Knowledge in development aid and healthcare: a comparative analysis

Other

The Open University

Innovation
Knowledge
Development

KNOWLEDGE IN DEVELOPMENT AID AND HEALTHCARE: A COMPARATIVE ANALYSIS

IKD Working Paper No. 61

October 2011

Alex Borda-Rodriguez

Contacts for correspondence:

Alex Borda-Rodriguez
A.Borda-Rodriguez@open.ac.uk

www.open.ac.uk/ikd/publications/working-papers

Knowledge in Development Aid and Healthcare: A comparative analysis

Alex Borda-Rodriguez
Development Policy and Practise
The Open University
Email: A.Borda-Rodriguez@open.ac.uk

Abstract

Effective delivery in the fields of development aid and healthcare relies on knowledge and its communication. Institutions, practitioners and the end-users are examined in these two fields as key actors in the production and communication of knowledge. Similarities and differences, and strengths and weaknesses of their approaches to knowledge are compared. Knowledge is shown to be an intrinsically political process in which institutions and practitioners play a critical role in its communication. Establishing a common background is essential to communicate knowledge effectively. The World Bank's notion that knowledge is a simple commodity should be challenged.

Keywords: healthcare; development aid; knowledge; information; institutions; knowledge translation; communication.

Introduction

The production and dissemination of knowledge is often determined by the power various actors are able to exert on others. Bourdieu (1983) used the term 'field' to refer to the setting in which actors and their social positions are located. Every field is governed by rules that drive actors to accomplish an overarching goal. This paper explores the assumptions, approaches and ways knowledge is communicated in two fields: development aid and healthcare. Each of these fields is constituted by actors that co-exist in a chain-like arrangement where power relations and tensions between them continually reshape and influence the content and nature of knowledge that is procured, produced and communicated.

Development aid, also known as Technical Assistance or Technical Cooperation (TC), refers to the adaptation or facilitation of ideas, knowledge, technologies or skills to foster development; it is normally carried out through the provision of long and short term personnel (Morrison 1998). The Organisation for Economic Co-operation and Development (OECD, 2002) has defined TC as: 1) grants to nationals of aid recipient countries receiving education or training at home or abroad, and 2) payments to consultants, advisers and similar personnel as well as teachers and administrators serving in recipient countries, including the cost of associated equipment. Development aid is provided by developed countries with the intention to improve the level of knowledge, skills, and technical know-how of developing countries. The United Nation Development Programme uses the term capacity building to describe the same process (UNDP 1997).

The field of healthcare encompasses a series of interconnected actors where knowledge production and communication is paramount (Abidi, 2008; Bali, 2005, CIHR, 2008, Davison, 2009). In this field, the effective provision of healthcare services and prevention of disease amongst end-users is the key goal.

The development aid and healthcare fields can be divided into three levels: macro, meso and micro. Three critical actors are identified across these levels: *institutions, practitioners and end-users*. These actors form a chain, one in which linked interdependencies are necessary in order to produce and communicate knowledge.

In this paper, I explore how these actors interact with one another and how different approaches to knowledge have been used. This paper explores how both fields can learn from one another's practices and further, it unpacks the shortcomings of the way knowledge is approached in these fields.

I start by analyzing key conceptual definitions and outlining the differences between information, tacit-explicit knowledge, scientific knowledge, evidence and knowledge as capacity for action. I then explore the conditions of interaction between these three sets of actors and discuss the weaknesses and strengths of approaches to knowledge in both fields. The paper seeks to inform both fields by identifying similar and diverse approaches to dealing with knowledge and provides a set of considerations that can improve knowledge communication across actors in both fields. Table 1 describes the key actors within both fields.

Macro-level	1. International institutions: – Philanthropic organisations (e.g. Gates Foundation, Rockefeller Foundation) – Development agencies (e.g. Canadian International Development Agency (CIDA), United States Agency for International Development (USAID)) – Pharma and biotechnology institutions (e.g. Pfizer, Sanofi Aventis, GlaxoSmithKline, Novartis, Merck)	Healthcare and development **practitioners**
Meso-level	2. Academic institutions – Universities, research centres, laboratories, 3. Government institutions – Ministries, national regulatory agencies, civil organizations (e.g. NGOs)	
Micro-level	4. End-users: – All citizens, patients, local civil associations and vulnerable poor people –	

Table 1. Knowledge chain in healthcare and development aid

The following sections of the paper elaborate the defining aspects of information, knowledge and evidence.

Different utterances of knowledge

Information

Information is a set of facts or details, presumed or verifiable to be false or positive, that tell you something about a situation or an event. Provided that there is someone able and willing to make sense out of it, information only becomes significant in the process of its practical application. Furthermore, information can be reproduced at zero-cost. Any buyer of information, or anyone who happens to have it, can become a producer of it (Gambardella, 1995:50). Information it is accumulated, for example, in reports, data bases, books and in can also trigger action and for that to happen human agency is needed. In both development aid and healthcare, information assumes the form of leaflets, handbooks, guidelines, and the like. The nature of information and its content is significantly different across the fields. For instance, in healthcare, some types of information are protected by patents and intellectual property rights (Attaran, 2001,2004; Hemphill, 2010; Hollis et al 2009) while in development aid, information is assumed to be a public good and is available to anyone (Barret, 2007). This distinction is crucial, partially explaining the way knowledge is treated in both fields. I return to this discussion later in the paper.

Tacit and explicit knowledge

There are two major knowledge categories, tacit and explicit. Tacit knowledge is procedural, guiding behavior but not readily available for introspection; this form of knowledge is acquired largely from experience (Sternberg et al, 1999:233). Explicit knowledge is also referred to as *codified* and is transmittable in formal, systematic language (Nonaka and Takeuchi, 1995:59). Neither tacit nor explicit knowledge are produced in a political and institutional vacuum. Behind each theory, model or concept of knowledge there is an underling ideology, a set of ideas that directs knowledge production, its content and dissemination. In a Foucaultian sense (Foucault et al 1986; Kritzman et al, 1988; Rabinow et al 1984), one can argue that there are discourses that

shape and direct the content and intention of knowledge (Borda-Rodriguez, 2009). For instance, Rose (1997:53) points out that science is not neutral, its objectivity is only skin deep, shaped at least in part by our own social expectations and philosophy. This assertion holds true when one analyses the nature and political orientation of each actor involved in the production and communication of knowledge. Tacit and explicit knowledge are produced in politicized contexts in which practitioners, institutions and end-users are thought to comply with established agendas. These agendas are often exercised in the context of institutions, where the actors' behaviors both influence and are influenced and where knowledge is dealt with and communicated in accordance with the agenda. This is of course a complex process, one in which actors can variably contribute, cooperate or contest the agenda being exercised.

Agendas tend to be exercised by powerful and influential institutions such as the World Bank (WB) International Monetary Fund (IMF) and United Nations (UN) that establish what types of evidence are regarded as relevant in the production of knowledge and determine what is acceptable as evidence. The same institutions decide whether certain questions are to be asked and whether certain types of evidence are ignored or dismissed as invalid (Leach and Mearns 1996: 14).

For development and healthcare practitioners, tacit knowledge is a very important asset. This type of knowledge is built through comparative experiences and relationships in the context of the field where circumstances can be worked out towards an optimal strategy to deliver health care and development aid to end-users.

Scientific (universal) and relative knowledge

Knowledge produced by developed countries tends to be regarded as scientific. As Kyburg (1990:3) points out:

> 'Science – the scientific method, the libraries of scientific knowledge, the sophisticated theories that guide us to the inside of the atom and to outer reaches of the universe – is the glory of Western culture'.

In this sense, scientific knowledge produced by developed countries has become accepted as a generalised truth applicable everywhere ('universal'). Developed countries, by this reasoning, are perceived to have the best practices (because they are scientific) that developing countries *should* emulate. This then provides the justification to communicate such knowledge *"down"* to those actors that need it.

Michel Foucault (1980) argues that truth is relative, being constructed in particular moments of history and reflecting social power relations. On this point, Habermas (1984) proposes that truth is a validity claim (the commitments that speakers make) that needs to be challenged. Thought of in this way, truths are not forever, although they can be sustained over relatively long periods where they appear to be natural and non-negotiable.

In development aid one can find truths that remain almost unchallengeable. For instance, as a way of informing and measuring the impact of development aid, the World Bank defines extreme poverty as the average daily consumption of $1.25 or less (World Bank, 2010). Definitions such as these are taken to be universal truths and are unlikely to be challenged by the actions or perceptions of relatively powerless organisations and individuals who are on the receiving end of the Bank's aid.

In the healthcare field, scientific knowledge is regarded as a key factor in the development of technologies (e.g. vaccines, reproductive health (see PATH, 2009)) which are often patented and protected by intellectual property right laws. This kind of protection does not occur in development aid where knowledge is considered a public good and everyone, in principle and in objective, should has access to it.

Evidence

In both development aid and healthcare, evidence is accumulated through structured observations which in turn are evaluated and systematized (Mayo et al, 1991). Using the best available evidence is a fundamental aspect of quality health care (e.g. Evidence Based Medicine) and successful development interventions. Key features of evidence include availability, accessibility, validity, timing, communicability and manipulability (Lemieux-Charles et al, 2004).

Knowledge as capacity for action in health and development aid

Lawson and Appignanesi, (1989) argued that knowledge constitutes credible stories about the world; each story represents a particular group's knowledge and perceived reality. Producing a specific story involves a process of interaction and negotiation between individuals, between institutions, and between individuals and institutions. Although some stories about the world are more predominant than others, some forms of knowledge are prioritized and others disqualified (Johnson, 2009). Knowledge comes into being through individuals' practices which are continuously transforming. Such practices occur within organisations in which individuals' behaviours comply with various rules (written and unwritten), values and imperatives which in turn inform, shape and determine practices and outcomes.

Knowledge does not only constitute understanding and skills, it is also, as Stehr and Meja, (2005:305) argue, *capacity for action.* In the healthcare field, knowledge is defined as capacity to act competently (Wickramasinghe et al. 2005:33) and in the field of development aid, knowledge is power for social change (Johnson, 2009). Despite the number of definitions, knowledge in both fields has the same ultimate goal, to improve the wellbeing of vulnerable individuals. Knowledge can assume two broad forms: 1) as a public good, meaning that its consumption by one individual does not reduce its availability for others; and 2) as a private commodity/service for which one needs to pay in order to access it. This distinction is important as it describes the main features of knowledge within the development aid and healthcare fields.

Identifying knowledge actors across fields

Knowledge is produced and disseminated in a number of ways, including communities of practice (Borzillo, 2007; Wenger et al., 2002; Hildreth et al., 2004), knowledge partnerships (Abrahamsen, 2004; Marra, 2004; Winkelen et al 2006), and online platforms (Karacapilidis, 2010). The key actors that facilitate production and communication in development aid and healthcare are *institutions*, *practitioners* and *end-users*. The interactions amongst these key actors are mediated thorough power relations and political and economic agendas that dictate the content and forms in which knowledge is produced and communicated.

Institutions

Institutions embody a range of social practices. Socially embedded, institutions are 'sets of rules that structure social interactions in particular ways, based on knowledge shared by members of the relevant community or society' (Knight, 1992:2). Within institutions, compliance to the rules is exercised through incentives and sanctions that influence people's behaviour.

Hospitals, universities, research centres, and funding agencies (public and private) are examples of institutions that are constituted by individuals who operate according to specific agendas and norms. Such individuals (e.g. healthcare and development practitioners, scientists, policy makers, and end-users) come together to achieve joint objectives because they are bound by some common purpose (North, 1990:4). Thus institutions bring together individuals or groups for collective purposive actions.

In the fields of healthcare and development aid there are a number of institutions that need to cooperate and interact. These include charitable foundations, central government, ministries, research centres, NGOs and universities. Such interactions are mediated by power relations that often are expressed in the form of financial ties and dominant discourses that frame the nature and content of knowledge. For instance, academic organisations such as universities perform applied research tasks. Nelson and Rosenberg (1993) show that American universities supply research services to local industry which in turn provide funds for research projects. Private and public partnerships (PPPs) are commonplace in the healthcare field where transnational institutions, like Pfizer, for example, work in collaboration with public research centres and universities (Arbanas, 2008). The main concern about PPPs are the inherit power relations between those who provide and receive funds (Börzel et al,2005). These unequal power relations can also be observed in development aid, a field in which donor countries and poor nations engage with each other in order to fight poverty.

Practitioners

Practitioners are individuals with extensive knowledge, experience and expertise in a specific area. Practitioners are also described as *conveyors* (Havelock 1969), *brokers* (Weiss 1977), *intermediaries* (Huberman 1994) or *lobbyists* (Milbrath 1960, 1963). In the fields of

development aid and healthcare, practitioners include development experts (i.e. advisors and consultants), policy makers, scientists, and healthcare practitioners (i.e. medical doctors, nurses). Practitioners utilise specialised (expert) knowledge in order to improve, assist and prevent disease amongst end-users. Practitioners produce knowledge, working under diverse institutional umbrellas (i.e. government, agencies, hospitals, universities) and thus respond and comply with specific norms and rules. Because of the complex nature in which they operate, scholars like Clay and Schaffer (1984:148-156) have argued that practitioners' knowledge is one in which new languages and interpretations are created in order to discuss, analyse and solve problems.

Scientists need *patrons* (Gambardella 1995) to support their activities and this takes the form of institutional support. As intermediary practitioners between the institution and the end-user, scientists must interact with both the macro and micro levels of the knowledge chain. While there is little research in the healthcare field on how knowledge production and communication can be improved along this chain, these interactions have been explored in the development aid field. For instance, Borda-Rodriguez (2009) and Moncrieffe et al (2007) show how development practitioners are faced with rigid institutions and dominant development discourses that do not encourage critical and reflective attitudes amongst practitioners.

Development workers' relation to knowledge has been studied since the 1950s when they were generically referred to as *experts* who were selected not only for their technical competence but also for their 'sympathetic understanding of the natural backgrounds and specific needs of the countries to be assisted' (Goldschmidt 1959:54). These ideal qualities expected of the expert heralded an enduring challenge for knowledge for development – the challenge of effective communication between people who probably have very different understandings of the world.

Whether the field is development or healthcare, practitioners must come to share the views of those in the worlds in which they work. To be able to understand and relate to one another is critical to the effective communication of knowledge. Habermas (1984) sheds light on these communicative processes. He argues that there are general presuppositions and assumptions upon which understanding and communication takes place (Habermas 1976: 21). Development and healthcare workers engage with numerous individuals and institutions. The extent to which communication is truly successful, however, depends on whether a common shared background exists or can be built to facilitate communication (Fisher, 2003). Habermas further argues that

skills and competences enable this communication. More specifically, we need to have the ability, not just to formulate meaningful sentences but rather to engage others in interaction. This is possible, in as much as actors share a cultural and material world.

End-users

End-users are the ultimate beneficiaries of knowledge in development aid and healthcare. End-users in these two fields include all citizens, especially the poor, vulnerable, sick. In both fields, end-users are instrumental to the generation of knowledge. In healthcare, for example, end-users play a critical role in the generation of scientific evidence in clinical trials. In development aid, end-users are instrumental in the generation of knowledge through their participatory role through voicing their views in deliberation (Chambers 1983; 1992; 1997; 2002). End-users are not necessarily passive recipients of knowledge; evidence from the development aid field shows that they are well capable of organising themselves and contesting knowledge promoted by powerful development institutions (Borda-Rodriguez 2009; Grammig, 2002).

Knowledge in healthcare

In an analysis of 205 documents on knowledge in the healthcare literature, Contandriopoulos et al (2010) concluded that there is no clear, dominant definition of knowledge although there is a generic notion of information. Ironically, from knowledge management strategies (Abidi, 2008:2; Bali, 2005; Beveren, 2003) to knowledge processes (CIHR, 2008), the healthcare field is deeply concerned with the way knowledge is communicated across actors and diverse institutional settings despite no common agreement on definition. The scholarly work on healthcare knowledge management is vast and deals with various aspects of healthcare. In health care, Knowledge Translation (KT) is the most widely use approach to knowledge.

Since early 2000's, KT has been pioneered and promoted by the Canadian Institutes of Health Research (CIHR) an agency that funds research in healthcare. I focus on CIHR 's approach to KT as it is one of the first government agencies in the developed world to formally conceptualize an approach to knowledge in the context of healthcare. KT is now widely used across health care settings and it is rapidly being adopted by healthcare institutions across the world.

Knowledge Translation

Can knowledge embodied in practitioners and end-users be translated? What does the process consist of? How does translation occur? It is widely understood that *translation* is the action or process of turning one language into another. It is the expression or rendering of something in another medium or form (Oxford English Dictionary, 2009). In this section I explore the current KT approach and policy documents produced and inspired by the CIHR.

In recent years KT has become a key component for healthcare (IDRC, 2008:1). Promoted mainly by health institutions in developed countries, KT has been defined by the CIHR as a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve health. Based on this approach to knowledge, the CIHR (2004:5) aims to excel in the creation of new knowledge and to translate that knowledge from the research setting to real-world applications in order to improve health. At the centre of this process lays effective exchanges between researchers and end-users. This approach to knowledge guides and influences the way funded research centres and universities undertake research. A number of key factors that appear to be critical in KT activities. These include research setting, real-world applications, effective exchanges between researchers and users, dynamic and iterative process and meaningful interactions.

CIHR articulates KT as having taken on the role of the bridge between knowledge and action. The World Health Organization (WHO), for example, has identified KT as a practice that should be used in healthcare settings. The WHO (2004:v) suggests a stronger emphasis on translating knowledge into action to improve public health by bridging the gap between what is known and what is actually done. Across the world other health research funding agencies have acknowledged the importance of KT in healthcare. These agencies include the United States National Institutes of Health (NIH), the Medical Research Council's (MRC) in the United Kingdom and the Canadian Health Services Research Foundation (CHSRF). These agencies promote and fund research on KT and related themes.

Healthcare practitioners play a key role in KT processes. In 2007, the USA Academic Emergency Medicine Consensus Conference addressed specific research methodologies in order

to investigate KT effectiveness. Some of the concluding remarks of this event were summarized by Compton et al (2007:991-995) in the following terms:

- Understanding how and why knowledge is transferred is vital to getting high-level evidence to the patients in the emergency department;
- KT research evaluates different levels such as individual-level behaviour (patient and provider behaviour) and system-level behaviour (community-based and health care systems). It also examines at the micro level (person/family level or provider practice level) and at a macro level (health and social policy);
- KT intervention research methods should, when possible, explore, use, or test theory-driven models of behaviour and behavioural change to maximize the internal validity of the study and the reproducibility and generalisability of research findings.

Curiously, while KT researchers recognize behaviour to be a factor, they ignore what shapes and drives that behaviour. In fact knowledge in healthcare is most often presented as an apolitical process, one in which actors lack individual or institutional agendas. The unacknowledged reality of knowledge approaches and processes in healthcare is that all actors involved operate under institutional settings where norms and rules shape and influence human behaviour.

Tetroe et al (2008:142) comparatively studed KT across health research funding agencies in Canada, Australia, France, the Netherlands, Sweden, Denmark, Norway, United Kingdom, and the United States. Thirty-three agencies used twenty-nine different terms for KT, many of which were not clearly defined. Some of the KT processes include drama, films and health series.

Tetroe et al (2008) shows diverse ways in which KT processes are conducted, highlighting two key concerns: i) KT is an area that funding agencies recognize as very important because of the evidence gap between research, practice, and policy; and ii) 'no one agency stood out as being exemplary in the nature and extent of its KT efforts' (Tetroe et al 2008:151). Like Compton et al (2007), Tetroe's study does not explore whether diverse institutional settings play a role in KT processes.

Within the drug policy arena, Kerr and Wood (2008:233) argue that KT seeks to bridge the gap between evidence and policy by ensuring that scientific evidence is translated into language and

communicated to policy-makers. Other definitions of KT are elaborated on the basis of a more in-depth theoretical reflection. For example, Kulikov and Yelkin (2007:57) argue that:

> 'The key is the notion of knowledge itself. Theoretical knowledge is generated in the process of abstraction from concrete facts, which would enable a later user to predict facts yet to be discovered. Thus, knowledge is a certain universal conceptual structure applicable to a certain set of observed evidence, other kinds of knowledge, and abstract notions. The more universal the knowledge is, the wider its application might be'.

Kulikov and Yelkin's analysis of knowledge deals with the way one could anticipate facts based on prior knowledge (abstractions). Their analysis, however, is not sustained by a body of systematized theory or empirical evidence nor does it explain how their definition of knowledge relates to KT processes at the field level where practitioners and end-users engage with each other.

Despite the lack of robust theory, a small body of literature addresses the technical aspects of KT. For example, some of the key terms used in the realm of KT include knowledge utilization, knowledge transfer, evidence-based practice and innovation diffusion (Graham et al., 2006; Estabrooks et al., 2006) while some common KT activities refer to the selection of committee participants with diverse expertise or without an apparent conflict of interest, creation of executive report summaries and use of established media channels for release of reports (Hedges 2007: 925). These activities and features revolve around unclear definitions of what constitutes knowledge and information.

Critical points to the concept and use of knowledge in healthcare

Practitioners have diverse professional and cultural backgrounds which are put in place every time knowledge is produced and communicated. The CIHR (2008:7) has tangentially dealt with this critical factor by acknowledging that collaboration and consensus among partners are essential. However, CIHR does not explain how practitioners such as policy makers, scientists and academics can come together in order to produce and communicate knowledge amongst themselves and end-users.

The KT approach overlooks debates around learning and the extent to which institutions influence KT processes. In other words, there is not an acknowledgement of whether KT processes can be shaped or influenced by institutions and their agendas (i.e. ministry of health, health research centres, hospitals). Perhaps the closest statement to deal tangentially with institutions is put forward by Lang et al (2007:360) who argue that knowledge translation can be viewed as a clinical practice paradigm and a research agenda. Indeed, agendas are a resilient feature of institutions and need to be part of any KT process.

Knowledge in healthcare is demand driven. There is a pressing need to produce knowledge in a number of areas in health (i.e. HIV, Polio, Meningitis). Research in health is funded by both private and public institutions. The next section explores knowledge in the field of development aid. Unlike knowledge in healthcare, knowledge in development aid is supply driven. Notwithstanding this difference there are similarities and crucial differences in the way knowledge is approached and put into practice.

Knowledge in development aid

Knowledge production and dissemination have been a central part of development aid since its origins back in the 1940s (Rist 2000). In this field, it has always been well recognized that knowledge enables poor people to improve their wellbeing and livelihood in order to overcome poverty. Approaches to knowledge in development aid have changed over time. Back in the 1950s, development projects focused on transferring knowledge by experimenting with and using technology in poor countries (Degnbol-Martinussen and Engberg-Pedersen, 2003; Tarp and Hjertholm, 2000). Later, development aid emphasised knowledge transfer through the implementation of training schemes and advisory services. At present, knowledge for development is also made available through online initiatives and communities of practice (Karacapilidis, 2010; Letts et al, 2008; Nelson, 1995; Borzillo, 2007). Development aid does not, however, use the KT approaches as described and defined in healthcare to deliver and apply knowledge across institutions, practitioners and end-users.

Knowledge for development is produced to a large extent by developed countries that operate through their respective development agencies across the developing world. Development workers and academic observers have criticised the extent to which development aid has

successfully contributed to the wellbeing of poor people. In the 1960s, Mathiasen (1968:208) pointed out a growing sense that knowledge and ideas cannot be quickly or usefully transferred across cultural and scientific boundaries.

Forty years later, Powel (2006:1) argued that current understanding and use of knowledge within the development sector is generally poor, and that this fact represents a major barrier to the effectiveness of development interventions. A major problem surrounding knowledge in development aid is the assumption that knowledge can be transferred from one place to another as a tangible object (Borda-Rodriguez, 2009). This understanding undermines knowledge processes by assuming knowledge ought to be embedded in technologies (i.e. tractors, pesticides, etc).

An important feature of knowledge in development aid is its explicit intentionality and political orientation (i.e. poverty eradication). Some of the most pervasive criticisms of development aid suggest that development is no less than the projection of the western dream upon poor countries (Mehemet, 1999). In this line of criticism, knowledge intends to modernise developing countries by emulating western democracies in the developed world. Post-development theorists argue that development has not delivered and instead has worsened matters in developing countries. These claims have been widely examined in the works of Illich (1997), George (1997), Escobar (1984, 1988, 1992, 1995) and Sachs (2003). In any case, and despite a historical record of documented failures, development aid continues to produce and supply knowledge to the developing world. On this point, Chataway and Wield (2000) argue that supplying knowledge is unlikely to solve the essential problems of *absorption and learning*. Clearly, one cannot escape a general malaise associated with unfulfilled expectations from the mountain of critical literature.
In development aid, there is a concern about the different ways of processing and capturing tacit knowledge. Authors like Ramalingam (2005) have produced a detailed synthesis of the existing research on knowledge and learning in the development aid sector. Like other authors, Ramalingam is driven by an interest in exploring new strategies that could allow development aid and agencies to achieve greater impact in poor countries. To a large extent, therefore, contemporary development institutions (e.g. development aid agencies, research centres, universities) are showing an interest in learning from their end-users in the developing world, who are assumed to have strong tacit knowledge of their local contexts (Chambers, 1997; Johnson and Wilson, 2000). Equally, much of what is learnt and produced in terms of knowledge

is rooted in the analysis of the ongoing reality of developing countries. Thus, development institutions make use of participatory approaches such as rapid rural appraisal (Chambers, 1983, 1992, 1997).

Rapid rural appraisal and participatory rural appraisal are used to identify the views and knowledge of end-users about cultural and socioeconomic aspects of their lives, and to incorporate their knowledge and opinions in the management and implementation of the projects. These approaches can be regarded as collaborative assessments and research tools. Within development, knowledge is not only elicited through these approaches but a great deal of attention is also paid to the extent knowledge is *absorbed* and whether *learning processes* are reflexive.

Learning is a key component of any knowledge processes in development aid. Stein and Ridderstrale (2001) argue that learning begins with a process of internal simulation that causes a person or institution to draw on past experience in trying to interpret and assess the significance of current events and thereby to be better prepared to understand and even anticipate future events and circumstances. Related to this is the idea that learning is somehow a cyclical process whereby people and institutions reflect on actions, knowledge and experience, and, as a result, reframe their perceptions of their original experience, leading to new actions in the future (Binney and Williams, 1995). The purpose of learning is to improve institutional practice; there should be an action outcome (Binney and Williams, 1995; Pedler et al., 1991). A stage of reflection and questioning is critical to an effective learning process. The development aid literature has engaged with learning processes in light of knowledge (Johnson and Wilson, 2009). The same cannot be said for the healthcare field where learning and knowledge are barely explored and discussed together.

Knowledge and institutions

Institutions are central to the way knowledge is produced and disseminated across the developed and developing world. Some of the key institutions in development aid include the WB, UN and bilateral development aid agencies such as the Netherlands Development Organisation (SNV), USAID, CIDA. Amongst all development institutions, the WB is both the main lender and the world's largest development research organisation, producing a large amount of knowledge

(Broad, 2007:701). Heralded by its 1998/99 Annual Report, *Knowledge for Development*, it describes itself as the 'Knowledge Bank' (Mehta, 2001; Gilbert and Vines, 2000). The concept of a *knowledge bank* was first introduced by World Bank President James Wolfensohn in his address to the 1996 Annual Meeting of the World Bank and the International Monetary Fund. Interestingly, development practitioners and academics have criticised the fact that WB's knowledge for development has assumed the form of a commodity or product (Gumucio, 2006; Schech and Haggis, 2000:211). Conceptualising knowledge as a product or commodity accords with the notion that knowledge is something that can be passed or transferred from the erudite to the ignorant. As Malik et al. (2002:13) notes, the underlying premise of knowledge transfer is that poorer countries can simply adopt a template that has been refined over time in the richer countries. No need to reinvent the wheel. Similarly, Gumucio (2006) also argues that knowledge for development has been perceived as a one-way commodity, as an ingredient of development aid given by those who have to those who do not.

Gumucio (2006) goes on to articulate his preference for a process-oriented view of knowledge in development aid, stressing that communication is central to it. Drawing on his professional experience of how development programmes are often imposed upon beneficiaries in poor countries, he suggests that learning and knowledge sharing require the creation of safe spaces to enable critical feedback, in other words, spaces where a process of knowledge generation can occur through communication. However, one needs to go one step further and consider the extent to which the nature of development aid makes it almost impossible to communicate and share knowledge in the way that Gumucio advocates.

Critical points to the concept and use of knowledge in development aid

The assumption that poor countries lack scientific knowledge has been one of the major rationalizations for development interventions since the 1950s. The assumption that poor countries have a 'knowledge deficit' has been core to the debates about poverty eradication. This debate and others are examined in the work of Tarp and Hjertholm (2000) and Degnbol-Martinussen et al. (2003) who compiled a historical analysis of development aid. Their accounts, however, neither critically analyse how knowledge for development has played a major role in development interventions, nor do they explore the critical role of knowledge within international development agendas.

Since development aid was established in the late 1940s, knowledge was seen as supply-driven, produced, communicated and disseminated even when end-users do not require it (Borda-Rodriguez, 2009). Knowledge has been regarded as a thing, object or commodity – a technology that can be transferred through aid or through market mechanisms.

Comparative analysis

In both the healthcare and development fields, the tacit dimension of knowledge is not translated but communicated. Communication starts with the recognition and acknowledgement of the constellation of roles played by all actors involved in the production of knowledge. Nonaka and Takeuchi (1995: 9) argue that for tacit knowledge to be communicated and shared within the institution, it has to be converted into words or numbers that anyone can understand. That is to say, knowledge needs to be represented and rendered in the form of information that can be manipulated and shared. Knowledge representations can be designed to be written and read by the general public and use electronic devices, however they are meaningless if they cannot be interpreted. Interpretation is normally conducted by practitioners who have specialised backgrounds and expertise. The challenge arises when there is no shared background and no ability to recognize the value of new information, assimilate it and apply it (Cohen and Levinthal 1990, Zarah and George, 2002). Both shared background and the ability to absorb new information are essential for knowledge to be shared and communicated between practitioners and end-users.

In both fields, knowledge production and communication occurs through a process in which actors are required to re-learn and reflectively engage, critically analysing their professional practices. Yet these processes need to be further explored by researchers in either field.

Table 2 portrays the actors involved in knowledge production and communication in the form of a chain. I argue that within this chain, the production of knowledge and approaches to its communication must start with supporting learning and establishing a shared background upon which all actors can relate and engage with each other. Equally important is to enable and realize the roles and capacity of all actors involved in the chain in knowledge creation and communication.

	Healthcare	Development Aid
Institutions	– Profit driven: e.g., Pfizer, Sanofi Aventis, GlaxoSmithKline, Novartis – Non-profit driven: e.g., Bill & Melinda Gates Foundation, Rockefeller Foundation, Global Alliance for Vaccines and Immunisation (GAVI), Program for Appropriate Technology in Health (PATH) – Academic research centres, universities, etc.	– Non-profit driven: Bilateral Agencies, Development aid agencies, (e.g., USAID, SIDA, CIDA) – Multilateral Agencies**:** e.g., World Bank, United Nations, International Monetary Fund – Academic research centres, universities, NGO's, etc.
Type of Partnerships	– Public and Private Partnerships – Unequal power relations mediated by financial ties	– [Developed] government-to-[Developing] government partnerships – Partnerships are mediated through bilateral and multilateral development organisations
Practitioners	– Scientists, medical doctors, nurses, healthcare consultants, healthcare workers, academics, etc. – Role: Knowledge production and communication	– Consultants, advisors, facilitators, on-field researchers, field-workers, academics, etc. – Role: Knowledge production and communication

End-users	– Patients, vulnerable people and general public – Sources of knowledge and information	– Vulnerable people, poor people as defined by the World Bank, including farmers, artisans, pregnant woman, elderly and children – Source of knowledge and information

Table 2. Comparative knowledge chain across development aid and healthcare

Table 3 outlines the key characteristics of knowledge in both fields. Similarities are identifiable across both fields, including the assumption that *knowledge is a commodity* (in healthcare see Contandriopoulos et al 2010:462; in development aid see Gumucio 2006) and the fact that *knowledge is evidence-based*. As for differences, the development aid field produces and promotes open access to knowledge and information. This is based on the assumption that knowledge is a key factor in the fight against poverty. Knowledge and information in healthcare, however, tend to be protected by patents and intellectual property rights.

Healthcare	**Development Aid**
– Knowledge Translation approach focus on turning research into action – Non- standardised KT approaches across healthcare agencies – Knowledge protected by patents and copy rights	– Knowledge as capacity for action – Knowledge is a public good and in principle available to everyone
– Knowledge production and communication is predominantly demand driven – Funded and demanded by private	– Knowledge production and communication is predominantly supply driven by northern development aid

pharmaceutical institutions	agencies – Funded and supplied by developed countries and their respective development institutions (e.g. bilateral development aid agencies)
– Knowledge perceived to be a commodity – Knowledge is evidence based	– Knowledge perceived to be a commodity – Knowledge is evidence based

Table 3. Characteristics of knowledge in Healthcare and Development Aid

Discussion

The paper has explored the similarities and differences concerning how knowledge has been addressed in the fields of healthcare and development aid. The similarities include the assumption that knowledge is a commodity, similar actors and communication processes at the centre of both fields. The dissimilarities are perhaps more striking. I show how knowledge in healthcare is represented as an apolitical process, one in which actors' agendas or political intentions are not explicitly stated. Healthcare is a field in which knowledge is demand driven and predominantly funded by private institutions that in turn patent and limit the communication of knowledge. Another feature of knowledge in the healthcare field is the need to further explore the role of institutions and 'learning' as a key factors of KT processes.

In the development aid field knowledge is supply driven in so far as it is mainly provided by developed countries. The political intent of knowledge in this field is explicit -- to eradicate poverty. Knowledge in this field can be produced and disseminated through participatory approaches and it is in principle available to all citizens. Although development aid has been concerned with knowledge since the 1940s knowledge is still assumed to be a commodity that can be transferred from one place to another one. Learning has been explored within this field and yet further research is needed.

Both fields are heavily concerned with knowledge and its communication. For this to happen, I

argue that actors in the knowledge chain need to be able to relate to each others' personal or institutional interests. This can be achieved by establishing a space for the sharing, when actors interact, of underlying assumptions, beliefs and norms that are otherwise uncritically accepted. As Fischer (2003:199) notes, it is the existence of these background beliefs that makes communication possible particularly amongst development and healthcare practitioners.

Knowledge communication includes and involves negotiation, dialog and debate. These are aspects of any knowledge processes and need to be considered and carefully analysed. In both the healthcare and development fields, the approaches to knowledge and its communication need to reconsider the importance of capacity to reflect and learn.

References

Abidi, S.S.R.2008. "Healthcare Knowledge Management: The Art of the Possible". Lecture Notes in Computer Science. 4924: 1-20.

Arbanas C. 2008. Washington University and Pfizer extend research collaboration agreement. Newsroom, Washington University in St Louis. Accessed July 3, 2010: http://news.wustl.edu/news/Pages/10886.aspx

Abrahamsen, R. 2004. The Power of Partnerships in Global Governance. *Third World Quarterly*, **25**(8): 1453–67.

Attaran, A. 2004. How Do Patents and Economic Policies Affect Access to Essential Medicines in Developing Countries? *Health Affairs* **23**(3): 155–66.

Attaran, A. and L. Gillespie-White. 2001. Do Patents for Anti-Retroviral Drugs Constrain Access to Aids Treatment in Africa? *Journal of the American Medical Association,* **286**(15): 1886–92.

Bali, R. 2005. Clinical Knowledge Management: Opportunity and Challenges. Idea Group Publishing. London.

Bali, R. K, Dwivedi, A. N. 2006. Healthcare knowledge management: Issues, advances and successes. Health informatics series. Springer, New York.

Binney G, Williams C. 1995. Leaning into the future: changing the way people change Organisations. Nicholas Brealey Publiser.

Barrett S. 2007. *Why cooperate? The incentive to supply global public goods.* Oxford University Press, Oxford.

Borda-Rodriguez A. 2009. Knowledge for Development? Reflections from Consultants and Advisors in Bolivia,*Development Policy and Practice*, The Open University, UK.

Bourdieu P. 1983. The Field of Cultural Production. *The Economic World Reversed' in Poetics*. **3** (1) 1-56.

Börzel TA, d T. Risse. 2005. Public-Private Partnerships: Effective and Legitimate Tools of International Governance? in E. Grande and L. W. Pauly (eds) *Complex Sovereignty: Reconstituting Political Authority in the 21st Century* (Toronto: University of Tornot Press).

Broad, R. 2007. Knowledge management: a case study of the World Bank's research department. Development in Practice **17**(4-5): 700-708.

Chataway J, Wield D. 2000. Industrialization, innovation and development: what does knowledge management change? *Journal of International Development* **12**(6): 803-824.
Chambers, R. 1983. *Rural Development: Putting the Last First*. Longmans. UK.

Chambers, R. 1992. *Rural appraisal: Rapid, relaxed and participatory*. IDS Discussion Paper 311. Brighton: IDS.

Chambers, R. 1997. *Whose Reality Counts? Putting the First Last.* Intermediate Technology Publications, London.

Chambers, R. 2002. *Participatory workshops: A sourcebook of 21 sets of ideas and activities*. Earthscan Publications. London.

CIHR. 2004. *Evidence in action, acting on evidence, A casebook of health services and policy research knowledge translation stories.* Canadian Institutes of Health Research, Ottawa, Canada.

CIHR. 2006. *Innovation in Action, Knowledge Translation Strategy 2004-2009*. Canadian Institutes of Health Research, Ottawa, Canada.

CIHR. 2008. *Knowledge to Action: A Knowledge Translation Casebook.* Canadian Institutes of Health Research, Ottawa, Canada.

Clay E, Schaffer B. 1984. *Room for Manoeuvre: An Exploration of Public Policy Planning in Agricultural and Rural Development*. Fairleigh Dickinson University Press.

Cohen W. Levinthal D. 1990. Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly* **35**:128-52.

Contandriopoulos D, Lemire M, Denis J.-L, Tremblay E. 2010. Knowledge Exchange Processes in Organizations and Policy Arenas: A Narrative Systematic Review of the Literature. *Milbank Quarterly* **88** (4).

Compton S, Lang E, Richardson TM, Hess E, Green J, Meurer W, Stanley R, Dunne R, Scott-Findlay S, Khare RK, Grimshaw J. 2007. Knowledge Translation Consensus Conference: Research Methods. *Academic Emergency Medicine* **14**:991–995.

Degnbol-Martinussen J, Engberg-Pedersen P. 2003. *Aid Understanding International Development Cooperation*. Zed Books.

Davison C. 2009. Knowledge Translation: Implications for Evaluation. *New Directions for Evaluation* **124**, 75-87.

Estabrooks C.A, Thompson D.S, Lovely J.E, Hofmeyer A. 2006. A guide to knowledge translation theory. *The Journal of Continuing Education in the Health Professions* **26**, 25–36.

Escobar A. 1984. Discourse and Power in Development: Michael Foucault and the Relevance of his Work to the Third World. *Alternatives* **10**(3): 377-400.

Escobar A. 1988. Power and Visibility: Development and the Invention and Management of the Third World. *Cultural Anthropology* **3**(4): 428-443.

Escobar A. 1992. Imagining a Post-Development Era? Critical Thought, Development and Social Movements. *Social text Third World and Post-Colonial Issues* **(31/32):** 20-56.

Escobar A. 1995. *Encountering Development, The Making and Unmaking of the Third World.*

Princeton University Press, New Jersey.

Fischer F. 2003. *Reframing Public Policy: Discursive Politics and Deliberative Practices*. Oxforf University Press, Oxford.

Foucault M. 1980. *The Will to Truth*. Tavistock, London.

Foucault M, Hoy D. C. 1986. *Foucault: A critical reader*. Blackwell. Oxford.

Gilbertn J, Vines D. 2000. *The World Bank: Structure and Policies.* Cambridge University Press, Cambridge.

Gambardella A. 1995. *Science and innovation: The US pharmaceutical industry during the 1980s*. Cambridge University Press. Cambridge.

George S. 1997. How the Poor Develop the Rich. In *The Post-Development Reader*. Rahnema M, Bawtree V, Zed Books, London and New Jersey.

Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Carswell W, Robinson N. 2006. Lost in knowledge translation: time for a map? *The Journal of Continuing Education in the Health Professions* 26 **(1)**:13–24.

Grammig T. 2002. *Technical Knowledge and Development: Observing Aid Projects*. Routledge, London and New York..

Gumucio A. 2006. Knowledge, Communication, Development: A Perspective from Latin America. *Development in Practice* 16 **(6):** 593-602

Goldschmidt A. 1959. Program Planning and Development. *The Annals of the American Academy of Political and Social Science* **323**:50-58.

Havelock RG. 1969. *Planning for Innovation through Dissemination and Utilization of Knowledge*. Ann Arbor. Institute for Social Research The University of Michigan, Michigan.

Habermas J. 1984. *The Theory of Communicative Action*, Beacon Press, Boston.

Habermas J. 1976. *Theory and Practice*.Beacon Press, Boston.

Hemphill T. 2010. Pharmaceutical patent expropriation and technology strategy: strategic options to compulsory licensing. *Technology Analysis & Strategic Management*, **22** (1): 19-41.

Hildreth M, and Kimble C. 2004. *Knowledge Networks: Innovation Through Communities of Practice.* Idea Group Inc. London.

Hollis A, Palmedo M, Flynn S. 2009. An economic justification for open access to essential medicine patents in developing countries. *The Journal of Law, Medicine & Ethics* **37** (2): 184-208.

Huberman M. 1994. Research Utilization: The State of the Art. Knowledge. *Technology & Policy* **7**:13–33.

Illich I. 1997. Development as Planned Poverty. In *The Post-Development Reader*. M. Rahnema M. and Bawtree V. Zed Books. London and New Jersey.

Johnson H, Wilson G. 2009. *Learning for Development*. Zed Books. London

Johnson C. 2009. *Arresting Development, the Power of Knowledge for Social Change*. Routledge, London and New York.

Karacapilidis N. 2010. *Web-based learning solutions for communities of practice: Developing virtual environments for social and pedagogical advancement*. Hershey, PA: Information Science Reference.

Knight J. 1992. *Institutions and Social Conflict*. Cambridge University Press. Cambridge.

Kritzman L D, Foucault M. 1988. *Politics, philosophy, culture: Interviews and other writings,*

1977-1984. Routledge. New York:.

Kerr T, Wood E. 2008. Closing the gap between evidence and action: the need for knowledge translation in the field of drug policy research. *International Journal Drug Policy* **19**(3):233–234.

Kyburg E. H. 1990. *Science & Reason*, Oxford University Press.

Kulikov V, Yelkin V. 2007. Possibility of knowledge translation between various subject domains, *Scientific and Technical Information Processing*, **34** Number (1):56-62, DOI: 10.3103/S014768820701008X

Lang ES, Wyer PC, Haynes RB. 2007. Knowledge translation: closing the evidence-to-practice gap. *Annals of emergency medicine* **49**(3):355-63.

Lawson H, Appignanesi L. 1989. *Dismantling truth: reality in the post-modern world*. St. Martin's Press, New York.

Lemieux-Charles L, Champagne F. 2004. *Using Knowledge and Evidence in Health Care Multidisciplinary Perspectives*. University of Toronto Press.

Letts L, Douglas A. 2008. Poster 70: Knowledge Translation through a Community of Practice. Archives of Physical Medicine and Rehabilitation, **89** (10)

Malik K, Lopes C, Fukuda-Parr S. 2002. *Capacity for development new solutions to old problems*, United Nations Development Programme, Earthscan Publications, New York.

Marra M. 2004. Knowledge partnerships for development: what challenges for evaluation? *Evaluation and Program Planning* **27** (2):151.

Mathiasen K. 1968. Multilateral Technical Assistance. *International Organization* **22** (1): 204-222.

Mayo DG, Hollander RD. 1991. *Acceptable evidence: Science and values in risk management*. Oxford University Press. New York.

Mehemet O. 1999. *Westernizing the Third World*. Routledge. London and New York.

Mehta L. 2001. The World Bank and its emerging knowledge empire. *Human Organisation* **60**(2): 189-196.

Milbrath LW. 1960. Lobbying as a Communication Process. *Public Opinion Quarterly*. **24**:32–53.

Milbrath LW. 1963. *The Washington Lobbyists*. Rand McNally. Chicago.

Moncrieffe J, Eyben R. 2007. *The power of labelling: How people are categorized and why it matters*. Earthscan, London.

Morrison D. 1998. *Aid and Ebb Tide: A History of CIDA and Canadian Development Aid*. Wilfrid Laurier University Press, Ottawa.

Nelson RR, Rosenberg N. 1993. *American universities and technical advance in industry*. CEPR publication, No. 342. Center for Economic Policy Research, Stanford University. Stanford.

Nelson N, Wright S. 1995. *Power and participatory development: Theory and practice*. ITDG Pub. London.

Nonaka I, Takeuchi H. 1995. *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press. Oxford.

North D. 1990. *Institutions, Institutional Change and Economic Performance.* Cambridge University Press, Cambridge.

OECD. 2002. *Technical Co-operation*. OECD Publications Service. France. http://stats.oecd.org/glossary/detail.asp?ID=2686.Accessed: 10 July 2010

Oxford University Press. 2009. Oxford Paperback Dictionary & Thesaurus. Oxford University Press, Third Edition. Oxford and New York.

PATH and the Coalition Advancing Multipurpose Innovations. 2010. *Saving Lives With Multipurpose Prevention Technologies: Turning Ideas Into Solutions for Sexual and Reproductive Health*. PATH, Seattle.

Pedler, M, Boutall J, Boydell T. 1991. *The Learning Company: A Strategy for Sustainable Development.* McGraw-Hill.

Powell M. 2006. Which knowledge? Whose development? Whose reality? An overview of knowledge used in the development sector. *Development in Practice*, **16** (6): 518-532

Rabinow P, Foucault M. 1984. *The Foucault reader*. Pantheon Books, New York.

Ramalingam B. 2005. *Implementing Knowledge Strategies: Lessons from international development agencies*. ODI Working Paper, ODI, London.

Rist G. 2000. *The History of Development from Western Origins to Global Faith.* Zed Books. London and New York.

Rose S. 1997. *Lifelines: Biology, Freedom, Determinism*. Allen Lane, London.

Sachs W, Ed. 2003. *The Development Dictionary, A Guide to Knowledge as Power*. Zed Books, London and New York.

Schech S, Haggis J. 2000. *Culture and Development: A Critical Introduction.* Blackwell Publishing.

Borzillo S. 2007. *Communities of practice to actively manage best practices*. Wiesbaden: Deutscher Universitäts-Verlag.

Sternberg R., Horvath J. 1999. *Tacit Knowledge in Professional Practice: Researcher and Practitioner Perspectives*. Routledge.

Stehr N, Meja V. 2005. *Society & Knowledge: Contemporary Perspectives in the Sociology of Knowledge & Science*. Transaction Publishers. United States of America.

Stein J, Ridderstråle J. 2001. Managing the dissemination of competences. 63-76 In *Knowledge Management and Organizational Competence*, Sanchez R (ed.). Oxford University Press. Oxford.

Tarp F, Hjertholm P. 2000. *Foreign Aid and Development, Lessons Learnt and Directions for the Future.* Routledge. London.

Tetroe J. Graham I, Straus S E. 2009. Defining knowledge translation. *Canadian Medical Association Journal.* **181** (3-4): 165-8.

Van Beveren J. 2003. Does health care for knowledge management? *Journal of Knowledge Management*, **7**(1), 90-95.

Wenger E, McDermott A, and Snyder W. 2002. *Cultivating Communities of Practice: A Guide to Managing Knowledge,* Harvard Business Press.

Weiss CH. 1977. *Introduction to Using Social Research in Public Policy Making*. Lexington, MA: Lexington Books.

World Health Organization. 2004. World report on knowledge for better health'. World Health Organization, Geneva. Accessed:14.01.2010 at http://www.who.int/rpc/meetings/pub1/en/.

Wickramasinghe N, Gupta JND, and Sharma SK. 2005. *Creating knowledge-based healthcare organizations*. Hershey PA: Idea Group Pub.

Winkelen C, McKenzie J. 2006. Creating successful partnerships: The importance of sharing knowledge. *Journal of General Management*, **31**(4): 45.

World Bank. 2010. *Extreme poverty rates continue to fall*. http://data.worldbank.org/news/extreme-poverty-rates-continue-to-fall. Accessed July 3, 2010.