 6,000 recipients, observers or providers of aid were interviewed. The project argues that:

> *If we did nothing else to improve the aid system, the very act of adding occasions and opportunities for aid providers to listen to people with whom we work, and to let them know that their ideas and judgments are valued, would by itself bring a fundamental shift in the relationship of aid providers with aid recipients. It would address the current of cynicism we hear and transform the sense of disrespect that lies at the heart of much of the disappointment with, and resentment of, aid's impacts. Listening is a value. (M.B.Anderson et al. 2012:146)*

As discussed, the underlying principles of people-centred, inclusive approaches are already crucial to humanitarian principles. However, more innovative approaches to inclusion are required to enable self-reliance and sustainable opportunities for local populations. Therefore, this paper now turns to three areas of theory in order to begin to build a framework for bottom-up innovation: innovation theories, design theories and participatory methods. These key areas focus on local innovation, 'user' perspectives and participation in the design, implementation, evaluation and diffusion of ideas and products. The paper then uses these perspectives to develop an approach to innovation that considers the cultural, social, economic and political drivers that define an individual's livelihood and customs, and thereby brings the two worlds of humanitarian innovation closer together.

4 Learning from innovation theory

The origins of the theory of innovation diffusion lie in a social context, whereas innovation theories are dominated by business and industrialised approaches with a focus on management practice and markets. However, there are lessons to be learned across the wide variety that innovation thinking offers. This section explores some key innovation themes that contribute to a bottom-up perspective. First of all this section looks at 'social innovation', followed by a focus on literature and practice in the context of 'user innovation'. The concepts of 'reverse innovation' and 'markets at the bottom of the pyramid' are then discussed, whereby innovations from the emerging markets in developing nations help to scale and drive innovations globally. Finally, the concept of 'indigenous innovation' is introduced. These themes do not focus on specific innovation models for management, but instead explore the interpretation and use of 'innovation' from a variety of sectoral perspectives.

Social innovation

'Social innovation' has many similarities to traditional management innovation in its processes. However, it instead takes social change – rather than profit-maximisation – as its main goal (Mulgan 2007, Murray et al. 2010). Social innovation has been described in relation to the work of different actors, including individuals, movements and organisations. Individuals are seen as innovators, whereas in movements, individuals carry the ideas but the movement takes centre stage to form a change. For organisations, innovation is aimed at efficiency and management. Mulgan (2007), though, describes social change as being wider than these individuals or institutions and he highlights barriers that may prevent such social change from occurring. These include too much focus on efficiency, clouding social reform potential; variation in people's interests and priorities; people's pre-existing 'assumptions, values and norms'; and, finally, managing relationships between the people who shape change.

For social innovation, 'the role of the customer changes from a passive to an active player: to a producer in their own right' (Murray et al. 2010), and there is an emphasis on collaboration and a 'creative blending of ideas from multiple sources' (Murray et al. 2010). Social innovation 'as people focused innovation' (IICD 2013) is practised by the International Institute for Communication and Development (IICD), for example, using 'participatory, multi-stakeholder approaches to seek innovative ways to use ICT' rather than seeing technological approaches as a solution to development in their own right. Many other examples of methods in social innovation are outlined in *The Book of Open Social Innovation* (Murray et al. 2010), and networks have been established to develop a practice and build knowledge networks for social innovation (i.e.SIX 2013).

In their work, Murray et al (2010) take social innovation to describe six steps of the innovation process as shown in the diagram below. In comparison to the traditional innovation processes, additional steps of 'sustainability' and 'systematic change' are added.

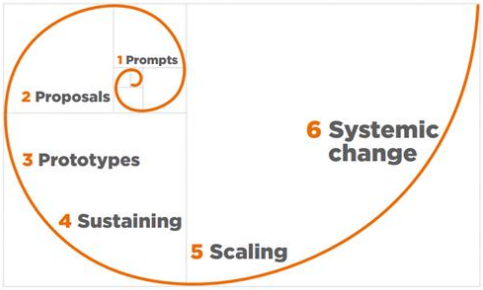

Figure 5: Taken from *The Open Book of Social Innovation (Murray et al. 2010)*

For the later stages in this process of social innovation, the scaling and systematic change require 'effective demand' and 'capacity to grow' (Mulgan 2007). It is also thought that for stages of growth, the innovation 'nearly always involves outgrowing founders' (Mulgan 2007). This implies that there is a need for flexibility and a variety of skills over time for innovations to scale up. The social innovation approach also emphasises the importance of the networks and 'linkages' that connect individuals, ideas, money and power, which can maximise the collective impact of diverse skill sets. The overarching motivation behind social innovation is to bring innovation theory closer to a bottom-up approach by more fully considering the social impact and importance of the 'customer'. However social interventions are still open to critiques of adopting 'top-down' approaches if they are not implemented with users at the core, and the challenge of measuring social impact is still unsolved in these new concepts of social innovation. This leads us to look closer at the concept of 'user innovation' in the next section.

User innovation

'User innovation' is acknowledged to be an important part of maintaining organisational 'edge'. It recognises that the observation of users and the their involvement in innovating new ideas within organisations is needed (Tidd and Bessant 2009). Consumers are no longer seen as passive users, but are understood to actively adapt innovations (Rogers 2003). Von Hippel defines 'lead users' as selected users who inform innovation (Hippel 2005). A toolkit has been produced to guide organisations on getting the most out of lead users (Von Hippel and Katz 2002). However, the collection *Perspectives on User Innovation* draws from a wider variety of stories and sectors (Flowers and Henwood 2010) which demonstrate that there is not yet a standard definition or view on innovation led by the end-users of new products or services. Users are becoming more and more integrated into innovation systems and processes, and may interact with innovations in different ways, creating innovations, modifying or even resisting 'official' innovations (Flowers and Henwood 2010). According to Flowers and Henwood:

> *…the boundary between producers and consumers of technologies has become less distinct and users play important roles throughout the entire innovation process, potentially developing or extending technologies or applying them in entirely novel and unexpected ways. (Flowers and Henwood 2010:3)*

Flowers and Henwood describe how different approaches to innovation in literature perceive the role of the user. They explain that in innovation studies, the supply side is a central focus, maintaining users as 'customers' or 'contributors' and in some cases rejecting users in the innovation process. However, in science and technology theories the users are seen as being

integrated into the whole process as active shapers, and within innovation management users are seen to help develop growth for the business.

Active user innovation has been accelerated by developments in ICT. For example, software platforms are increasingly adapted or used to suit local contexts (Bilgram et al. 2010, Hyysalo and Stewart 2010, von Hippel 2009). Open source applications and software provide an opportunity for innovation to take place at all levels, by individuals, entrepreneurs, small to global businesses, informal and formal private sectors, and within NGOs and governments. Open innovation and crowd sourcing online platforms offer a virtual meeting space within which ideas can be collaboratively suggested and developed by an online community (Bingham 2011).

End-users are becoming more and more involved in innovation, although it is recognised that barriers exist to users fully cooperating in the innovation process led by organisations, and these need to be understood in more detail (Braun and Herstatt 2009). We should learn how these challenges to user innovation can be overcome to put users at the centre of any contextual analysis before external innovations are assumed to provide the best solutions locally. Moving on to another perspective of innovation from a local level, by users, consumers or organisational employees, the following section looks at 'reverse innovation' and 'markets at the bottom of the pyramid'.

Reverse innovation and markets at the bottom of the pyramid

Innovation, as we have discussed so far, may be inspired in many ways. Govindarajan and Trimble (Govindarajan and Trimble 2012) view 'bottom of the pyramid' (BOP) markets as one of the greatest potential sources of growth and innovation for businesses. The BOP market is defined as the majority of the world living in developing countries, estimated to be made up of over four billion potential consumers (Prahalad 2012), where these people are not traditionally targeted for consumer products by global businesses. The concept of 'reverse innovation' builds on this to highlight how innovation in these emerging markets happens and can provide opportunities for innovation that can subsequently be applied even in developed economies (Govindarajan and Trimble 2012).

Five gaps between the needs of 'emerging economies' and the 'rich world' are identified by Govindarajan and Trimble, demonstrating that innovations from the 'rich world' are often not appropriate for the 'emerging economies' and that 'clean-slate innovation' needs to take place (Govindarajan and Trimble 2012). The five gaps which are identified are:

1. There is an acceptance of lower performance in products or services in emerging economies due to price;
2. There is limited infrastructure in poor countries;
3. Sustainability is more of a concern in emerging economies and they are therefore more likely to adopt environmentally sustainable products or services;
4. The regulatory systems are less developed in poor countries, so innovations may move faster in these markets; and
5. Each country has its own preferences and tastes.

Reverse innovation in action
Partners in Health pioneered an anthropological approach to understanding HIV patients in Haiti and Peru. By using community health workers to make home visits and to diagnose barriers to treatment within people lives, a 'clean slate solution' was developed. This approach proved to have a great impact on the wellbeing and treatment decisions made for patients. As an international organisation, with movements of staff between countries of operation and the United States, the idea was 'leveraged to other parts of the world' and diffused for use in the US where it also had an improved impact for patients (Govindarajan and Trimble 2012).

Despite these gaps, an emphasis is put on the fact that innovations from developing countries can 'flow uphill' and benefit the global economy, as they are adapted and scaled through global channels. Reverse innovation presents an opportunity to recognise potential in places not seen before, and create opportunities for marginalised market players and new potential consumers. The concept supports the idea that markets play an integral role in innovation at all levels and may aid scalability. This recognition of the relevance to innovation of BOP markets takes us beyond the existing innovation literature's narrow focus on 'rich' global markets.

The Fortune at the Bottom of the Pyramid (Prahalad 2006) paints a picture of these vast, untapped markets in the developing world. He argues that firms and global businesses should recognise the potential that the billions of people living in these markets have for new profits and global business growth. In one of Prahalad's last papers he described the potential this market has for business innovation. 'We have traditionally assumed that the focus of innovation is products and technologies for the developed markets' (Prahalad 2012:11) but the BOP markets demand wider thinking for 'developing an appropriate ecosystem that enables a new business system to function' (Prahalad 2012:11). The variety and unique contexts that BOPs present mean that there is no 'monolith' solution and that each solution must be specific to an industry and to a 'particular target within the BOP' (Prahalad 2012). Prahalad emphasises the focus on understanding the consumer, starting with 'deep immersion' into the lives of consumers. He presents the four A's to use in BOP markets which focus more on meeting customer needs, compared to traditional developed market approaches. The four A's are: creating *Awareness* for consumers in the BOP markets; enabling *Access*; ensuring that products and services are *Affordable*; and finally, a focus on *Availability* considering local distribution constraints.

Consequently, the BOP may be seen as a source of innovation, and certainly goes towards an improved understanding and design approach, which is better targeted at the consumer. However there are heated debates around the ethics and power controls present in this approach (SBS 2012, Dolan 2012). Prahalad claims that '[m]any global firms are increasingly using the BOP markets as a laboratory for innovation not only for the BOP markets but also for the established country markets' (Prahalad 2012:11). Furthermore, if it is believed that 'for global firms, active participation in BOP markets is not an option...[and] these markets are critical for their sustained profitable growth' (Prahalad 2012:12), then there is a risk that the consumer focus is not further developed and inappropriate products and services are introduced into markets with the potential to cause harm. One brief example of a BOP product introduction is the phenomenon of 'sachet marketing' (Trend Watching n.d.). By reviewing the economic activity of potential customers, Hindustan Lever was one of the first

to introduce small and affordable sachets of shampoo to emerging markets, where people's economic status did not previously allow them to purchase the traditional month's supply of shampoo in large bottles (Prahalad 2006). This form of marketing has been labelled as 'sachet marketing' and is prolific across several other products (i.e. coffee and cosmetics) globally, reaching the BOP through global distribution channels and local and informal traders. As mentioned above however, one concern is the unintended knock-on impact of product introductions such as these. For 'sachet marketing', the consumer focus has been central to its success and the demand seems to be present for the products in the local markets; however, due to the lack of waste and disposal infrastructure in many BOP markets the packaging waste produced by the sachets has in some cases caused a problem (Unilever 2013). The waste issue has been seen as an opportunity by Unilever to develop the product to use a lower volume of plastic in the packaging, and also partner more widely to find solutions to the problem locally and in an economically viable way. In this case a local recycling unit has been established which reclaims the oil from the plastic, which is then purchased by Unilever (Unilever 2013). Although in this one example the waste issue has been tackled, due to the vast diffusion of 'sachet marketing', there are many places where waste remains a local and unsolved challenge.

As the 'sachet marketing' example shows, partnerships in local markets appear to be a vital part of entry to BOP markets and for reverse innovation, through local traders and organisations, and in helping solve unexpected challenges. Unilever, Nokia and Nestle are a few companies working hard with BOP markets (Prahalad 2012), and for firms like these, '[c]ollaboration with NGOs, the public sector and distribution and logistics in hostile conditions are the qualities that will serve them well in becoming globally competitive' (Prahalad 2012:9).

An example of these collaborative and unique partnerships is a programme run in partnership between the NGO Care International and private sector companies. In this partnership, locally named Jita (Jita 2013), products from multi-national companies (such as Danone and Unilever) are supplied through local entrepreneur 'hub managers' who distribute products to saleswomen, who then sell the products door-to-door. These saleswomen are also trained to carry out health campaigns in rural communities in addition to their daily livelihoods activities. This is just one example which demonstrates ways in which global companies are moving beyond the corporate social responsibility (CSR) agenda and becoming increasingly involved in BOP market approaches collaboratively and for the mutual benefit of local markets and livelihoods. However, there are questions about the "'ethical and environmental implications of pursuing development through the increased consumption of consumer goods by some of the world's poorest communities' (SBS 2012), as well as the view that BOP market engagement and even partnerships with global businesses may be 'cynical marketing ploys' (SBS 2012). Dolan discusses how poor people may be 'actively converted into entrepreneurial subjects' (Dolan 2012) as NGOs and global companies propose material and traditional industrial approaches to BOP markets, conceived as a 'service to global brands' (Dolan 2012).

The fundamental incentives for BOP and reverse innovation appear to be predominantly motivated by global growth and further business development for the developed world. Innovation under this umbrella does not fully represent a complete understanding of the intricacies involved in local and bottom-up innovation. However, this perspective on innovation does offer exposure to and a focus on local innovations, leveraging local capacities and systems. Taking a closer look at the local innovations in their own right, away from the

global perspective, the final innovation section below examines the concept of 'indigenous innovation'.

Indigenous innovation

The term 'indigenous innovation' has no established definition. It is used sporadically to describe some processes of grass roots innovation. In India, *Jugaad* is the Hindi word used for indigenous innovation, described as the mindset of the innovator and the most economical way to solve a problem (Singh et al. 2011). So far, for indigenous innovations there is no exploration of how innovation occurs in an individual's livelihood activities or what processes, decisions and enablers surround those who carry out *Jugaad*. In national innovation strategies in India, indigenous innovation is recognised as an important source of innovation for the national economy and local markets (Mehta and Mokashi-Punekar 2008). There are also some views that see indigenous innovation in a similar way to BOP markets, and as a source from which to extract innovations that can benefit larger companies, again benefiting national economies on a macro scale (Mehta and Mokashi-Punekar 2008).

Exposure to indigenous innovation ideas is difficult to find internationally. Some initiatives and stories demonstrate the importance of enhancing this type of innovation. *The Boy who Harnessed the Wind* (Kamkwamba 2010) tells the story of a young Malawian boy, William, who read a book (donated to his village library) about wind turbines. William adapted what he learnt in the book to build a turbine from local materials for his family home, using the electricity to power lights and charge phones. Recognised by a foreign visitor, William was assisted in building a charity around his innovation and providing wind turbines and other renewable energy solutions more widely in his community. There are also some online examples which aim to share stories of entrepreneurship, innovation and learning amongst young communities in developing nations: Afrigadget is an online blog that publishes examples of product innovations from individuals across Africa (Afrigadget 2013), and *Young World Inventors* hosts video logs of business development (Young World Inventors 2013). Examples like these demonstrate the capabilities and innovations people produce for themselves, whilst sharing the knowledge and learning from the processes individuals have gone through to achieve change. Practical Action is an NGO which was formed out of the concepts of appropriate and intermediary technologies serving poor economies and is another group that successfully acknowledges local innovations. Practical Action focuses its work on exposing, developing and scaling technical innovations and knowledge on open online platforms (Practical Action 2013b). Many of these low-tech solutions have come from innovations by people living in communities and use locally available resources. Learning from these community and user perspectives in innovation highlights the importance of accepting existing practices and cultures, working with them, respecting them, maintaining two-way communication and, only if required, facilitating the creativity and problem solving that already exists.

Reflecting on innovation

This range of innovation examples clearly demonstrates that 'users' are an important part of any innovation. However, we can see that there is a gap in understanding the drivers for innovation amongst communities, users and customers. User innovation is observed and used by large businesses, but the indigenous innovation examples in their own right are few and need to be explored and understood in more detail. Some key points to extract from the innovation literature discussed are:

- More needs to be done to understand how 'user' and local innovation occurs;
- User focus is central to creating social change through innovation;
- Partnerships are important when working in local markets;
- There is a need for flexibility and a variety of skills over time for innovations to scale;
- Networks and 'linkages' are important for diversifying skills required in an innovation process;
- Facilitating and supporting local solutions can be shared openly to enable scaling.

The next section looks in more detail at how these 'user' perspectives have been captured in design theories and practice, to build even further on defining 'bottom-up' innovation.

5 Learning from design theory

As indicated previously in this paper, for humanitarian and development work, the targeted community groups are rarely involved in the design of the programmes (Proudlock and Ramalingam 2008). These shortfalls in integrating communities into the programme and product design may result in a lack of sensitivity for local practices and existing structures. As mentioned earlier, there is no shortage of examples of projects that have 'caused harm', not met the 'real need', been expensive and short lived; as a result of this, there is a lack of attention given to effectively involving 'users' in the design. Many of these examples are demonstrated through the Listening Project (M.B. Anderson et al. 2012). So what can design theories teach us about how projects may be thought out more thoroughly and designed to better suit existing practices and systems? Donaldson (2002) argues that for improved development initiatives, design practice can help achieve a user-centric approach from design to deployment, and also improve the on-going monitoring of programmes. In relation to product design there is also a recognised need for 'contextual information accounting' for humanitarianism (Campbell et al. 2005). Campbell et al. (2005) state that those 'equipped with methods and tools for contextual design will show a measurable improvement in contextual understanding of design problems outside their experience and expertise'. This section therefore explores what design theories may contribute to finding a more bottom-up approach to the innovation process in humanitarianism.

Practising a more integrated approach which includes 'beneficiaries' in humanitarian design can be difficult, but culture, context and social norms are an important element of defining problems, and therefore also in elaborating the design of any solution. This more holistic approach has been recognised by some practitioners with respect to product design in the developing world since the early 1970s. One example is found in the work of Schumacher (1973), where 'intermediate technologies' were defined as appropriately small-scale, low-tech solutions that were designed specifically to meet the cultural, systematic and material resource constraints of communities living in poverty. Schumacher was the founder of the NGO previously mentioned, Practical Action (formerly known as the Intermediate Technology Development Group), which started in 1966 and carries many of his values and practices in its current work. Practical Action, along with other international organisations such as International Development Enterprises (IDE), focuses on appropriate technical solutions to poverty and development. These organisations also focus on how basic and appropriate technologies can be taken into local markets, thereby creating lasting livelihood solutions for both users and market actors (Polak 2008, iDE 2013, Practical Action 2013c). Beyond these

examples (which are currently mainly focused on rural agricultural practice), approaches to improve technology or processes have not been extensively developed to capture design principles for wider humanitarian programmes.

It is here that we turn to design practices that are used outside the typical humanitarian and international development systems. 'Design for X', 'customer value chain analysis', 'participatory design', 'empathic design' and 'design thinking' and so on, are just some of the design approaches which do focus on incorporating end-user needs more fully into a design process. Some approaches go further in focusing on human and social elements for design practice and tackling some of these challenges faced in the humanitarian world, as described above. These design theories over recent years have evolved from a focus on product design at the start of a product innovation process to, more recently, a systems approach, where design for processes and services is considered at each stage of the innovation process. New approaches in design therefore obtain a deeper inclusion of the 'user' and relevant social elements in order to understand how products and processes fit into society. An overview of some of these approaches is given below:

- **'Design for X'** is an approach which aims to focus the design process on a specific function, 'X'. The objective is that by focusing on a specific function during the process of design, areas which are usually not acknowledged in the design process may be more clearly recognised. An example of this is 'design for manufacturing', focusing on design that enables efficient manufacturing and thereby minimising material waste, time and energy consumption, whilst still maintaining high product quality. Design for X may also cover many techniques that need to be considered concurrently (Huang 1996) in order to achieve its focus and design improvements. The purpose of this approach is to design products and services with wider context and considerations in mind and therefore result in a more integrated and effective solution. Design for X methodologies have looked at environmental constraints in order to try and address energy and climate issues, but have not explicitly covered many social elements. However, this broader approach to design does offer the opportunity to take culture and context-specific elements into consideration for the design of a product or process.

- **'Customer value chain analysis'** (Donaldson et al. 2006) assesses the whole supply chain of a product or service. The supply chain is analysed at each step from the creation of the raw material, through the manufacturing process and distribution to the end user and finally to disposal. By visually mapping the chain, the key stakeholders (such as manufacturers, suppliers, wholesalers and end-users) are each identified as 'customers' in the 'customer chain' map. Each 'customer' plays an important role in delivering the product or service, and therefore a better understanding of the relationships between them and the product, improving the design of the systems and items. An example of customer value chain analysis being used for an NGO programme is given below:

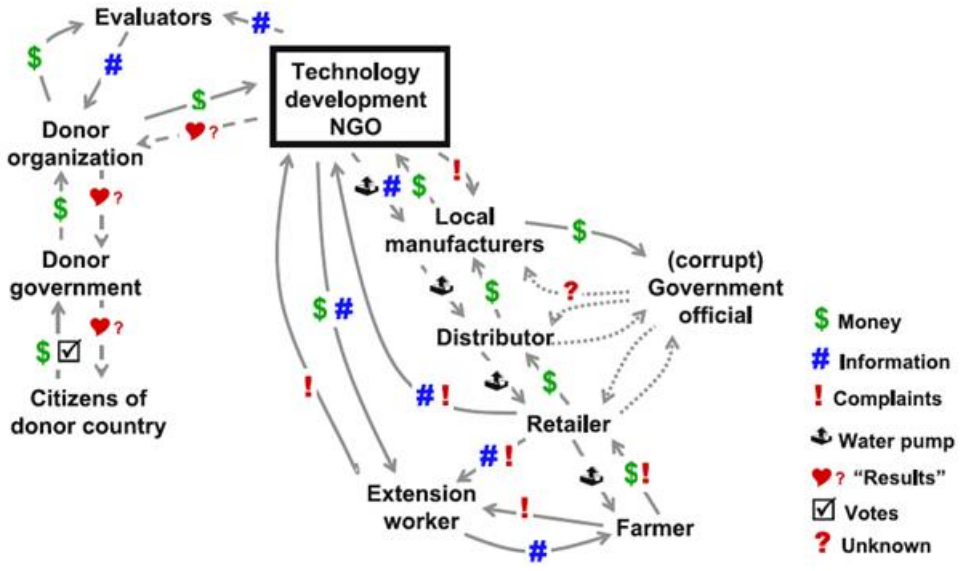

Figure 6: Customer value chain for micro-irrigation pump (Donaldson et al. 2006)

The example above shows the different relationships between the different 'customers' in the value chain of a micro-irrigation pump project by a local Kenyan NGO (Donaldson et al. 2006). The paper indicates that in this NGO example there are more customers than may be present in more commercial examples, and that there are two customer sets (one related to the donor and one to the end user). This method helped to identify the financial flows and allowed the NGO to set priority areas for sustainably exiting the programme. As a result, the water pump as a product has been successful but funding problems are still present for the programme to continue running.

- **'Participatory design'** may be defined as 'directly involving people in the co-design of the artefacts, processes and environments that shape their lives' (Simonsen and Robertson 2013 :2). For participatory design there must be 'mutual' learning for both the user and the designer. Users may interact with the designs through prototype models and mock-ups. Participatory design is most commonly used in the design of products and technologies, and has been used widely in the context of software development, which commonly emphasises the importance of customer inclusion in each stage of the design process (Schuler and Namioka 1993).

- **'Empathic design'** is a concept that has come about through the assumption that the user may not have the answers to create new ideas or be part of the innovation process when asked. Therefore this design method takes an empathic approach to try and understand the user through observation and testing of new products and services as part of the everyday lives of users (Leonard and Rayport 1997).

- **'Design thinking'** focuses on the process of design, bringing in multidisciplinary skills to understand the systems that users are a part of, designing not only services and products but the process in which they can be used and implemented (Brown 2009). Design thinking is a concept developed by Tim Brown, founder and CEO of IDEO (IDEO 2013) , and uses systems and flexible approaches to achieve 'human-centred design', believing that social elements and human focused approaches must play an integral role in design methods. The diagram below shows the stages of human-centred design: hear, create, deliver. Each stage is 'co-designed' with local people and users.

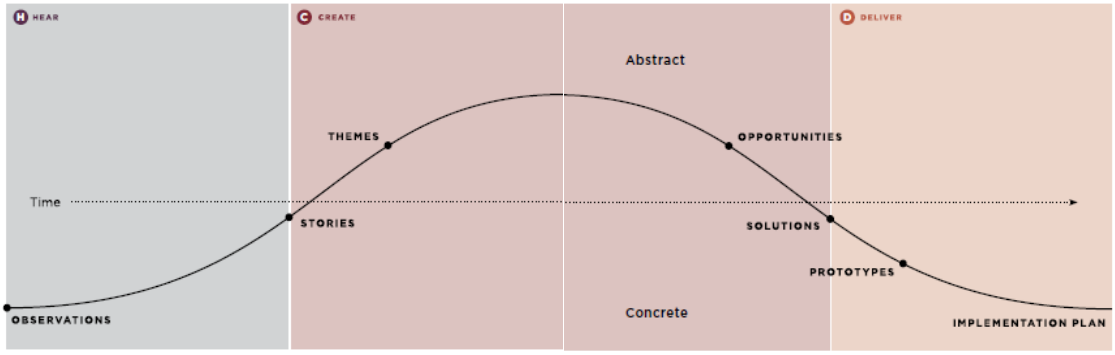

Figure 7: Human-centred design process (IDEO 2009)

Moving away from design focused on global business and technology development, the design thinking approach appears to offer some more nuanced elements for social change. It pulls in the vital human elements of design for not only products, but also systems and organisational models. Brown says that social change can be achieved through this type of design thinking (Brown 2009, Brown and Wyatt 2010). Design thinking is:

> *…a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity. (Brown 2008)*

More recently, design thinking has been seen to overlap and compliment theories of social innovation (Brown 2009, Brown and Wyatt 2010). '[b]y working closely with the clients and consumers, design thinking allows high-impact solutions to bubble up from below rather than being imposed from the top' (Brown and Wyatt 2010). Brown discusses this process of design as a source for inspiring innovation. In fact, just as with innovation theories '[o]ne of the biggest impediments to adopting design thinking is simply fear of failure' (Brown and Wyatt 2010). A suggested remedy for this by using design thinking is described here:

> *The notion that there is nothing wrong with experimentation or failure, as long as they happen early and act as a source of learning, can be difficult to accept. But a vibrant design thinking culture will encourage prototyping—quick, cheap, and dirty—as part of the creative process and not just as a way of validating finished ideas. (Brown and Wyatt 2010)*

Browns approach to 'human-centred design' has driven the strategy of IDEO (of which Brown is currently CEO). His theory has evolved and been well defined, targeting social change through new design thinking (Brown 2009, Brown and Wyatt 2010). Design thinking is a 'radical form' of collaboration that blurs the lines between creators and consumers: 'us *with*

them' (Brown 2009). Social importance requires going beyond 'doing' design to collaborative 'thinking' involving specialist skills beyond solely those of traditional designers, seeking 'T-shaped' people who think about others:

> *The design thinking process is best thought of as a system of overlapping spaces rather than a sequence of orderly steps. There are three spaces to keep in mind: inspiration, ideation, and implementation. (Brown and Wyatt 2010)*

Intended to create a 'blend of bottom-up experimentation and guidance from above' where 'implementation is everything' and 'an experience must be as finely crafted and precision-engineered as any other product' (Brown 2009).

This approach has been used in collaboration with NGOs, social enterprises and foundations through IDEO.org since it was founded in 2011 (IDEO 2011). A project has been carried out with Water and Sanitation for the Urban Poor (WSUP) and Unilever, looking systematically at sanitation in Ghana. The project has explored latrine designs and market networks in order to design a system that can be used to extract and dispose of waste. The design involves local entrepreneurs in solutions in order for the system to be sustainable in the long term (WSUP et al. 2011a, WSUP et al. 2011b).

There seems to be little evidence that more user-centric approaches to design can have a negative impact. Some online opinions, however, have begun to challenge design thinking as a fashion buzzword and a distraction from management in large companies (Merholz 2009, Raford 2010). Additionally, Skibsted and Hansen (2011) argue that user-centric design techniques may lead to 'sameness' and stifle creativity in designs. They believe that consumers are led by brands, not the other way round, and that brand-led markets work more effectively. Even if this is the case, there is also evidence that user design and innovation is occurring by itself beyond the control of large businesses and organisations. This is particularly true in the ICT industry, as mentioned in the 'user innovation' section previously. Fast-moving ICT products and open source software are tools with which users can build and create new, and often marketable, solutions to a variety of challenges. As a result, there is a recognised gap in our understanding of what the drivers and mechanisms are by which users define designs and innovations for themselves (Schuler and Namioka 1993).

Reflecting on design

Overall, design theories are increasingly being integrated within innovation thinking, seeing design practice as a multi-disciplinary and user-focused approach that can enable the innovation process to be understood beyond just the introduction of a product. Having explored just a few areas of design theory, all of which build on the idea of taking a holistic approach to problem solving, some of the following key lessons may be taken forward for our attempts to develop a bottom-up perspective on humanitarian innovation:

- Improved design methods are required in humanitarianism;
- Taking a user / human-centred approach to designing interventions will yield more appropriate and sustainable solutions;
- Appropriate solutions can be defined or informed by users, and should be supplied by the local market;
- There are several methods and practices which could be used to help consider 'users' and 'customers' in the solution and its value chain;

- Multi-disciplined teams and a systems approach can help in the design of more 'human-centred' solutions;
- A deeper understanding of how users define solutions and innovations is required.

From these lessons there appears to be value in further understanding and exploring the use of some of the design techniques and practices for humanitarianism. However, there remains a need for a deeper understanding of how these ideas can be applied to the humanitarian context. Indeed, it is important to be aware that these perspectives alone do not entirely address concerns that problem definition and the selection of solutions may remain partly 'top-down', insofar as power imbalances between designers and users may still exist.

Despite this caution that design theories be used appropriately, there are important ways in which design theories can benefit humanitarian innovation. In particular, users do at least play a vital role in developing new ideas and multi-disciplinarily skills and user involvement is key to supporting new and appropriate solutions. The application of design thinking to development and humanitarian problems is relatively new; however, its approach encourages practice which is open to adaption and community participation. In order to build on this, the next section turns to literature on participatory approaches to development.

6 Learning from participation

Well-developed theories of participation in development are aimed at, and have been developed by, aid agencies and practitioners to ensure that interventions are as inclusive as possible of 'community' and 'local' ideas and contributions. Participation as a concept for development practice is believed to have been embedded into principles and understanding of development over the last few decades (Hickey and Mohan 2004), and with regard to humanitarian standards and guiding principles this also appears to be the case. One example of this is the *Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in Disaster Relief*, which contains the notion of participation as one of its core and underlying principles:

> *Disaster response assistance should never be imposed upon the beneficiaries. Effective relief and lasting rehabilitation can best be achieved where the intended beneficiaries are involved in the design, management and implementation of the assistance programme. We will strive to achieve full community participation in our relief and rehabilitation programmes. (IFRC and ICRC 1994)*

Another example of participation being integral in principles and standards is demonstrated in a section on Core Standards presented by the Sphere Project, which claims that it is dedicated to guiding 'people-centred humanitarian response[s]' (Sphere Project 2011). Additionally, tThe *Humanitarian Charter and Minimum Standards in Humanitarian Response* states that:

> *…the affected population is at the centre of humanitarian action, and recognise that their active participation is essential to providing assistance in ways that best meet their needs, including those of vulnerable and socially excluded people. (Sphere Project 2011)*

Participation and inclusion of communities in humanitarian action, however, is thought to rarely be practised due 'restrictions on time, funding and expertise' (Byrne and URD 2003). Conversely, it is stated that 'there are very few situations where time pressure truly prevents a participatory approach from being adopted.' (ALNAP and URD n.d). Participatory approaches are in some cases considered to offer better links between humanitarian and development practice, as noted in Ntata's Sudan review, in which he compares both development and relief as being 'clashes' between 'insiders' and 'outsiders', and therefore 'top-down' in development corresponds to 'supply-driven' in relief whereas 'bottom-up' in the former corresponds to 'demand-driven' in the latter" (Ntata 1999). The critiques are embedded into practice, and:

> *…the principle of participation has too often been inflexibly 'proceduralized' within the approaches of aid agencies. After 'participating' in many assessments, meetings, and activities planned by aid providers, recipients often say they are disillusioned. (M.B.Anderson et al. 2012:125-6)*

The rest of this section will examine participation in practice followed by the main critiques of these approaches, and how we may move forward from the criticisms to learn from participatory approaches in informing the bottom-up approach to humanitarian innovation.

Participation in practice

Participatory approaches to development and humanitarian work have been adapted for practice in the form of a variety of participatory methods. Participatory methods as a way to implement participatory development thinking are an innovation in their own right. Evolving from practices in the 1970's, the adaptation of participatory methods, tools and guidelines has spread around the world over the last few decades. These methodologies '[a]ll frame and facilitate sequences of activities which empower participants to undertake their own appraisal or research and analysis, come to their own conclusions and take action'(Chambers 2007). A significant proportion of such participatory methods have been developed in the global South and by national NGOs.

The vast range of participatory methods cover many elements of development programming and research approaches, often using visualisation techniques, facilitating knowledge exchange and discussions amongst participants. Chambers demonstrates the evolution of participatory methods from 'participatory rural appraisal' (PRA) to 'participatory learning and action' (PLA), and then to a pluralism whereby adaptive learning must take place in order for participatory approaches to continue to be contextually appropriate (Chambers 2007). The adaptation of participatory methods has been considered to be undergoing the innovation process itself (Brock and Pettit 2007), where ideas and tools are adapted quickly whilst being taken to scale. Chambers supports the 'failing forwards and learning' mantra, which stemmed from participation discussions in the early 1990s. For PRA, it is vital to 'start, stumble, self-correct [and] share' (Chambers 2012), again partly imitating the stages of the innovation process.

A brief look at some of the participatory methods below begins to draw out examples of what participation means in practice.

- **Appreciative inquiry** has been adapted for development practice from management theory predominantly used in the private sector (Cooperrider and Whitney 2001) Whitney, 2010, (Watkins 2011). This method is intended to bring people together,

facilitating discussion for change and action. It seeks to draw out people's strengths and aspirations, taking a positive approach instead of focusing on the negative aspects and maintaining a problem focus that is often used in development projects, which typically demand outcomes and raise expectations (IISD 2000). Appreciative inquiry puts an emphasis on dreams and a way forward to help people make positive and progressive decisions.

- **Participatory market system development (PMSD)** is a method whereby a variety of market actors are brought together in a workshop. The workshop leads participants through a visual market mapping exercise and facilitates discussions which help the group to identify blockages in their local market channels. Solutions to the blockages are discussed and found as a group for collective action (Practical Action 2013a).

- **Communityled total sanitation (CLTS)** was a method developed in Bangladesh in 2000, and is now widely used amongst NGOs. CLTS facilitates a discussion amongst a community in order to recognise sanitation issues and stimulate community-led action which is aimed at eradicating open defecation and therefore leading to improved local sanitation conditions (IDS 2013). Debates on how CLTS has been implemented start to draw on and address some of the critiques discussed later in this section.

Another project focusing on the participation of disabled people shows that the participants were the 'leaders in the problem-solving process' (Werner 1998). This was achieved by helping the group to design the solutions that they would use. Methods such as these, as well as various methods developed from the 'creativity and inventiveness of local people' (Chambers 2007) have been diffused and adapted widely in development practice.

Participation has also been explored with regards to measuring the impact of humanitarian projects once they have been designed and implemented. However, one of the key challenges for participatory evaluations and impact measurement is the lack of participation by communities at the start of the project (Proudlock and Ramalingam 2008). This shows that if participation is to be used, then the entire process from problem definition to implementation and scale should be considered. Another example of application in an emergency context comes from Ntata's (1999) report from the 1998 famine in South Sudan, which explored the ways in which several international agencies involved the population in the response and their readily prescribed activities. The overview is not conclusive on the success of the participatory approaches taken, but it does acknowledge that these ways of working are subtly challenging the mindset of aid agencies.

Although participation as a concept has been seen to widely influence development thinking, debates have been on-going over the last few decades and highlight a diverse array of competing perspectives and critiques of participatory methods (Chambers 1997, Cleaver 1999, Cornwall 2000, Cooke and Kothari 2001, Hickey and Mohan 2004, Cornwall and Brock 2005, Chambers 2012). In offering a critical history of the concept, Cornwall (2000) suggests that, on the one hand, a 'compelling storyline emerges' in which there is near universal uptake of the language of participation. On the other hand, she suggests that there is frequently a disconnect between theory and practice in how these methods have been applied. Where participation is an agreed and standard principle, it may be difficult to implement in practice.

Learning from these critiques will therefore help to shape and understand the meaning of a more participatory and bottom-up approach to humanitarian innovation.

The critiques of participation

The collection of different perspectives in *Participation: The New Tyranny?* (Cooke and Kothari 2001) demonstrate the variety of concerns with participatory approaches, and aim to provide a critique beyond simplistic concerns with practice methodologies. The collection captures examples of 'participatory processes undertaken ritualistically, which had turned out to be manipulative, or which had in fact harmed those who were supposed to be empowered' (Cooke and Kothari 2001). Below I have grouped some of the critiques from this collection and the wider literature to try and capture the key issues and evolution of thinking around participatory development.

Definition

Participation has been accused of lacking definition, with critics saying that 'although we have a word in common, we give it very different meanings' (Brock and Pettit 2007). The broad use of the term 'participation' itself is thought to have led to poor interpretation and use of the methods labelled with it, leaving the approaches vulnerable to over-simplification and misuse (Francis 2001). Consequently, these issues have given rise to critiques without a common definition in themselves and greater clarity on its definition is still called for (Hickey and Mohan 2004).

This area of critique describes participation as a label for many methods that may not carry out best practice or inclusivity on the ground. The label has in some cases been misused or abused, being treated as a 'box-ticking' exercise (Chambers 2007). Out of the participation discussions around the use of terms there have also been concerns in the use of the words 'community' and 'local'. The words 'community' and 'local' are sometimes thought to encourage people to be seen and treated as a standard unit by outsiders, where one solution fits all (Guijt and Shah 1998, Cleaver 1999), even when trying to practice participatory methods.

Extraction of knowledge vs. facilitation of knowledge

A debate on what participatory methods are used for has also developed, questioning the end goal and intentions of some participatory approaches. Participatory approaches in some cases are thought to be used to extract information and knowledge from communities which may not directly benefit them (Mosse 2001), where the information is solely for the benefit of project planning and upwards accountability to donors. The intention of some participatory approaches, however, is to facilitate a knowledge exchange amongst people in order for them to take their own action (IDS 2013, Practical Action 2013a), and it is considered by some that both of these requirements can happen simultaneously (Brock and Pettit 2007, Chambers 2007). The participatory methods which are thought to 'extract information and not empower' are tied to the brand of participation but not practiced (Chambers 2007), and have been seen as 'proceduralized' (M.B.Anderson et al. 2012) ritualistic and 'manipulative' (Cooke and Kothari 2001). Cornwall (2002) highlights how the World Bank's 'enthusiasm for empowerment illustrates how a term once associated with a process through which people discovered their own potentialities has become an instrument for managed intervention'. Cornwall (2002) also states that participatory approaches are being carried out in parallel to existing local practices, rather than making programmes more inclusive and participatory in their own right.

Complexity of power and politics

The remaining core critique for participatory approaches revolves around the influence exercised by the outsider. In particular, there are concerns that participatory approaches can reify and entrench existing power relations within communities, and that there are related challenges of deciding who will participate and represent communities (Cornwall 2002, Hailey 2001).

There is a fear that participatory methods may enhance existing power structures within communities instead of empowering those who are the most marginalised. One view is that wide participation itself can mask these important power differences amongst communities (Kothari 2001). On another scale there is also concern that micro-level intervention using participatory approaches can obscure macro-level inequalities and injustice (Cooke and Kothari 2001). The power challenges also play out in critiques of where participation is located (Mohan 2001), and what constitutes appropriate spaces of participation (Cornwall 2002). In some cases participatory approaches have been seen as a way to get around local opposition to externally defined projects (Hildyard et al. 2001).

There is also critique about the selection methods used and how participants make decisions on whether to participate or not (Cleaver 2001). 'The water carrier, decision maker, manager and beneficiary are not always then manifest into one individual' (Cleaver 1999), and Cleaver acknowledges the complex web of reciprocal exchange upon which people and solutions depend. It is thought that the inclusion of the wider dynamics of economic and social change is needed to develop a more complex modelling of livelihood concerns over life courses (Cleaver 1999), beyond what is currently achieved using participatory approaches. This complexity is also interpreted through in-depth analysis of the psychology that plays out in participatory approaches, where even the presence or perceived presence of outsiders can have a distorting impact on how people behave and make decisions (Cooke 2001). Finally, there is a difficulty in integrating project concerns with participatory methods, especially when the project is seen as a set of activities that is time-bound. There is therefore a need to better understand the non-project nature of people's lives (Cleaver 1999), which inherently calls for a more nuanced understanding of local power and politics.

Moving forward

The collection of critiques above provides a relatively bleak picture for participatory development; however, more recent analysis and experiences in participation have tried to rebut these by claiming that some of these issues have more recently been tackled by practitioners. In particular, Hickey and Mohan (2004) have suggested that 'citizenship' participation principles can be applied to create a more holistic understanding of participation within the procedural and substantive aspects of development. Cornwall (2000) notes that one of the main forms of evolution in participatory methods has been to address concerns with power asymmetries by moving from participation within isolated micro-level solutions towards a more holistic understanding of participation as rooted within all aspects of community development.

Additionally, Chambers describes a new form of participation emerging within an adaptive pluralism for development (Chambers 2010), where an 'eclectic pluralism' describes a diverse set of skills, and where 'capacity to adapt and innovate' are part of a proposed new agenda. Central to this is removal of the branding of participation and thereby avoiding reliance on fixed, standardised methods irrespective of context. 'The practical challenge is often not to

over-prescribe, with the danger of entering an inhibiting top-down zone of too many rules' (Chambers 2007:24). Chambers argues that adaptive and loose training helps facilitators to adjust and adapt to the particularities of the local context.

Chambers has also used the concept of complexity to contribute to the advancement of participatory approaches (Chambers 2010). Complexity theories can help in creating a systems and network way of thinking that considers the social, political, economic and physical intricacies. The issue of complexity within development and humanitarian approaches is another emerging discussion amongst practitioners (Ramalingam et al. 2009a, Green 2012). Complexity thinking may help practitioners to move beyond an isolated view of particular projects and programmes to see social systems as inherently nested within broader social, economic and political structures. Again, this points towards a far more holistic view of participation.

Reflecting on participation

So what can we take from participatory discourses and debates? They have presented a complex range of social concerns and challenges that play out in several aspects of humanitarian, development and social programmes. However, a self-awareness of these components is vital to overcome some of the challenges, or as Chambers puts it, a 'self-critical epistemological awareness' (Chambers 1997). From the review of participatory approaches and critiques some lessons may be drawn, as listed below:

- Participatory methods are aimed at empowering affected populations to make their own decisions when defining problems and finding appropriate solutions to local challenges;
- The widespread use of 'participatory methods' has meant that their quality and impact has not been consistent;
- Power relations and politics need to be carefully understood so that they do not negatively influence the way that participation is used and the impact it has;
- Do not over-prescribe and create an inhibiting top-down zone with too many rules;
- When present, facilitators must adapt to the local context;
- Systems and networks should be fully considered as part of the wider context of development and humanitarian practice.

Participation exists within community groups without external intervention, and like grassroots innovation, little has been done to understand how this works. The innovation of individuals and 'communities' themselves has been blurred by institutional systems, project-based approaches and pre-prescribed problem definitions and solutions brought in by external actors. A systems approach and consideration of social complexities may help to overcome some of these challenges.

7 Bottom-up humanitarian innovation

The journey above has led us through an overview of how developing markets, communities and users are perceived within innovation. User-led innovations, design theories, and participation based on adaptive pluralism are all approaches that can take us closer to a

bottom-up approach in humanitarian innovation. We can learn from all of these areas of literature and practice, drawing insights from their strengths and weaknesses. These key points are brought together in the summaries below.

- **Innovation as it currently occurs amongst communities is under-acknowledged**
  We have seen that indigenous and local innovation does exist, but that it is rarely researched, understood or recognised. In the private sector, innovation by 'users' and 'customers' is an increasingly occurring practice. In some cases, this 'user' innovation is used to improve the design and delivery of products and services. However, there is a lack of in-depth understanding of how this occurs and can lead to improved innovation practice. There is an even greater lack of documented stories of bottom-up innovation within the humanitarian context, whether during an emergency, a protracted crisis or the recovery phase. Furthermore, there is a limited amount of analysis of how this type of innovation can be enabled or facilitated. As Kibreab (2004) identifies, specifically in a refugee context, there is an under-researched area of understanding refugees' own social networks and their own responses to the 'losses and challenges' following flight. Yet, by definition, refugees have to adapt – and hence innovate – because of the transformation in their access to resources.

- **Local innovation, capacities, systems and markets are key to finding sustainable humanitarian solutions**
  As noted above, there is evidently a gap in effectively understanding the local capacities and systems in existing humanitarian practice. As identified in the social innovation literature, user focus is key to creating social change through innovation. By understanding these existing systems and markets better, humanitarian approaches are forced to take stock and consider local structures and existing innovations, before implementing inappropriate external interventions. Observing these systems and markets over time also challenges the project-based approach, which is often short-lived, time bound and struggles to find time to more holistically understand local practices. Local markets also have an additional and important role to offer in allowing innovations to be taken to scale: markets can create wide opportunities and demand for innovations that have a positive impact on people's livelihood activities. Of course affected populations solve problems in challenging environments in their daily lives, yet so little is understood about how this is done and what opportunities and challenges they face.

- **Facilitation, networks and partnerships may be required where barriers to innovation prevent ideas being taken to implementation or scaled for wider use**
  Local innovation may in some cases need to be supported in order to overcome challenges and barriers at different stages of the innovation process. Affected communities may have a demand for support in areas such as risk mitigation, communications, knowledge exchange or the creation of networks, for example. Careful consideration by external actors is required if facilitation or support is to be provided, and it must be appropriate to local cultures and systems that are already in place. Facilitation of this type can learn a great deal from participation methods and critiques. For example, external actors can ensure the power balance is considered and methods do not 'over-prescribe' to create a controlling environment, and they can

ensure that facilitators adapt to the local context. There needs to be more focus in practice on actually living up to the underlying principles of bottom-up innovation: allowing people to make decisions and choices, and to be empowered to maintain their own livelihoods. People will also make the decision to adopt, use, adapt and inform innovations which are introduced by external actors, therefore keeping 'users' central throughout any process of innovation is vital. This may be achieved through networks and a diverse set of skills and partners.

Bringing the two worlds of humanitarian innovation together

As defined at the start of this paper, there is a risk that the emerging discussion of humanitarian innovation will become heavily focused on innovation management within organisations and may not take account of the local capacities and systems already in place or the innovations occurring amongst affected populations. Indeed a significant proportion of humanitarian innovation work implicitly follows this 'top-down' approach. The alternative world of humanitarian innovation is one based upon 'bottom-up', locally appropriate solutions. However, it is clear that to make this ideal a reality, a deeper understanding of the bottom-up approach to innovation is required, in order to fulfil its potential of fostering the skills and capacities of affected populations, and thereby also informing external interventions by humanitarian actors, whether NGOs, governments, international organisations, or the private sector.

Chambers (2007) has worked on the dichotomies of two similar worlds for development practice, starting with his concepts of 'things' versus 'people' where a traditional 'things' approach has been 'neo-newtonian', and focused on the physical, top-down world, neglecting the social elements important for development, and where the 'people' approach is bottom-up and people-centric. More recently, however, he has evolved this thinking to attempt not to polarise the approaches, and proposes a 'paradigm of adaptive pluralism'(Chambers 2010) whereby 'mindsets…orientations…[and]…predispositions' in development take a new form that works within the unpredictability and non-linear complexities of the varying contexts. In this new approach the roles of the external actors are based on facilitation and empowerment, where relationships are reciprocal, personal and democratic. There is dynamism and creativity, and participatory methodologies have an important role to play. It is in this paradigm that the emerging innovation practice needs also to sit where dialogue and understanding are mutual between the two worlds and the local capacities and systems are central to all humanitarian practice, whether it is initiated locally or by an external party.

This new and bottom-up perspective on humanitarian innovation can help to address the gap in how to practically achieve 'user involvement' in the assessment, design, implementation, evaluation, and sustainability of humanitarian interventions. A better focus on the 'user' and 'citizen' is required since there is a strong correlation of dissatisfaction and marginalisation felt by recipients of aid due to this gap in practice (M.B.Anderson et al. 2012). Innovation from the 'bottom-up' offers a non-project lens that starts with the communities' own initiatives and context. Regardless of where the idea originated, facilitation can also challenge the assumptions typically made in 'top-down' interventions to support the innovation process with a focus on local capacities and systems. Design and innovation thinking forces those involved in a process of innovation to think more systematically and holistically, ensuring that social and cultural elements are at the forefront of new ideas and how they evolve to implementation and then to scale. Designing and planning must be continued throughout the innovation process in a flexible and adaptive way. A diverse set of skills is vital in any

innovation of this type and these may be achieved through facilitation that includes a unique group of individuals, partnerships, and networks.

Taking these key lessons from the three areas of literature and reflecting on how the two worlds of humanitarian innovation can be brought closer together, the final section below explains a framework that will help to build an improved source of research and knowledge on this new form of humanitarian innovation from the bottom up.

8 A humanitarian innovation research framework

'Innovation' is not and should not be used as a label for objects and ideas. Instead, innovation is a process through which activities may be seen and guided, offering a more systematic and holistic approach to new initiatives than the current 'project' focus and humanitarian systems offer. Within this process, local innovation and a user focus at each stage is key. The basic stages of innovation are illustrated again below: defining the problem or identifying the opportunity; finding a potential solution; piloting and refining the solution; and finally, appropriately scaling the solution. Each stage may learn from other stages or trigger another cycle of innovation itself.

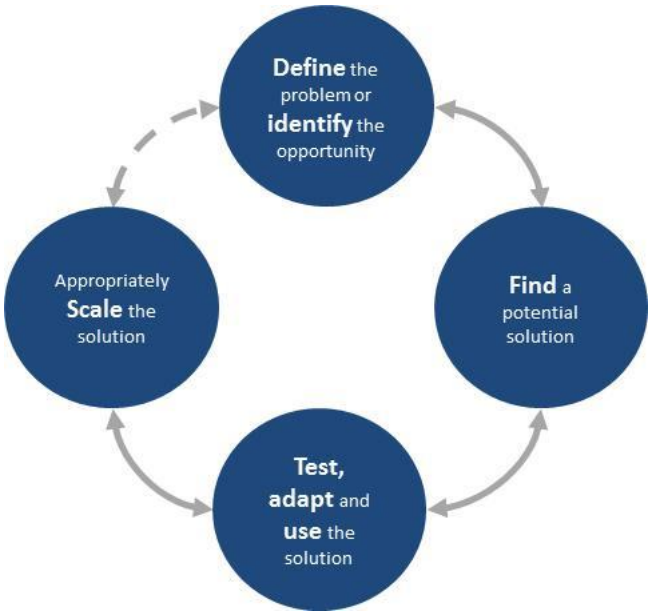

Figure 8: The innovation process used by the Humanitarian Innovation Project

The process of innovation provides a useful lens through which to coherently follow ideas from inception to the development of sustainable and appropriate solutions. It helps to understand the decision-making process that goes alongside these stages, as well as the barriers and opportunities that exist at each of these stages for a given individual, community, or organisation. Humanitarian innovation with a 'user' focus at each stage means that:

- Problems or opportunities are defined by communities themselves in accordance with demand and with what they perceive to be sustainable in the context of pre-existing local systems;

- Potential solutions are appropriate to the local context and can be sourced and maintained in the long term;
- Piloting, testing and refining the solutions is guided by user decisions and adaptions that ensure that the solution fits within the local systems;
- The adapted solution is appropriately supported to scale through local markets and systems, driven by demand and local capacity.

This lens hopes to enable a broader thinking beyond the status quo, recognising local innovative capacity and systems, thereby going beyond traditional 'top-down' solutions defined by the humanitarian organisations.
Taking this lens of innovation and the key lessons learned from this review, it is clear that making communities the core of all humanitarian innovation, generating mutual understanding and collaboration even when working in the 'procedural' world of humanitarian innovation, is vital. There are two ways in which this analysis and understanding of bottom-up innovation may be framed and researched further:

1. Using the innovation process as a lens, obtain a deeper understanding of innovations that occur within communities.

    - Understand how problems are solved and implemented and solutions are sustained and scaled in the every-day lives of the 'beneficiary communities';
    - Identify the barriers and opportunities that exist at each stage of the local innovation process;
    - Recognise how local markets and the private sector influence and effect local innovation.

2. Explore what types of models may help to facilitate humanitarian innovation. Keeping local capacities and systems central, facilitation of bottom-up innovation is believed to both foster local innovation and challenge the assumptions made in more traditional 'top-down' interventions at each stage of the innovation process.

    - Undertake case studies to understand how innovation has been facilitated in different contexts globally. (For example, through UNICEF innovation labs (UNICEF 2013))
    - Consider the literature on 'spaces' to understand the challenges and experiences in creating neutral innovation spaces that are truly inclusive and contribute to fostering local innovation (For example, see Cornwall 2002).

In order to elaborate on this framework further, two examples from the Humanitarian Innovation Project (HIP)'s work in Uganda so far help to demonstrate the types of activities that fall under the two parts of this research framework.

Example 1: How innovation occurs in the everyday lives of refugees
A young Congolese man, interviewed in Nakivale Settlement in the South West of Uganda, presented two innovation processes that he had initiated and implemented as part of his livelihood and social activities. These are shown in the table below against the four broad stages of innovation.

Stage of innovation	Video editing business	Youth radio programme
Defining the problem	Upon arrival to Nakivale the young man had no source of income.	An old megaphone was used to spread messages in the community from the church, but it was time consuming and did not spread messages very far.
Finding the solution	The first was his use of existing skills and passion for editing films and music. In order to earn money when he first arrived in Nakivale, he sought new contacts to try and find equipment and resources for filming and editing.	The young man again used his technical skills and passion for ICT to build a makeshift radio transmitter with his church youth group. The transmitter was made from locally found scrap material from an old radio, mobile phone and a calculator. He had no formal training to do this and taught himself online and learnt through others.
Adapting and using the solution	He filmed weddings, concerts and other events in the settlement by renting a camera, lighting and microphones from a variety of different refugees. He also rents a computer in order to do the editing. Access to power is a challenge and he uses the UNHCR initiated Community Technology Access centre (which includes an internet café) for power from their solar panel set-up and occasional access to the internet. He spends about 5 hours per day at the centre.	The radio programme schedule is shared between members the youth group. Even in its early stages the radio has already brought together one separated refugee family and also generates a small income through song requests. In addition the radio has started to provide public health messages.
Scaling the solution	He did not know of anyone else who was providing the same service as him in the settlement and access to capital and power limited how much he could scale his business.	If successful the radio will obtain a permit from the government, and try to initiate further income generating activities.

Table 1: Innovation processes for a video editing business and youth radio programme

This first example shows the connectedness of an individual's innovations, which are embedded into the local economy and social networks, and also highlights his resourcefulness when finding new solutions despite limited access to resources. It highlights challenges to scaling-up local innovations, in this case mainly due to lack of access to capital for equipment.

Example 2: Facilitation of local innovation

The youth group COBURWAS International Youth Organization to Transform Africa (CIYOTA 2013), which was initiated in Kyangwali Settlement in Western Uganda in 2005, focuses on providing access to education for many young refugees, orphans and national youth in the region. In addition to its education activities, CIYOTA acts as a strong community base in the settlement. When members of the group or other people in the community have an idea that they would like to implement locally, they come to CIYOTA for advice and support. The groups that have been born out of CIYOTA so far range from women's working cooperatives to a theatre group that helps to tackle social issues in the settlement. The groups use CIYOTA's buildings to have meetings, rehearse or run their

activities, and CIYOTA's strong international network enables the groups to have access to partners and funding.

This second example illustrates a model of a locally initiated innovation space that fosters communities' own ability to solve problems and bring ideas to life. With a combination of in-depth case studies on a variety of 'innovation spaces' that facilitate local innovation, HIP seeks to understand the processes, business models and impact of the different spaces. These two examples provide just an illustrative snapshot of the type of material that HIP hopes to build on by using the perspective of bottom-up innovation, therefore leading to a deeper understanding of local innovation and models for informing how it can be supported and fostered.

9 Conclusion

Innovation has rapidly emerged as one the most widely discussed themes within the humanitarian world. However, in many of the existing debates, innovation is poorly understood or based on limited research. Furthermore, existing work on humanitarian innovation can broadly be considered as occupying two very different 'worlds' of innovation: one 'top-down' and the other 'bottom-up'. The overwhelming majority of humanitarian innovation work occupies the former of these worlds. It focuses mainly on how to improve organisational response, making it more efficient, effective, and sustainable. This is crucial work, with a significant contribution to make, not least in improving responses during the emergency phase. However, it is not the only approach to humanitarian innovation. Instead, this paper has argued that it is possible to conceive of an alternative, 'bottom-up' approach to humanitarian innovation.

Attempting to move beyond the rhetoric of 'bottom-up' language, this paper has begun to elaborate what bottom-up innovation means in general, and for the humanitarian context in particular. In order to do so, it has surveyed a range of relevant literature from different disciplinary perspectives, most notably innovation theory, design theory, and participatory methods. In each case, it has highlighted the strengths and weaknesses in what these perspectives have to offer, integrating them as a way of beginning to think through a practical framework and research agenda through which to advance bottom-up humanitarian innovation that might be applied to the emergency phase, protracted crises, and recovery, in ways that draw directly upon the skills, aspirations, and entrepreneurship of so-called beneficiary communities. The aim is not to replace the role of external interventions but to offer ways in which an enabling environment can be developed that better facilitates and works within the existing adaptive capacities of communities and their wider networks. By deepening the understanding of 'user' perspectives, capacities and systems in humanitarianism, the proposed research framework outlined in the paper seeks to better recognise ways in which innovation processes already occur within affected populations and identify the opportunities and challenges that exist for creating sustainable solutions within those communities. This has the potential to enable people to move beyond humanitarian dependency and become active partners in finding their own solutions. The vision for this future practice is one which offers alternative and sustainable humanitarian solutions, in which people are no longer viewed as dependent on traditional aid hand-outs, but instead are

supported to engage in their own innovation, fostering self-reliance and leading to solutions that are sustainably integrated within existing social systems.

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