Communication & Implementation for Social Change:
Mobilizing knowledge across geographic and academic borders

Krystle van Hoof

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Supervisor: Helen Hambly Odame
ABSTRACT

In many academic disciplines, there are promising discoveries and valuable information, which have the potential to improve lives but have not been transferred to or taken up in ‘real world’ practice. There are multiple, complex reasons for this divide between theory and practice—sometimes referred to as the ‘know-do’ gap—and there are a number of disciplines and research fields that have grown out of the perceived need to close these gaps. In the field of health, Knowledge Translation (KT) and its related research field, Implementation Science (IS) aim to shorten the time between discovery and implementation to save and improve lives. In the field of humanitarian development, the discipline of Communication for Development (ComDev) arose from a belief that communication methods could help close the perceived gap in development between high- and low-income societies. While Implementation Science and Communication for Development share some historical roots and key characteristics and IS is being increasingly applied in development contexts, there has been limited knowledge exchange between these fields. The aim of this paper is to provide an overview of the characteristics of IS and ComDev, analyze some key similarities and differences between them and discuss how knowledge from each could help inform the other to more effectively achieve their common goals.

Keywords: Communication for development and social change, Diffusion of Innovations, Implementation Science, Knowledge Translation
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1. INTRODUCTION

“Communication can help to discover and understand problems, as well as potential solutions, among those engaged in the collective effort as well as those targeted … In addition to educating and mobilizing, communication sites serve as venues through which groups can contest interpretations of these problems and projects, which are … complex.” – Karin Wilkins (1998)

“We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline.” – Karl Popper (2015)

Background

In early 2015, one semester into my Masters in Communication for Development with the University of Malmö, I began a new job. The new job was with a health-research funding agency in Canada. My new title was Manager of Knowledge Translation and Policy. Before applying for this job, I had never heard of knowledge translation; though, from the job description, it seemed quite similar to work I had done in the past, in the field of communications. Nevertheless, soon after joining my new organization, I signed up for a week-long professional certification course in Knowledge Translation, with the hopes of gaining a better understanding of how the field defines itself from the inside and how it related to and differs from communications. Over the course of the week, I learned various definitions, and methods, tactics and theoretical frameworks in knowledge translation. I also learned about a closely related discipline: implementation science. What struck me
as I learned about knowledge translation (KT) and Implementation Science (IS) was not how closely they resembled the work I had previously done in communications but rather how closely they seemed to mirror the aims, methods and tactics of what I was learning through my coursework in ComDev.

On the last day of the course, the course director, an Implementation Scientist, gave a brief overview of IS. She also spoke of a few research projects she was currently involved with related to maternal-child health in a number of countries in Africa. I was excited to learn that this certification course seemed to have so many parallels with my master's programme. After the presentation, I asked the course director about the connections between Implementation Science and Communication for Development. To my surprise, she had never heard of ComDev. After explaining a bit about what ComDev is, she told me they were entirely different disciplines and so it was understandable that they would not have any theoretical connections. After the course was complete, I started to do some research and found more and more evidence that the two disciplines were not, in fact, so different. I found they have many similarities: from their historical roots and theoretical underpinnings to their aims, tactics, contexts they work in and even shared several emerging issues in the fields. It was from this initial review of the literature out of curiosity that I undertook a larger, more systematic literature review in my methods paper in late 2015 and then enlarged my scope to further investigate this topic with the current paper.

When I first learned that an implementation scientist working on maternal-child health in Africa had never heard of ComDev, I was concerned that knowledge siloes were preventing the sharing of information across disciplines that could, ultimately, improve outcomes. I was also concerned that implementation theories and models, tested chiefly in the U.S. and Canada were being applied to countries in the global South without theoretical frameworks that build upon important thinking and work in the areas of development theory, post-colonial discourse, cultural studies, etc. Thus the work that I have done with this degree project has
been with the parallel aims of 1) illuminating the similarities, differences and crossovers between the fields of ComDev and IS and 2) identifying opportunities for each to benefit from work done within the other field.

**The Ties that Bind**

Over the course of my career, whether my work was called ‘marketing’, ‘communications’ or ‘knowledge translation’, my role has essentially been the same: to distil, decode and communicate complex information in a way that shares knowledge, changes attitudes and encourages behaviour change with the goal of improving lives. This kind of work is sometimes referred to as ‘closing the know-do gap’. (Booth, 2011; Bucknall, 2012; van den Driessen Mareeuw, Vaandrager, Klerkx, Naaldenberg, & Koelen, 2015) Depending on context and paradigm, you may also know this work as Diffusion (Stade, 2001), Diffusion of Innovations (Rogers, 1962), Directed Social Change (Melkote & Steeves, 2015), Strategic Communications, Social Marketing, Agricultural Extension, Health Communication (Lie & Servaes, 2015), Dissemination and Implementation Research (Brownson, Colditz, & Proctor, 2012), Communications and Social Change (Thomas, 2014), Knowledge Utilization, Technology Transfer, Evidence-Based Medicine (C. A. Estabrooks et al., 2008). Or, you may have an entirely different name for the process of using communication as a tool to improve lives.

In the field of health research, Knowledge Translation (KT) (also known as Knowledge Transfer, Knowledge Exchange, Knowledge Mobilization etc.) and the related research field, Implementation Science (IS) (also known as Dissemination and Implementation Research, Translational Research, Effectiveness Research, etc.), aim to shorten the time between scientific discovery and the uptake of new innovations, particularly in the field of health, with the ultimate goal of saving and improving lives.

The emergent field of implementation science, which differs from other forms of implementation research like population health intervention research and policy implementation research, has focused on the implementation of evidence-based
practiced in the context of clinical practice in higher-income countries. (Edwards, 2015; Nilsen, Ståhl, Roback, & Cairney, 2013) However, IS is increasingly being applied in development contexts in the global South. (Edwards, 2015; Weber, 2015)

In the field of development, the discipline of Communication for Development (ComDev) (with historical and academic derivatives known as development communication; communication for/and social change; media, communication and development; C4D etc.) arose out of a belief that communication could be used as a tool to close the perceived development gap between high- and low-income societies by improving the uptake of particular innovations from the so-called ‘developed’ world in the so-called ‘developing’ world. (McAnany, 2012)

While ComDev initially emerged from efforts at social change in the U.S., from quite early on in its history, the majority of theory and practice of ComDev has focused primarily on using communication as a tool for ‘modernization’, ‘development’, ‘social change’ or ‘social justice’ in the global South. (McAnany, 2012; Rogers, 2003)

While IS and ComDev share some theoretical history as well as similar aims, processes and methods—and IS is being increasingly applied towards sustainable development objectives in the global South—there has been limited knowledge exchange between these fields. Given the intersections between the two disciplines, I believe there is value in taking a deeper look at where the differences and similarities exist and what opportunities there may be to advance their common objectives.

**Theoretical Framework & Key Concepts**

My theoretical framework for this paper is informed by a convergence of perspectives from several fields of study; namely, Implementation and Dissemination Sciences, Communication Theory; and Development Discourses.
My framework draws from literature that has emerged from both the theory and practice within these fields and on their theoretical borders.

In addition to the key literature listed below, I have also drawn on literature from the domain of diffusion and dissemination theory and practice, which represents the historical tie that binds these two fields, including Everett Rogers’ *Diffusion of Innovations* (1962, 2003), Dearing (2008), Stade (2001) and Green et. al. (2009). In addition, I have also relied on theories and principles from interdisciplinarity and bibliometrics\(^1\) for guidance on defining, analysing and comparing academic disciplines. (Bammer, 2013; Biglan, 1973; Krishnan, 2009; Moed, 2006, 2009).

**Key Literature: Communication for Development**

The literature that has informed my theoretical framework as relates to Communication for Development, including its origins, characteristics, theories, focus areas, related disciplines and emerging issues, come out of both development theory generally as well as more specific, and often more recent, attempts to map the field of ComDev. The key works used include: Castells (2013); Hemer and Tufte (2005); Lie and Servaes (2015); Morris (2005); Obregon and Waisbord (2012); Pieterse (2010); Servaes (2008); Thomas (2014); Waisbord (2001, 2005, 2014, 2015); and Wilkens, Tufte and Obregon (2014).

**Key Literature: Implementation Science**

For literature specific to the evolution of Implementation Science, I will rely largely on the work of historical and theoretical overviews of the field outlined by Nilsen (2015; 2013), Brownson et al. (2012), Estabrooks et. al. (2008), Nilsen (2015; 2013), Edwards (2015) and Graham et. al. (2006) and Shaxson and Bielak (2012).

\(^1\) From *Qualitative and Quantitative Methods in Libraries*: "Bibliometrics, literally “the measurement of books”, is a term that was first used in the 1969 article by Pritchard, “Statistical Bibliography of Bibliometrics”. In the article, Pritchard defined bibliometrics as "the application of mathematics and statistical methods to books and other media of communication" in order to "shed light on the processes of written communication and of the nature and course of development of a discipline" (348-349)." (C. A. Estabrooks et al., 2008, p. 7)
**Key Concepts**

In this paper, I will be dealing with the theoretical and practical aspects of disciplines with contested boundaries and comparatively short histories; for this reason, it is important to begin with some working definitions of the main fields I will be investigating. These definitions will certainly not reflect consensus within their respective fields, but they will hopefully provide a framework and guide towards general understandings of what I am referring to when I use these terms.

**Diffusion Theory**

In searching for connections between IS and ComDev, the clearest and most obvious connection lies in their historical roots; both of which can be traced back to Everett Rogers’ elaboration of the *Diffusion of Innovations*. (Rogers, 1962)

It is important to understand that diffusion, as I mean it here, at a very basic level, refers to the diffusion of knowledge between people or groups of people. Diffusion, understood in this way, can be natural and/or intentional/directed.

From an anthropological point of view, “diffusion has been taken to be the process by which material and immaterial cultural and social forms spread in space.” (Stade, 2001) Theorizing around this process has gone through a number of stages, often with each emerging as a reaction to the last. Up until the late 19th century, the cultural history paradigm reined with the belief that different and seemingly disconnected cultures evolved similarly or developed similar technologies in parallel vacuums, thanks to our innate similarities as humans. (Stade, 2001) Following WWI, the dominant paradigm shifted towards one that saw interactions between individuals and governments as the primary way that information diffused across cultures and geographic boundaries. Eventually, anthropology, and specifically ethnography, began to take a more critical approach, which began to put a spotlight on the negative effects of cross-cultural diffusion; namely colonialism/cultural imperialism. (Stade, 2001)
From a social change viewpoint, Everett Rogers, who coined the term ‘diffusion of innovations’, defined diffusion as “the process in which an innovation is communicated through certain channels over time among the members of a social system.” (Rogers, 1962, 2003) Rogers has also defined diffusion as a kind of social change, “defined as the process by which alteration occurs in the structure and function of a social system. When new ideas are invented, diffused, and adopted or rejected, leading to certain consequences, social change occurs.” (2003, p. 6) Importantly, Rogers also defines diffusion in the context of communication as “a special type of communication in which the messages are about a new idea.” (2003, p. 6)

I will return to Everett Rogers and a more detailed examination of the history of diffusion when I examine the theoretical origins of IS and ComDev.

**Implementation Science**

The concept of ‘knowledge translation’ (KT) is the term used most often in Canada to refer to a number of approaches and processes, mainly in health research, to address the pressing need to speed up the transfer and implementation of the latest research findings into practice with the goal of saving and improving lives.

Knowledge translation is closely related to a number of other terms and processes, including knowledge management (KM), knowledge transfer, knowledge exchange (KE), Knowledge Translation and Exchange (KTE), Knowledge Brokering (KB), Knowledge Mobilization (KMb), Implementation and more. (Shaxson & Bielak, 2012) This collection of approaches has also been referred to with the umbrella term, K*, which is defined as:

“The collective term for the set of functions and processes at the various interfaces between knowledge, practice, industry and policy that improve the sharing of knowledge and its application, uptake and value in the pursuit of progress.” (Shaxson & Bielak, 2012, p. 25)

Research that studies the efficacy and effectiveness of KT or of implementation approaches is called ‘the science of KT’ or ‘Implementation Science’ (IS) (also
known as Dissemination and Implementation Science, Translational Research, T2 Research, Effectiveness Research, Dissemination Research, Implementation Research, etc.)(Rabin & Brownson, 2012) IS is a field of research that has been gaining momentum in the context of both high- and low-income countries in recent years.

While research investigating the processes and methods of successful implementation in various contexts is certainly not new, the field of IS, which situates itself within the context of clinical and population health interventions, is a relatively new field of research.

As a relatively new field of study, the scope and agreed-upon characteristics of IS are frequently undergoing adjustments. In a 2015 article by the editors of the disciplines principal peer-reviewed journal, *Implementation Science*, the editors addressed some of these issues by publishing a reappraisal of the journal's mission and scope (the second such article from the editors since the journal's inception in 2006) (Eccles, Foy, Sales, Wensing, & Mittman, 2012; Foy et al., 2015). The changes included a broadening of the journal's scope to include evidence-based population health (rather than just health-care practice).(Foy et al., 2015) This change in scope responded to, at least in part, calls for IS to acknowledge the importance of both policy implementation and population health intervention research as a critical facets of implementing sustainable changes across health systems. (Nilsen et al., 2013)

For the purposes of the journal's aim and scope, *Implementation Science* defines IS as “Research relevant to the scientific study of methods to promote the uptake of research findings into routine healthcare in clinical, organisational or policy contexts.” (Science, 2015)

In a 2015 article published in *Implementation Science*, Nilsen adds to this definition that:
“Implementation is part of a diffusion-dissemination-implementation continuum: diffusion is the passive, untargeted and unplanned spread of new practices; dissemination is the active spread of new practices to the target audience using planned strategies; and implementation is the process of putting to use or integrating new practices within a setting.” (Nilsen, 2015)

**Communication for Development**

It is difficult to find consensus from those working in what we call ‘development’ on what the term actually refers to. (McAnany, 2012) So it follows that a clear definition of Communication for Development would be equally difficult to come by. It has been my experience that contested terms do not usually lack consensus on general understandings; it is in the process of verbalizing them and giving them boundaries that definitions become contested. With that in mind, rather than providing one singular definition of ComDev, I will provide a few, which I believe will combine to provide an understanding that is greater than the sum of these parts. Note: emphasis in each added by me.

In 2002, Nora Quebral, the individual responsible for coining the term Development Communication, updated her original (1972) definition to the following:

> “The art and science of human communication linked to a society’s planned transformation, from a state of poverty to one of dynamic socio-economic growth, that makes for greater equity and the larger unfolding of individual potential.” (N. Quebral, 2002)

Silvio Waisbord defines Communication for Development and Social change as “the study and the practice of communication for the promotion of human development and social change.” (Waisbord, 2014, p. 148)

Somewhat more verbosely, Jan Servaes, states that:

> “All those involved in the analysis and application of communication for development and social change—or what can broadly be termed development communication’—would probably agree that in essence development communication is the sharing of knowledge aimed at reaching a consensus for action that takes into account the interests, needs and capacities of all concerned. It is thus a social process. Communication media are important tools in achieving this process but their
use is not an aim in itself—**interpersonal communication too must play a fundamental role.**” (Servaes, 2008, p. 15)

In the same volume as Waisbord, above, Pradip Ninan Thomas suggests the following:

> “Broadly speaking, development communication/communications and social change is about **understanding the role played by information, communication, and the media in directed and nondirected social change.** It also includes a variety of practical applications based on the mainstreaming of **communication as “process” and the leveraging of media technologies** in social change.” (Thomas, 2014, p. 7)

In Melkote and Steeves’ 2015 historical review of the field of development communication, they offer the following:

> “Our understanding of development communication (devcom) emerges from our view of **development as empowerment and communication as shared meaning.** It involves issues at all levels of consideration: the **grassroots, local, national, and global.**” (Melkote & Steeves, 2015)

It is also important to note that development theorists and practitioners often express discomfort with the term ‘development’ or ‘developing countries’ because these terms denote a hierarchy within a modernist paradigm, which assumes that some countries are developed while others are not and need to ‘catch up’. (Silver, 2015) In some circles of ComDev there have been attempts to rebrand as communication for social change (to distance from the concept of ‘development’) or as C4D (in contrast and as an alternative to ICT4D.)

**Goal and Objectives**

During the intro lecture for this Degree Project, Anders Høg Hansen pointed out that a piece frequently missing in ComDev degree projects is “Rethinking development in the so-called developed world.” I believe this is an important area of investigation and I hope my topic will contribute some relevant and interesting insights to this area. With this paper, I am interested in exploring the idea of development in the Global North and, in particular, what can be learned from development theories, activities and experiences from the global South.
I believe that, if ComDev wishes to truly move away from a modernist paradigm of development, it needs to do more work in areas beyond its typical geographic and academic borders. Rather than struggling to build walls around and define the discipline, how can ComDev expand its theoretical boundaries to learn from and inform disciplines with similar aims, like IS? This question becomes particularly pressing given the backdrop of the expanding theoretical and geographic boundaries of IS, which have, in recent years, increasingly begun to include social-change interventions in the Global South.

**Research Questions**

The overarching research question I aim to investigate is: How have communication methods and processes been studied in the context of social change in the Global South, how does this compare to work in the Global North in the field of IS and what lessons can be gleaned from each to advance the common goals of both?

**Methods**

To address the aims described above, I have conducted a review of key literature in the fields of ComDev and IS, including works in the fields of knowledge translation, mass communication, diffusion theory and population and public health intervention research to provide both historical context and a broader setting within which to situate my analysis.

In addition to a review of key literature, I have also completed a bibliometric co-citation analysis, comparing common citations to find links (or lack thereof) between and across the disciplines in question.

My literature review helped to inform a synthesis of the definitions, theoretical origins, key characteristics, uses of theory, related disciplines and emerging issues within each field. From the synthesis of this information, I have engaged in a narrative comparative analysis of the similarities, differences and opportunities for learning between the fields.
Significance and Limitations

One of the key themes of the 2030 Agenda for Sustainable Development is the importance of an integrated approach—one that spans the economic, social and environmental dimensions of sustainable development. This integrated approach acknowledges that “sustained systemic change cannot be achieved through single-sector goals and approaches,” and that “implementing the SDGs will require breaking down traditional silos for more cross-sectoral decision-making and solutions.” (Hazlewood, 2015) This emphasis on the importance of breaking down disciplinary boundaries to achieve more sustainable social change underlines the importance and timeliness of this paper’s aims.

The importance of breaking down disciplinary barriers is equally important to IS, as noted by Nilsen (2013), who points out that “Ultimately, a broad, multidisciplinary research enterprise is needed to realize the ambitions of improved implementation of research findings.” Furthermore, as I will discuss later in this paper, there have been a number of recent calls for IS to question its academic boundaries and seek out opportunities for greater impact by learning about what other, similar fields exist and what they may have to offer. (Bammer, 2013; Edwards, 2015)

I believe there are a number of specific characteristics, key ideas and debates within the fields of ComDev and IS that could provide opportunities for both to advance more rapidly, with greater impact. For example, as Edwards points out, because IS tends to be researcher-driven, adaptation and implementation fidelity continue to be ‘raging debates’ and context is seen to add ‘noise’ to experiments. (Edwards, 2015) ComDev theory and practice could contribute valuable experience and literature related to combined top-down and bottom-up approaches; the importance of both personal and contextual factors; and culture-centred approaches. (M. J. Dutta, 2015; Waisbord, 2005)

Implementation science could also provide valuable insight into key challenges in ComDev. For instance, IS methods could help guide rigorous comparative
effectiveness studies, which could be published more frequently and more broadly and help to inform best practices and innovations in both ComDev theory and practice—thereby also helping to address the know-do gap that exists within the field. (Hemer et al., 2005, p. 20)

**This paper also has important limitations to consider:**

Over the course of my research for this project, on numerous occasions I fell down the rabbit hole of communication theory, diffusion theory and development theory sub-fields. At this point, one lesson I feel confident in relaying is that the practices, processes and fields of theory and research that fall under the broad umbrella of ‘disciplines that use communication as a tool for improving lives’ are many, are diverse and addressing them in any sort of exhaustive way does not fit within the scope of the current paper. There have been several valiant efforts to map the diffusion, implementation and ComDev fields, for which I am grateful, as they have helped to inform my work. (C. A. Estabrooks et al., 2008; Lie & Servaes, 2015; Rabin & Brownson, 2012) However, none that I have found have made a direct connection between the fields of IS and ComDev, as I am attempting to do here. I believe that this gap is less a reflection of an oversight of the previous attempts and more evidence supporting how diverse and cross-cutting this umbrella is. With this paper, I hope to make a small contribution by adding a few more strings to the web.

Another limitation that I would like to acknowledge and highlight here is the fact that the history, origins and various characteristics of the ComDev field that I will cover here represent the majority viewpoint—but not the only one. Given that I am comparing and contrasting two disciplines, for the sake of brevity and clarity, the endeavour requires me to choose a perspective on each. Here, I simply wish to acknowledge that a choice took place and that it was a conscious one. I am aware of and have read a number of post-colonial critiques of the prevailing perspectives of the field—particularly those put forth by Line Manyozo and Mohan Dutta.(M. J. Dutta, 2015; U. Dutta, 2015; L. Manyozo, 2006, 2012) While these critiques
represent important discourse in and about ComDev, for the reasons cited above, they fall outside the scope of the current paper.

Furthermore, the fields being examined here have somewhat vague theoretical boundaries and deal with a number of contested terms and ideas at their core. These characteristics make the prospect of exhaustive literature reviews and definitive theoretical boundaries a relative impossibility, at least within the time and space constraints of the current work. That said, it was never my intention to provide a complete comparison between the fields being discussed; rather, my aim was to start a conversation by highlighting and contrasting a selection of key characteristics from each—my hope is that the selections I have made are representative.

2. METHODOLOGY

My approach to the readings, the format of my literature review and to my degree project generally has followed a Grounded Theory approach. (Glaser, Strauss, & Strutzel, 1968) The SAGE Handbook of Grounded Theory (Bryant & Charmaz) lays out Grounded Theory’s key components, as defined by Glaser and Strauss in Discovery (1968) as the following:

1. A spiral of cycles of data collection, coding, analysis, writing, design, theoretical categorization, and data collection.
2. The constant comparative analysis of cases with each other and to theoretical categories throughout each cycle.
3. A theoretical sampling process based upon categories developed from ongoing data analysis.
4. The size of sample is determined by the ‘theoretical saturation’ of categories rather than by the need for demographic ‘representativeness,’ or simply lack of ‘additional information’ from new cases.
5. The resulting theory is developed inductively from data rather than tested by data, although the developing theory is continuously refined and checked by data.
6. Codes emerge from data and are not imposed a priori upon it.
7. The substantive and/or formal theory outlined in the final report takes into account all the variations in the data and conditions associated with these
variations. The report is an analytical product rather than a purely descriptive account. Theory development is the goal.

A grounded-theory approach fits well with my degree project for two main reasons:

1. **Allows for uncertainty and facilitates learning:**
   Going into this project, I had some suspicion of what I might find, as is typical I think. However, I was also keenly aware that there was a lot that I did not know and so my approach was one of search and discovery rather than seeking to support a pre-defined hypothesis. Taking a grounded-theory approach to my readings and to my systematic review of the literature, allowed me to find evidence in places I might not have looked had I simply been looking to prove a particular thesis.

2. **Follows lessons-learned from some of my key findings:**
   One of the key challenges currently confronting IS is the importance of fidelity versus adaptation—meaning that IS research questions tend to be developed in a top-down, rigid way that do not allow for context-specific adaptation—an approach that can lead to project failure. Given this insight, I think it is fitting that my theoretical approach follows a more fluid methodology, which allows for learning and adapting along the way.

3. **SYSTEMATIC REVIEW: KNOWLEDGE SHARING BETWEEN FIELDS**

   **The Dangers of Silos**
   While IS and ComDev share some important commonalities, my personal experience in reading literature from each discipline has been that there is very little, cross-overs between them in terms of citing one another or key works from the other.

   In previous years, these knowledge silos would have been slightly more understandable given that IS and ComDev have tended to take place within
differing academic disciplines and contexts (health sciences versus development theory and practice). However, in recent years, IS has been gaining ground as a tool to help close the ‘know-do gap’ in global health. (Weber, 2015)

The contextual differences between these two disciplines are beginning to overlap and so it is important to break down the knowledge silos that exist between them to ensure that another know-do gap—between disciplines—is not formed. The risks of siloes in health knowledge presents huge threats and is known to be an ongoing challenge in the health-care field.

“The achievement of integration and collaboration among different providers of care is one of the foremost challenges facing today’s health care system. The theme of overcoming disciplinary, sectoral, and institutional “silos” is echoed in almost every area of health-services research, from primary-care reform to patient safety, chronic-disease management to cost containment (e.g., Clancy 2006; Mann 2005; McDonald et al. 2007).” (Kreindler, Dowd, Dana Star, & Gottschalk, 2012)

Besides concerns regarding ‘reinventing the wheel’, knowledge silos between IS and ComDev or, more broadly, between health and development research and practice, also present certain concerns regarding theoretical gaps. Implementation science as a discipline prides itself on privileging context. However, working in the Global South is a complex environment that arguably goes beyond the kind of contexts that IS was made to work within. In a post on IS in Global Health, blogger, Sarah Weber, rightly points out that:

“For the developing world, the know-do gap has widened, as there is the added challenge of how to best implement evidence-based solutions, without utilizing strategies developed from high income countries with sophisticated health systems. This is difficult and requires modifications based on the local context and resources.” (Weber, 2015)

Weber believes that IS can provide an approach that is adequately context-appropriate, which may or may not be true. However, I would argue that it depends on who is involved in the study design and implementation and what knowledge they have regarding development histories, theories and practices.
In order to test and further explore this hypothesis, I conducted a bibliometric co-citation analysis of the fields of Communication for Development and Implementation Science.

**Bibliometric Analysis**

Bibliometric analysis, or bibliometrics, is a method of comparing published academic literature using citation data. Co-citation analysis, a form of bibliometrics, is a method that can be used to evaluate the significance of a publication or author by looking at how often and where particular works are cited. Co-citation analysis can also be used to map the history and current state of a field or to detect emerging research topics. (C. A. Estabrooks et al., 2008; Glänzel, 2012)

There have been a number of arguments made to support the use and usefulness of bibliometric analyses, including co-citation maps and other forms of citation analyses, as “powerful tools for mapping the intellectual structure of a field over time” as I intend to do here; many of which can be found in Estabrooks et. al. (2008, p. 3),

Using bibliometric analysis techniques and tools, I intend to investigate the following questions:

- Do IS and ComDev share any top-cited authors or publications?
- Is there evidence of co-authoring between the two disciplines?
- Is there evidence of co-citations across the disciplines?
- Are there authors who straddle the two fields?

Returning again to my grounded theory approach, I expect these questions to evolve over the course of the bibliometric analysis process.

**Methods**

Choice of Sources

To obtain the data required to conduct a bibliometric analysis, I needed access a database that has both a good coverage of the fields I am interested in (in terms of
publications included) and has the ability to export this data in a format that can be analysed.

The top three databases used for bibliometric analysis include Web of Science (Reuter, 2012), Scopus (Elsevier, 2014) and Google Scholar. While Google Scholar has very good coverage, a wide range of sources and provides metrics on a great number of journals, it lacks the ability to export batches of bibliometric data and does not include robust advanced search capabilities, so it was eliminated. As Aghaei Chadegani et. al. point out in their comparison of Web of Science and Scopus, these two tools are expensive and not everyone has access to both. Luckily, through the University of Malmö Library, I have access to both and so had the privilege of being able to choose between them (2013).

From reviewing both the Scopus and Web of Science websites, I was given the impression that Scopus prioritizes breadth of inclusion in its database, while Web of Science prioritizes high impact of content. However, the inclusion of publications in Web of Science goes back further than that of Scopus, perhaps because Scopus is a newer tool on the market. For my purposes, breadth is more important than high impact because I wish to see connections between authors and draw my own conclusions about impact within disciplines from that information.

To test the coverage of both databases, I searched each for the inclusion of records from three of the top journals I intend to use in my bibliometric analysis. The results are included in the following table:
<table>
<thead>
<tr>
<th>Search Criteria (2006-2016)</th>
<th>Web of Science (# of results)</th>
<th>Scopus (# of results)</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication name= “Implementation Science”</td>
<td>1,118</td>
<td>1,131</td>
<td>Scopus</td>
</tr>
<tr>
<td>Publication name= “International Communication Gazette”</td>
<td>137</td>
<td>387</td>
<td>Scopus</td>
</tr>
<tr>
<td>Publication name= ”Development in Practice”</td>
<td>138</td>
<td>911</td>
<td>Scopus</td>
</tr>
<tr>
<td>Publication name= ”Journal of Communication”</td>
<td>707</td>
<td>535</td>
<td>Web of Science</td>
</tr>
<tr>
<td>Publication name= ”Communication Theory”</td>
<td>249</td>
<td>250</td>
<td>Scopus</td>
</tr>
</tbody>
</table>

Table 1: Comparison of Scopus and Web of Science

Given the above information and the scope and objectives of my bibliometric analysis, it seems that Scopus is the better choice for my needs. I should note that it is worth noting that I could have used both databases; however, given that Scopus has a clear advantage in two of the three journals and is nearly the same for the Implementation Science journal, I have decided to use Scopus exclusively for the sake of both simplicity and consistency. In addition, using both databases would have made it more complicated to combine two different data extractions and ensure they were both equally compatible with my co-citation mapping software.

**Search Terms & Journal Selections**

The basic unit of analysis I will be using are articles published in peer-reviewed journals. I have limited my search to peer-reviewed journal articles to ensure consistency in the type and format of the data and to reduce duplicate information.

At this stage in my approach, I needed a list of core journals from which I could pull articles and bibliometric data. For the field of IS, this is a simple endeavour
because the journal *Implementation Science*, which has been in publication since 2006, is the core publication for the field and has an impact factor of 4.122.

The process of determining journals for communication for development was slightly more complex given that the field does not have one core journal devoted ComDev specifically. ComDev-related articles tend to appear across a variety of different publications from development and social change to communication theory and mass communications journals. In order to extract a representative sample, I had to develop a list of several journals to act as core publications.

Given that I am looking to find connections between disciplines, and core publications within the ComDev field, I chose to use keywords that identified the discipline by name rather than by content. For instance, in their review of the state of development communication research, Ogan et. al. used search terms such as “globalization”, “governance”, “transition”, and “education” within a mass communication database. (Ogan et al., 2009, p. 659) In contrast to this approach, my initial search criteria included a list of terms drawn primarily from the list of thematic sub-disciplines identified by Lie and Servaes (2015) in their article *Disciplines in the Field of Communication for Development and Social Change*.

- “communication for development”
- “development communication”
- “communication for social change”
- “knowledge for development”

A search of all text using the above search terms as exact phrases and limiting to articles and to publication dates in or after 2006 (the year *Implementation Science* was first published) yielded 3,632 results. I then began reviewing and reviewing my results to find the most relevant publications. [See Appendix 2 for a complete list of all my exact search queries.]

I then conducted an analysis of the journals to determine which were most relevant and likely to represent a core sample of peer-reviewed publications related to ComDev. I wanted the journals in my selection to be of high quality and also have a
good quantity of records to feed my analysis. Evaluating journal quality and influence is a science in and of itself, with many differing opinions on relevant metrics and methodologies. (Kostoff, 1998; Moed, 2006, 2009) In addition, not all journals are rated by all indices, particularly when they do not represent the same academic disciplines. Furthermore, even if journals have the same kind of rating scale applied to them, scales may favour one discipline over another depending on what they measure—so they may not provide an apples-to-apples comparison. (Althouse, West, Bergstrom, & Bergstrom, 2009)

For the reasons cited above and because I was looking for a combination of quality and quantity, I decided to gather data from a few different journal ranking systems to see if, together, they might provide some clarity on how to narrow the journal list. I recorded ranking information from a number of sources in an excel document alongside the number of records that came up in my keyword search. In addition to the various indicators, I also included rankings from ScImago, which has ranked lists of journals within particular categories.

I colour coded the data in each ranking indicator column: top quartile in dark green, second quartile in light green and the rest with no colour. This colour-coding helped me to quickly and easily see patterns of quality and quantity by looking for the journals with the most dark green: including the quantity of records. From this analysis and a scan of the reference list for this paper to find anything significant that may have been missed by the keyword search, I came to my final list of core journals²:

1. Journal of international communication
2. Journal of communication
3. Communication Theory
4. Media, Culture and society
5. Development in Practice

² The colour-coded tables, which include the initial and final lists of journals, can be found in Appendix 3.
6. International Communication Gazette
7. Howard journal of communications
8. Critical Arts: South-North Cultural and Media Studies
9. Communicatio
10. Journal of creative communications
11. Journal of multicultural discourses
12. Ecquid Novi
13. Telematics and Informatics
14. Information Technology for Development

Once the journal list was narrowed down, I developed a keyword list that would allow me to pull records from those journals to represent peer-reviewed ComDev literature between 2006 and 2016. The list included combinations of terms including development, communication, social change, globalization, gender, aid, peacebuilding, participatory, media, etc. This search yielded 1,242 results. (The full search terms list can be found in Appendix 2, Search #4)

Results

Once I had my data from Scopus (1,242 for ComDev and 990 for Implementation Science), I plugged it into a program called VOSviewer (van Eck & Waltman, 2010). VOSviewer can use multiple combinations of citation information, including references, to create a graphical representation of a bibliographic network map.

I chose to create a co-citation map that looked at how often the same references were cited across various articles. Common references are represented using circles. VOSviewer uses an algorithm to determine the size of those circles, distance between them and colour in order to communicate various information about the network. There is also the choice to add lines between connections in order to see exactly what those connections are.

VOSviewer does not label its clusters or provide a key to its colour-codes; so I have added my own labels to the network map below. My labels are based on a closer examination of the references included in each grouping, which I am able to do within the program.
Figure 1: Co-Citation Map (Unit of Analysis = Shared References)
As you can see from the co-citation map above, there is not a lot of crossover happening between the fields or sub-fields of ComDev and IS.

To further explore this observation, I built a new map, using different data. This time, I used a few of the overview articles I’ve read for my literature review. These articles tend to cover either broad historical roots or related disciplines in the fields, so I expected that their references would lie much more on the borders of their respective fields.

I chose the following articles for this map:

- Disciplines in the Field of Communication for Development and Social Change (Lie & Servaes, 2015)
- Place and role of development communication in directed social change: a review (Melkote & Steeves, 2015)
- Historical Roots of Dissemination and Implementation Science (Brownson et al., 2012)
- Lost in knowledge translation: time for a map? (Graham et al., 2006)

As you can see from Figure 2, below, even going back to the historical roots of the fields does not provide much cross over in terms of what is referenced in current literature. The only clear and undeniable connection, as mentioned earlier, is Rogers’ *Diffusion of Innovations*. 
Figure 2: Historical Roots & Disciplines Map (ComDev, Implementation Science, Knowledge Translation)
4. LITERATURE REVIEW & EXISTING RESEARCH

Examples of Academic Discipline Comparisons

My review of the literature has yielded very few examples of cross-disciplinary comparisons of the sort I am currently attempting. However, I did find two examples, which, luckily, happen to deal with IS specifically. Nilsen et. al. have published *Never the twain shall meet?, a comparison of implementation science and policy implementation research* (2013) and Dr. Nancy Edwards gave a presentation at the University of Montréal—the video and presentation slides of which are posted online—entitled *Implementation Science and Population Health Intervention Research: Exploring Intersections and the Way Forward*. (2015) Both of these analyses provide useful examples of how to go about comparing two fields and what, specifically, to compare within each.

Nilsen approaches his comparative analysis with the support of a narrative review of selected literature in the fields of IS and policy implementation research. In a description of methods, Nilsen provides a list of the key sources used from each field. (2013, p. 2) In the comparative analysis section of the article, the authors identify five key aspects of the two fields for comparison:

1. Purpose and origins;
2. Characteristics;
3. Development and use of theory;
4. Determinants of change; and
5. Implementation impact. (Nilsen et al., 2013, p. 4)

The subsequent narrative analysis appraises the two fields adhering to a ‘point-by-point’³ format following the list above. The authors then provide a summary of key differences and provide suggestions for relevant areas of policy implementation research that could provide lessons for IS.

³ According to Walk (Katsirikou, 2013, p. 1), there are two ways of organizing a comparative analysis: “In text-by-text, you discuss all of A, then all of B. In point-by-point, you alternate points about A with comparable points about B.”
In her presentation comparing IS with Population Health Intervention Research (PHIR), Edwards puts forth four areas where she believes the intersections between the two fields are important to consider:

1. Intervention designs;
2. Outcomes;
3. Context; and
4. Scale-up.

Like Nilsen, Edwards uses a point-by-point format, and follows these four areas of comparison with some suggestions for a forward research agenda. (Edwards, 2015)

I believe that Nilsen’s and Edwards’ both chose well in employing a point-by-point format for their comparative analyses because it makes it easy for the reader (or viewer) to identify contrasting features. However, I will be providing a much more detailed account of both fields and so I believe that a text-by-text approach will do a better job of painting a clear picture of each field. My text-by-text review will be followed later by an analysis of the fields’ similarities, differences and opportunities for learning.

Concept Mapping the Family Tree

The key aspects that I chose to focus on emerged from my readings of the literature, following a grounded theory approach. I used a cloud-based mapping program called “RealTime Board”\(^4\) to record and code the various concepts and characteristics related to each field and their respective subfields, as they emerged from my readings.

“Concept maps are tools for organizing and representing knowledge.” (Novak, 1995, p. 229) Some key characteristics of concept maps, according to Novak—who coined the term—include visual representations of: relationships between

\(^4\) See: https://realtimeboard.com/app/
concepts; hierarchy of concepts—from general to specific; cross-links between concepts in different domains. (1995)

While concept maps are generally used as tools to visualize existing knowledge, Researchers in the field of education have shown that they can also be used as “an aid to analyze qualitative research data, specifically within the grounded theory method.” (Kozminsky, Nathan, & Kozminsky, 2008)

“Creating a concept map facilitated our ability, as researchers, to internalize the new information; to deepen our understanding of the emerging themes; and it enabled us to look for the interrelations among those themes towards building a model. This process guided us to make inferences, beyond those articulated on the surface.” (Kozminsky et al., 2008, p. 6)

I tried out various templates available through RealTime Board and eventually settled on one based around the idea of sticky notes on a whiteboard. Initially, I used different frames to code my data: I had boards labeled ‘genealogies’ where I placed different fields and sub-fields based on where they appeared to have emerged from historically. I later added audience and focus area boards as that information began to arise. Admittedly, at one point I nearly abandoned the mapping exercise altogether because I was running into the challenge of characteristics that could be coded as more than one thing. Diffusion of Innovations, for instance, could be seen as an approach or paradigm and historical roots. Thankfully, RealTime Board came out with an update that allowed users to tag items with multiple tags.5 Rather than using lines to show connections between concepts, as is the norm in concept mapping, I used colour-coded tags. The board can also be searched by keywords and tags, which highlights everywhere where a particular term appears—also facilitating the visualization of connections. (See Appendix 1 for a sample from this concept map.)

5 My board, which is an ongoing process document (i.e. not meant to be ‘final’) can be viewed at the following link: https://realtimeboard.com/app/board/o9J_k1cWI_Q=/
The key ‘tags’ that emerged through this process, which I found yielded the most interesting and pertinent information for comparing IS and ComDev, are the following:

1. Theoretical Origins and Core Features (blue tags)
   - Historical Roots
   - Key thinkers
   - Key organizations or groups
   - Focus Areas or Objectives
2. Practical Characteristics (purple tags)
   - Audience
   - Channels
   - Barriers and Enablers to Success
   - Context
   - Intervention Types
3. Theory (red tags)
   - Key Ideas & Issues
   - Paradigms, Approaches
   - Emerging Issues
   - Frameworks
4. Family Tree
   - Related to
   - Branch
   - Sub-field/Discipline
   - Parent Theory

Following from the above list and having compared it against Nilsen’s and Edwards’ categories, I will use the following comparators for my own analysis:

1. Theoretical Origins
2. Characteristics
3. Use of Theory
4. Related Disciplines
5. Emerging Issues
Approach to Literature Review of the Fields

My research has been primarily desk-based and the data I have gathered has come from a systematic review of the literature. For these reasons, I have taken some guidance on the use of Grounded Theory from the *Grounded Theory Literature-Review Method* set forth by Wolfswinkel et. al. in 2013. The authors assert that grounded theory is a valuable tool in approaching a literature review because it allows the researcher to follow unanticipated paths, which arise from the review process.

“Grounded Theory’s hallmark is its inductive nature, that is, it lets the salient concepts arise from the literature. Grounded Theory enables the key concepts to surface, instead of being deductively derived beforehand; they emerge during the analytical process of substantive inquiry.” (Wolfswinkel, Furtmueller, & Wilderom, 2013, p. 46)

While I did not follow the five-stepped method described by Wolfswinkel, et. al., in as systematic a way as they recommend, my methods followed a similar process and had the same underlying aims: to allow key concepts to emerge from the literature rather than being pre-defined.

Communication for Development and Social Change

*Theoretical Origins*

In *Saving the World: A Brief History of Communication for Development* (2012) McAnany asserts that “there is almost universal agreement” that ComDev emerged primarily out of the work of three key scholars: Daniel Lerner’s *The Passing of Traditional Society: Modernizing the Middle East* (1958); Everett Rogers’ *Diffusion of Innovations* (1962), and Wilbur Schramm’s *Mass Media and National Development: The Role of Information in Developing Countries* (1964). McAnany acknowledges that current scholars may not see the relevance of these books to current work in the field, but argues that understanding origins of the field provides a deeper understanding of current practice.(McAnany, 2012, p. 9)

McAnany situates the beginnings of ComDev’s history somewhere in the beginning of the Cold War—even going so far as to suggest that the modernizing paradigm
may have begun in earnest on January 20, 1949, when then-U.S. President Truman gave his State of the Union address, in which he articulated a cold-war strategy that included the need to help ‘modernize’ developing countries and win them to the side of the U.S. (McAnany, 2012)

Lerner’s modernization theory, as outlined in his 1958 book, was a key contributor to the modernization paradigm. The other major influence it had was in tying the emerging field of mass communication to the idea of ‘the passing of traditional society.’ (McAnany, 2012)

Like Lerner, Everett Rogers also helped to make explicit the potential for connecting communication and development. However, while Lerner’s work was theoretically and historically based in the evidence of wartime propaganda, Rogers, a rural sociologist, took his cues from agricultural extension, which emerged in the 19th century Irish potato famine when field level government workers, often working with trusted “hedgerow priests” of the local Catholic Church, provided agricultural and social information to impoverished farmers and rural communities. As Estabrooks et. al. point out, “Rogers credited the Ryan and Gross classical agricultural study on hybrid corn as creating the template for classical diffusion theory for 40 years.” (2008) Rogers’ approach also gained ground and earned legitimacy given that it was heavily based in on-the-ground application with farmers in Columbia and research showing the impact of communication on technology adoption and yield productivity.

Schramm’s contribution differed from the other two in that his book was directed at the US policy makers and the governments of developing countries, in which he put the onus for development squarely in the hands of local and international governments. His contribution to the field also had significant impact given the book was co-published, translated into multiple languages and disseminated by UNESCO, which, at the time, had connections in 130 countries. (McAnany, 2012)
McAnany contends that the important role played by these three authors can be distilled down to the fact that they were the first to connect “communication’s influence and its potential for promoting growth and change in societies.” (2012, p. 27)

Many authors have suggested names and dates for phases that followed, and tried to usurp, the modernization paradigm in development. Of course, the dates can never be exact and paradigms do not shift quickly so each could probably be given a caveat of ‘give or take a decade or two.’ That said, for the sake of brevity and clarity, I offer McAnany’s suggestion that historical ComDev paradigms loosely followed the following timeline:

- 1950s-1970s: Modernization-diffusion
- 1970-mid 1980s: Critical dependency paradigm
- Mid-1980s-early 2000s: Participatory approach (2012, p. 87)

Following the modernization paradigm, which conceived of development as an information gap and communication as one-way diffusion tool to close it, the “critical and structuralist” or “dependency” phase arose as a response to and critique of thinking at the time. (L. P. Manyozo, 2008; McAnany, 2012) The key thinkers who contributed to the development of this paradigm shift, were mainly from Latin America and, according to McAnany, included Paulo Freire, Andre Gunder Frank, Armand Mattelart and Antonio Pasquali, among others. (McAnany, 2012, pp. 67-68)

This second phase of development and development communication thinking was marked by two main ideas: 1) that, rather than foreign investment leading to greater ‘development’ in lower-income countries, as the modernization paradigm assumed, world trade actually perpetuated underdevelopment and dependency; and 2) the idea that development communication could and should be a two-way street, with interpersonal communication at its base, rather than simple one-way information transfer—allowing for greater self-awareness of oppressive structures and exchange of power. (McAnany, 2012, pp. 67-68)
Another paradigm began to emerge in development generally and ComDev specifically—overlapping with the dependency paradigm and (and perhaps also modernization). The idea was that the participation of ‘target audiences’ or ‘beneficiaries’ is a necessary component for the success of social change communications and interventions.

This participatory paradigm emerged initially from the work of a number of different theorists, who came to it from different perspectives, including: Paulo Freire’s work around conscientization and as a pedagogical method for empowerment; Frank Gerace’s theories of communication as originating from feedback and an emphasis on technology as a tool of democracy and liberation; and Erskine Childers formulation of Development Support Communication (DSC), which emerged from his belief that development projects fail because they miss opportunities to engage with those who are meant to benefit from them. (McAnany, 2012)

The actual, self-aware realization of the participatory paradigm didn’t come until well after the work of the three key thinkers above. In 1985, Thomas Jacobson described the new turn in thinking as follows:

“The new paradigm places a high value on national self-reliance, local participation, and overall reduced dependence on the industrialized countries. The paradigm also places a higher priority on the preservation, or at least awareness, of cultural values.” (Jacobson, 1985)

It is important to remember that the evolution of ComDev is overlaid by the evolution of development discourse and of the social sciences more generally. In this way, the participatory paradigm emerged against a backdrop of the ‘Cultural Turn’ in development discourse and the social sciences. (Hemer et al., 2005)

Nederveen Pieterse points out that, while the cultural turn came about as part of a rejection of the “the old paradigm of modernization/westernization”, “Culture has been part of development thinking all along, though not explicitly so.” (Pieterse, 2010, pp. 64, 71) Mohan Dutta describes the role of culture previous to the cultural turn as “as passive placeholder of backward traits of traditionalism and as a relic of
the past, (which) was targeted through communication interventions. (M. J. Dutta, 2015, p. 126) While Pieterse goes on to problematize various aspects of culture and development (C&D) discourse, including its tendency to over-simplify (“add culture and stir”), he does acknowledge that it is an improvement over how culture had been previously perceived in development.

“Recognizing development practices as culturally biased and specific introduces cultural reflexivity, which of course forms part of a broader tide of awareness of cultural difference.” (Pieterse, 2010, p. 72)

Getting back to the history of ComDev specifically, what comes after the participatory paradigm? While a number of authors have made suggestions about what a early millennial and post-2015 ComDev paradigm might look like, we may still be too close to say if the participatory paradigm has passed, morphed into something else or been replaced. (U. Dutta, 2015; McAnany, 2012; Waisbord, 2005) For his part, McAnany suggests that a shift towards social entrepreneurship has marked development discourse in the beginning of the new millennium. (2012, p. 106) I would argue that ComDev in the early 2000s has also been marked by a fury of work around ICTs, which indeed gave birth to the sub-discipline of ICT4D, followed by a flurry of critiques and cautions about putting all our hopes in one basket. As McAnany points out “Enthusiasm for quick solutions is part of human nature, but institutions suffer the same kinds of illusion as do individuals who have aspiration for change.” (2012, p. 41)

As for what comes next, I will aim to provide some indications later on when I look at emerging issues in the field.

**Characteristics**

In Hemer and Tufte (2005) Silvio Waisbord (Chapter 4) points out that, while it is difficult to get consensus on a unified definition, there is relative consensus on a few key ideas around the theory and practice of development communication:

1. the centrality of power;
2. the integration of top-down and bottom-up approaches;
3. the need to use a communication ‘tool-kit’ approach;
4. the articulation of interpersonal and mass communication; and
5. and the incorporation of personal and contextual factors.” (2005)

I believe that the above list, while more than a decade old at the time of this writing, has stood the test of time and supports much of the more current writing on the topic that I have encountered. That said, I would like to propose one addition to Waisbord’s list, which may be somewhat aspirational than entirely reflective of the current reality; however, I believe it is and needs to be central to ComDev theory and practice:

6. the privileging of different sources and types of knowledge.

**Centrality of Power**

As development discourse began to move away from the modernization paradigm, the idea that power was a central theme that could inhibit or enable project success and, more broadly, must be included in thinking about development theory and practice as an ethical imperative, became central. (Baaz, 2005; Castells, 2013; McEwan, 2008)

Theorizing around the centrality of power runs to the heart of current ComDev thinking in that it permeates every aspect of the field: from who is funding projects to who has decision-making power, what knowledge is valued, which interventions are acceptable, who decides what project success looks like and who writes the story and represents that success. Dipesh Chakrabarty (2002) puts the issue of power succinctly when he asserts that:

“For a dialogue can be genuinely open only under one condition: that no party puts itself in a position where it can unilaterally decide the final outcomes of the conversation. This never happens between the modern and the nonmodern because, however noncoercive the conversation between the transcendent academic observer and the subaltern who enters into a historical dialogue with him, this dialogue takes place within a field of possibilities that is already structured from the very beginning in favor of certain outcomes. (Chakrabarty, 2002, p. 34)
Top-Down and Bottom-Up Approaches

In the early days of diffusion and ComDev, voices like those of Schramm pushed for a top-down approach to development that put the onus for development in the hands of local governments and perhaps also international governments to support them in their modernizing endeavours. A belief in market-led, trickle-down economics and the power of an unregulated free-market emerged in the 1980s in parallel to other paradigms of the time. (Pieterse, 2010) Both of these approaches were born, among other things, of a belief that poverty could be eliminated from the top-down and were wildly unsuccessful. (Waisbord, 2005)

In response to top-down approaches, the pendulum swung to the opposite extreme; favouring community-led approaches. While this change was extremely positive, we must not forget the important role of governments at all levels in ensuring the success and sustainability of social change endeavours. (Waisbord, 2005)

The Toolkit Approach

A toolkit approach to the practice of ComDev is a way of recognizing the need for proven best-practices while also acknowledging the central importance of context in the development and implementation of interventions. While ComDev has, for instance, intentionally distanced itself from diffusion-style communication methods, as Waisbord points out, “conventional educational and media interventions might e recommended in critical situations such as epidemics, when a large number of people need to be reached in a short period of time. (2005, p. 80)

A number of such toolkits exist with more being developed all the time, primarily by organizations and UN agencies engaged in the practice of development communication. (FAO, 2011, 2014; Mefalopulos, 2008; UNICEF, 2016)

Interpersonal and mass communication

While participatory methods that include interpersonal communication and the activation of networks are the best way to achieve social change, mass media
communication still has a place as a disseminator of information that can ‘activate’ those networks. Many theorists have pointed out that ComDev is split between the diffusionist and the participatory paradigms; however, it is important to consider how diffusionist and participatory methods can work together as multi-channelled campaigns to achieve change. (Lie & Servaes, 2015; Waisbord, 2005, 2014)

**Incorporation of personal and contextual factors**

As development discourse has moved away from paradigms that lay blame exclusively at the feet of individuals or governments for social challenges, the new task is to look at multiple contextual factors that work together to create barriers or enablers to change. “Further examination of the relations between individual behavior and contextual factors (such as policy, law, systems) is necessary. (Waisbord, 2005)

**Privileging of different sources and types of knowledge**

In the February 2006 issue of *Glocal Times*, Nora Quebra begins an article on the necessary characteristics of ComDev curriculum with a statement on the place for different types of knowledge in Development Communication:

> “Reciprocity of thought is the very essence of communication, and its practice is central to genuine human development. Development communicators would not be true to a principle of their profession were they to insulate themselves and other from give-and-take with other minds. Development communication would not stay development communication were it cut off from ideas coming from various sources and disciplines—and by which it is nourished.” (N. C. Quebral, 2006)

I would like to suggest four areas in ComDev where diverse sources and types of knowledge have been, or perhaps should more often, be sought, valued and integrated into the discourse and practice of the field:

1. Knowledge that emerges from both practice and scholarship, both practitioners and researchers;
2. Knowledge from a variety of fields and disciplines; and
3. Knowledge kinds of knowledge from all participant positions.
1. Knowledge from both practice and scholarship
The history of ComDev is made up of a rich duality of knowledge that comes from both theory and practice. And, as Hemer and Tufte (2005) point out, there is valuable knowledge being created and collected, in both research and practice, which could benefit the field of ComDev as a whole. However, this knowledge is not being shared and incorporated as broadly as it should be; which could mean valuable opportunities are being missed. I agree with their assertion that “This missing link must be challenged.” (p. 20)

2. Knowledge from a variety of fields and disciplines
ComDev is by its very nature and history interdisciplinary. It draws upon theoretical roots in communication and development theories and the work of ComDev takes place with humans, in complex contexts, which necessarily calls for a diversity of experience and paradigms to “adequately consider the multiple levels that affect individual and social behaviour.” (Waisbord, 2005, p. 82)

Lie and Servaes (2015) submit that there is a need for transdisciplinarity and they argue that we must “reorder the relationships between academics, communication professionals…technical field specific professionals…policy makers…civil society members…and local people.” And that “linkages and dialogues need improvement.” (p.253. Emphasis in original.)

3. Knowledge kinds of knowledge from all participant positions
A 2012 concept paper on various knowledge exchange disciplines has offered the following definition of knowledge:

“There are many competing definitions of the word ‘knowledge’. In this paper we use ‘knowledge’ to include both explicit (codified, factual) information and tacit understandings of what that information means and how it can be used. Knowledge can be about both content and process, and can be held individually or communally.”(Shaxson & Bielak, 2012, p. 2)

The cultural turn and the participatory paradigm denote a valuing of knowledge from various participant positions: so—not just the funder or researcher but also
those who are meant to benefit from interventions. However, a critical approach must be applied to considering how much value is placed on all types and sources knowledge at all stages of a project.

ComDev deals in various kinds of knowledge from various places and people, who do not always have the same power to share that knowledge, have it heard or valued at the same level as other sources and types of knowledge. So, we must always be asking, at every stage: ‘whose knowledge is being exchanged?’, ‘whose knowledge is valued and to what extent?’ ‘who has the power to produce and disseminate knowledge about the work?’ and ‘what types of knowledge are valued?’ These questions have permeated much of ComDev discourse. I believe a greater effort needs to be made to examine how knowledge is conceived of and used by applying a lens of power in a central way across the field.

Use of Theory

According to Silvio Waisbord in his 2001 report for the Rockefeller Foundation on theories, methodologies and strategies in ComDev, “Theory refers to sets of concepts and propositions that articulate relations among variables to explain and predict situations and results.” (2001) In the 2015 article, Three Challenges for Communication and Global Social Change, Waisbord points out that “Because the field has historically straddled academia and the aid industry, theoretical debates and programmatic directions were symptomatic of shifts in both settings.” (Waisbord, 2015)

While both theorists and practitioners in ComDev would likely situate themselves within some kind of development discourse that, to some extent or another, includes ideas of post-colonialism, cultural studies and mass communications, the extent to which these notions affect ones’ day-to-day work likely differs immensely depending on which side of the theory-practice line you most identify with.
The problem of the know-do gap, then, exists in ComDev as a field and not just in its theoretical underpinnings as a discipline within knowledge mobilization. As Hemer and Tufte point out,

“Recent theoretical and methodological developments in the broad field of communication research—and not least audience research—have still been incorporated on only a very limited scale into current practices in communication for development. This missing link must be challenged. There also exists a wide range of successful practices that deserve attention for feeding back into academic reflection in the field.” (2005, p. 20)

In terms of the theories guiding actual practice in the field, regardless of the paradigm we currently find ourselves in, theoretically, ComDev practice tends to follow either a diffusion theory approach or a participatory approach. The use of diffusion is not necessarily a negative thing, as I pointed out earlier, given that a toolkit approach sometimes calls for that particular tool. Indeed, as Wilkins points out, communication for development and communication about development “are not mutually exclusive endeavors: ongoing critique and research engaged through communicating about development should contribute to improving strategies for communicating for social change.” (Wilkins, 2015, p. 118)

However, the challenge arises when the chosen tool responds more to the organizational requirements of the funder rather than the requirements dictated by the context. Servaes asserts that “UN agencies deploy different elements of communication strategies because they adhere to different mandates, objectives and methods….As most often no proper ontological or epistemological assumptions are considered, many approaches contain references to both diffusionist and participatory perspectives in obvious contradictory and illogical ways.” (Servaes, 2007, p. 489) On this issue, Waisbord provides the following suggestion for the way forward:

“Aid communication scholarship needs to engage with actors responsible for key programmatic decisions and funding across global aid… It is necessary to customize tactics in a fragmented institutional landscape dotted with public, private, philanthropic, and civic initiatives (Richey & Ponte, 2014), and
adjust actions to particular opportunities as well as the organizational missions and cultures across aid actors.” (Waisbord, 2015)

**Related Disciplines**

In 2015, Rico Lie and Jan Servaes published an overview of *Disciplines in the Field of Communication for Development and Social Change*. As I have found in my own research, any attempt to map a field must necessarily begin with boundaries that define what is in and what is out when it comes to the family tree. Lie and Servaes, for their purposes in this article, define the boundaries of the subdisciplines they discuss as “more or less established within the discipline of communication science and have at the same time established a community of interest within the field of Communication for Development and Social Change.” (Lie & Servaes, 2015, pp. 244-245) They also make a distinction between nonthematic and thematic subdisciplines; where *nonthematic* refers to those within the field of communication science (i.e. take a particular communications approach to issues) and *thematic* refers to those that “cover a life science theme in the development sector,” (i.e. aim to address a particular issue.)

Lie and Servaes offer the following list of non-thematic subdisciplines:

- Strategic communication
- Participatory communication
- Crisis communication
- Risk communication
- Development journalism
- International communication
- Online media
- Internet studies

They also note that two potentially-related disciplines fell outside of their scope because they have not engaged with development communication in any significant way: political communication and intercultural communication.

The thematic subdisciplines covered in this article include

- health communication
- agricultural extension and rural communication
- environmental communication (including climate change communication)

From my review of the literature, I would suggest three additional subdisciplines, which I believe meet the criteria:

- Social Marketing
- ICT4D (Information and Communication Technologies for Development)
- Advocacy Communications

**Social Marketing**

Social marketing has long been one of the approaches connected to ComDev. (Waisbord, 2001) It is an approach which provides guidance “for the strategic, scientific determination of message and media strategies to disseminate ideas to promote social causes.” (Melkote & Steeves, 2015, p. 389) Entertaining education programs along with other health promotion campaigns would fall under this subdiscipline.

**ICT4D**

ComDev has sometimes shied away from ICT4D, at least in recent years, viewing it as exhibiting a tech bias or technological determinism in the expectations, held by some, that ICTs hold the answers to development. However, Kavada argues for a middle ground that allows for the value of both the medium and the message to be acknowledged. She argues for “viewing communication technologies and civil society organizations as forces that constitute each other…[forming] a sociotechnical network.” (Wilkins et al., 2014, p. 363)

**Advocacy Communication**

While advocacy work has generally been seen as outside the scope of ComDev, Melkote and Steeves argue that “the new avatar of development communication must include advocacy communication to raise awareness of issues, win support of constituencies and influence policy debates especially on matters relating to unequal distribution of development’s benefits in a society.” (2015, p. 397) In her 2015 Editorial for a special issue of Communication Theory devoted to advocacy
and communication for social change, Wilkins describes the benefits of advocacy communication: “Working within a recognized hegemonic process, advocacy communication enables potential to negotiate and work toward changing conditions for a public good through leveraging political resources and opportunities.” (Wilkins, 2015, p. 120)

**Emerging Issues**

Given that ComDev is a reflexive and dynamic discipline that reinvents itself often, an exhaustive list of emerging issues would be impossible or, at the very least, quickly out-of-date. With this challenge in mind, I will offer a short list of key emerging issues I have come across in the literature. In choosing the items on this list, I did not necessarily attempt to identify the most pressing concerns in the field but, rather, to choose those I thought would lend themselves to a comparison with IS later on:

1. Sustainability and Scale-up  
2. Evaluation and the ‘impact turn’  
3. The challenge of complexity  
4. Fragmentation of the field

**Sustainability and Scale-up**

The small-scale “boutique” interventions that have often characterized ComDev have limited potential impact and require scaling-up to provide sustainable gains over time. (Waisbord, 2015) According to Perez et. al (2012), “To work at scale, service delivery requires policy reform and a strong, supportive enabling environment.” This assertion supports the emerging view in ComDev that sustainable social change must take place at multiple levels through a combination of both top-down and bottom-up approaches.

**Evaluation and the ‘Impact Turn’**

Waisbord and others have pointed to the emerging issue of aid effectiveness and evaluation that has emerged over the past decade. (Waisbord, 2015) Referring to this increase in program evaluation and the need to “demonstrate tangible impact”
as the “Impact turn in global aid”, Waisbord contends that this shift was cemented by the 2005 Paris Declaration on Aid Effectiveness and the 2008 Accra Agenda for Action, which aimed “to make aid more transparent and accountable and strengthen country ownership of programs.” (p. 154) Waisbord suggests that ComDev needs to take particular interest in this issue to ensure that communication is adequately and appropriately accounted for.

**The Challenge of Complexity**

In The Handbook of Development Communication and Social Change, Tacchi and Lenni describe social change as “nonlinear, dynamic, emergent and complex.” (Wilkins et al., 2014) As the authors point out, “social change is contextual” and context is multi-levelled and dynamic and, to be successful and equitable, interventions must account for this complexity. Indeed, they note that

> “Notions of social change that encompass complexity and difference recognize that technological change and development interventions may have complex, diverse and often contradictory effects on different communities or groups of people such as women and the very poor.” (p.301)

So then, for ComDev interventions to be most effective and equitable and to most accurately evaluate their ‘success’, we must shift focus towards broader goals and bigger challenges—incorporating systems-level change with individual and smaller scope social changes.

**Fragmentation of the field**

In a 2015 article for the journal, *Communication Theory*, Silvio Waisbord lays out three key challenges facing ComDev today—among them, ‘fragmentation of the field.’ (Waisbord, 2015) According to Waisbord, the field is fragmented in two key ways: 1) it has been taken up by a variety of social science disciplines from a variety of theoretical perspectives, with different understandings or interpretations of key concepts (‘communication’, for one) and 2) as mentioned earlier: the gap between theory and practice. Waisbord characterizes this gap as being, at least
partially, due to shifting donor policies and priorities, which ComDev practice is inherently beholden to in ways that ComDev scholarship is not.

**Implementation Science**

*Theoretical Origins*

By most accounts, Rogers' contributions have been the longest-lasting—or perhaps the most obviously long-lasting in the field of IS. (C. A. Estabrooks et al., 2008; Nilsen, 2015) A 2004 longitudinal author co-citation analysis looking at the knowledge utilization field from 1945 through 2004 found that Rogers was the most cited author in four of the six decades and his book, *Diffusion of Innovations*, was the most cited publication in three of the six decades examined.

Dearing (Hemer et al., 2005, p. 72) points out that, “theorizing about diffusion of innovations has a 110-year history.” And, he highlights the fact that diffusion has been studied by practitioners and scholars with a wide diversity of backgrounds; and, that the way the problem is framed varies from trying to explain why innovations diffuse to attempting to replicate a program through intentional or directed diffusion. (2008) The practice and study of implementation has an equally long history and is tied in many ways to the history of diffusion. However, there have been a few splits in the history of the field, which have led to the conception of IS that I am examining here.

An important clue to the story of how the current iteration of ‘implementation science’ came to be is illuminated in Estabrooks et. al’s analysis of the knowledge utilization field. First, in the period from 1985 to 1994, one of three identified trends is the emergence of evidence-based medicine as a distinct domain in the field. Second, in the following decade, from 1995 to 2004, a shift occurs in the most-cited work in the field—from Rogers’ *Diffusion of Innovations*, which had held the spot for the three previous decades, to a paper by the 29-member Evidence-based Medicine Working Group based out of McMaster University in Canada: *Evidence-based medicine. A new approach to teaching the practice of medicine*. (Guyatt et
al., 1992) As noted earlier, and exemplified by this paper, I do not believe that ComDev should seek to ‘fix’ this first problem of fragmentation. I believe that ComDev can benefit from continuing to build upon multi/trans-disciplinary approaches. I also believe other disciplines, like Implementation Science, can benefit from interaction with ComDev only if its theorists and practitioners abandon the idea of trying to draw strict boundaries around it.

Nilsen (2013) asserts that “Implementation science emerged in the wake of evidence-based medicine, initially showing a strong influence from medical research where the balance is tilted towards models of research practice drawn from the natural sciences.” (p.4) Nilsen also claims that IS has since evolved from a “producer-push conceptualization of research use” towards broader approaches that incorporate social science perspectives and the perspective of knowledge users—which he says represents “a sort of bottom-up perspective.” (p. 4) Still, the quantitative nature of the field persists far more strongly than one would see in similar endeavours in the social sciences—Nilsen contrasts this approach with policy implementation research specifically. While I agree that IS has likely made a shift on the continuum of top-down and bottom-up approaches, I think it is misleading to use the term ‘bottom-up’ to describe approaches in IS given the realities of how experiments are funded, conceived and evaluated in the field. (Edwards, 2015)

While the current iteration IS, as the science of implementing improvements to clinical practice, has in some sense departed from its roots and from connections to other disciplines within the knowledge utilization family, the field is now beginning to expand its scope. As mentioned previously in this paper, the core journal in this field, Implementation Science, has twice expanded its scope over its 10-year history. (Eccles et al., 2012; Foy et al., 2015) One of the areas that IS has begun to expand into is the field of ‘global health’. (Weber, 2015)
**Characteristics**

1. **Objective of research**: test effectiveness of strategies to affect change in clinical practice;
2. **Object of implementation**: emphasis on the implementation of ‘evidence-based’ interventions and innovations;
3. **Methods**: Preference for rigorous experimental methods in the creation of new knowledge in the field;
4. **Theoretical framework**: Strong influence from medical research practice drawn from the natural sciences.

The above list paints a picture of the typical characteristics of the IS field as it has been conceived since the early- to mid-90s, when it began to emerge as a field of research closely linked to evidence-based medicine and practice. While I believe that the above list of characteristics still represent the dominant paradigm in the field, there have certainly been calls for changes to the field and work done to this end in recent years. This shift in perspective can be characterized as a move away from reductionist methods towards more complexity-based approaches to change, which draw more heavily on work done in the social sciences and population-based health intervention research. (Edwards & Barker, 2014)

**Use of Theory**

By many accounts, the relationship to theory in IS is one of abundance. In a 2015 article, Nilsen points out that “There are now so many theoretical approaches that some researchers have complained about the difficulties of choosing the most appropriate.”(Nilsen, 2015)

The field of IS has, for instance, imported numerous social-cognitive theories, organization and economic theories and researchers in the field have developed many theories of their own to explain, predict and plan for enablers and barriers to implementation. (Nilsen, 2015; Nilsen et al., 2013)

Nilsen has identified three objectives for the use of theories, models and frameworks in IS: “(1) describing and/or guiding the process of translating research into practice, (2) understanding and/or explaining what influences implementation outcomes and (3) evaluating implementation.” (2015, p. 2) Based on his systematic
review of the field, Nilsen has also identified five categories of theoretic approaches employed in IS:

- Process models
- Determinant frameworks
- Classic theories
- Implementation theories
- Evaluation frameworks (p. 3)

Process models act as a sort of how-to guide to the process of implementation. Researchers use determinant frameworks to anticipate and/or explain barriers and enablers to implementation. Classic theories are those derived from fields outside of IS—psychology for example—whereas implementation theories are those developed within the field of IS. Evaluation frameworks are used to identify aspects of implementation interventions that can be measured to evaluate their success. (Nilsen, 2015)

In both his 2013 and 2015 analyses, Nilsen points to debates in the field of IS regarding the search for a unifying theory of implementation, which he considers a red herring that can only distract from the need to acknowledge and address the heterogeneity and complexity of contexts in which implementation takes place.

**Related-Disciplines**

In Estabrooks et. al.’s analysis of the knowledge utilization field, the authors identify four major domains:

1. Innovation diffusion;
2. Technology transfer;
3. Knowledge utilization; and
4. Evidence-based medicine. (C. A. Estabrooks et al., 2008)

The authors make the link between these fields by pointing out that they are “substantively similar on the basis that they all address the idea of solving social problems with knowledge.”
While these four domains are certainly related to the history of IS, I would say that only the third and fourth, knowledge utilization and evidence-based medicine is practically and theoretically connected to the science and practice of IS today.

Following from the analyses offered by Nilsen (Nilsen et al., 2013) and Edwards (Edwards, 2015), I offer the following short list of related disciplines:

1. Policy Implementation Research;
2. Population Health Implementation Research;
3. Knowledge Utilization; and
4. Evidence-based medicine and practice.

There are certainly other disciplines related to IS, ComDev being one of them, as I make the case here. However, for the sake of consistency with my overview of ComDev, I am using the scope proposed by Lie and Servaes for identifying related disciplines:

1. That the fields be established within the overarching discipline (here that would be implementation or knowledge utilization, depending on how you want to frame it) and
2. That they have a “community of interest” within the field (of implementation science.) (Lie & Servaes, 2015)

**Emerging Issues**

As an emerging field of inquiry with a relatively short history in its current form, IS, in much the same was as ComDev, has many emerging issues concerned with its scope and objectives. With this in mind, and with the same caveats as with my emerging issues list for ComDev—that this is a small selection among many possibilities—I offer the following list of current emerging issues in the field:

1. Sustainability and scale-up
2. Context and Complexity
3. Adaptation versus Fidelity
4. Accessibility and equity

While sustainability and scale-up are somewhat distinct issues, discussions of their importance in IS tend to go hand in hand because there are key connections between the likelihood of each being successful. For example, an unsustainable
program isn’t likely to reach scale-up and, depending on the intervention, its sustainability may be improved through scale-up and integration at multiple cites and levels.

Dearing and Kee acknowledge that sustainability has not generally been a key concern within IS, “though this is beginning to change.” (Brownson et al., 2012)

Edwards points out that there are a number of key factors limiting scale up in implementation, many of which are tied to other emerging issues on the list above. For example, she suggests that a more flexible approaches to intervention testing and optimization might yield more success, which gets to the issue of adaptation vs. fidelity.(Edwards, 2015) In an article from 2014, Edwards emphasizes the need for “A framework for understanding and describing context, as well as an *adaptive approach* for implementing and scaling up interventions in a context-sensitive way.” (Edwards & Barker, 2014) (Emphasis added.)

Edwards acknowledges that much of IS research views population heterogeneity and context as ‘noise’ that adds unnecessary complexity to comparative research design and evaluation. Edwards admits that IS isn’t very good at describing context:

> “We’re not very good at describing the health system or political system factors that may be of real concern for decision-makers who are trying to think ‘well, can this work in my setting with my realities?’ Even basic things like describing, in the health-care world, if populations have universal access to health care is often not described as context.” (Edwards, 2015)

The ultimate objective of IS is often described as investigating some version of “What works, for whom, under what circumstances.” Edwards and Barker have suggested that this objective be expanded to include “and whether interventions are scalable in equitable ways.” (2014) To achieve equity in intervention scale-up requires a deep understanding of context, which cannot be achieved without participation of the people who are meant to implement and/or benefit from interventions. As Edwards points out in her presentation at the University of
Montreal, “Those who understand context are those who live it every day. The patient knows their context. The community knows their context better than a researcher—who is an outsider—or a clinician—who, too, is an outsider—can ever know.” (Edwards, 2015)

5. COMPARATIVE ANALYSIS

“One of the most easily overlooked facts about university organization is that academic departments are organized according to subject matter.”
– Anthony Biglan (1962)

Some Similarities and Common Issues

As is evident from the descriptions of Implementation Science and Communication for Development provided above, the histories, characteristics, aims and emerging issues of IS and ComDev share a number of parallels.

When comparing the fields of KT, IS and ComDev, of particular note is that they struggle with many of the same emerging issues, including:

1. Tensions between attempting to define the scope of the discourse and embracing interdisciplinarity;
2. The challenge to engage with change at multiple sites, including structural, political and policy levels;
3. The critical nature of employing participatory methods to ensure project efficacy;
4. The struggle to evaluate and illustrate the broader societal impact of interventions; and Integrate into definitions table?/characteristics table?
5. The challenge of connecting theory, practice and results (or academics, practitioners and end users/beneficiaries). (Research, 2012)

The theoretical development of the disciplines in particular share some common characteristics, especially the way in which both have struggled with the realization that sustainable positive change is more likely when participatory methods are integrated throughout the process. In simple terms, this is to say that research and interventions must implicate the people who are meant to use it and interventions
must implicate the people who are expected to benefit from them—at all stages: from issue identification through to determining what success means when it comes to evaluation.

To better illustrate some of the key comparators between the fields and to avoid too much repetition, I have included some of the key points in the table below. The concepts and characteristics included in this table are drawn from my review of the literature generally and the concept map that I created through this process.
## Comparison of Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>ComDev</th>
<th>Implementation Science</th>
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</table>
| **History**     | - Diffusion of Innovations, Mass Media and Communications  
- Evolution of paradigm: Modernization-diffusion, dependency, participatory  
- Evolving approaches: top-down, bottom-up, combination of approaches | - Diffusion of innovations  
- Evidence-based medicine  
- Strong influence from medical research practice from the natural sciences |
| **Context & Audiences** | - Global South  
- Local governments  
- Local opinion leaders  
- Local people ('beneficiaries') | - Health practitioners and service providers  
- Decision-makers  
- Policy-makers |
| **Objectives & Outcomes** | - Improved health outcomes (health promotion)  
- Social justice and human rights  
- Literacy and education  
- Respond to natural disasters and other emergencies  
- Democracy and political participation  
- Conflict resolution and peace-building  
- Poverty alleviation and economic productivity  
- Agricultural productivity  
- Promotion of alternative and independent media  
- Building resilient communities  
- Children’s rights  
- Social change | - Improved health outcomes  
- Implementation of evidence-based clinical practice  
- Implementation of evidence-based population health interventions  
- Knowledge creation to inform best practices and further research in implementation |
| **Theory**      | - Use of toolkit approach to methods rather than seeking overarching theories  
- Use of thick description in analysing and evaluating projects  
- Transdisciplinary approach drawing mainly on social sciences | - Heavily theory- and evidence-based  
- Reductionist approach to testing interventions  
- Push towards the development of a unifying theory of implementation in certain circles |
| **Emerging Issues** | - Sustainability and scale-up  
- Evaluation and the ‘impact turn’  
- The challenge of complexity  
- Fragmentation of the field | - Sustainability and scale-up  
- Context and complexity  
- Adaptation versus fidelity  
- Accessibility and equity |

**Table 2: ComDev and Implementation Science Comparison**
**Calls for Unified Fields & Interdisciplinarity**

One final item of note in the comparison of ComDev and IS is that there have been calls within each for a unification of or interdisciplinarity between the related disciplines. In the realm of IS, this has manifested as a call for “a discipline of knowledge utilization.” (C. Estabrooks, Scott-Findlay, & Winther, 2004; C. A. Estabrooks et al., 2008; Lang, Wyer, & Haynes, 2007) In ComDev, Servaes and Lie have suggested that subdisciplines “engage more explicitly with Communication for Development and Social Change.” However, they also say that transdisciplinarity is needed, which would engage a broad cross-section of expertise to help solve “complex or so-called wicked problems.” (Lie & Servaes, 2015)

In 2004, the U.S. National Academies report, *Facilitating Interdisciplinary Research* stated that: “Interdisciplinary thinking is rapidly becoming an integral feature of research as a result of four powerful ‘drivers’: 

1. the inherent complexity of nature and society,
2. the desire to explore problems and questions that are not confined to a single discipline,
3. the need to solve societal problems, and
4. the power of new technologies.” (Medicine, Sciences, & Engineering, 2004)

These drivers certainly appear relevant to both ComDev and IS. Furthermore, a 2013 book, *Disciplining Interdisciplinarity: Integration and Implementation Sciences for Researching Complex Real-World Problems* made the case for an interdisciplinary approach to IS. (Bammer, 2013) The goal of the book, as stated in the introduction, was to investigate the question: “How can academic research enhance its contributions to addressing widespread poverty, global climate change, organised crime, escalating healthcare costs or the myriad other major problems facing human societies?” (p.3) Ironically, even in a book about interdisciplinarity, aiming to address global development objectives, ComDev is still not mentioned.
6. CONCLUSIONS

Summary of Major Conclusions

Over the course of writing this paper, I have searched for explicit connections between the fields of Communication for Development and Implementation Science. My bibliometric analysis showed very few overlaps in the references of published articles. Through my research, I was able to find only one single instance where IS and ComDev are even mentioned in the same document—and I have to thank my supervisor, Dr. Helen Hambly Odame, for pointing me towards it because it was not easy to find: *Expanding our Understanding of K*(Kt, KE, Ktt, KMb, KB, KM, etc.): A concept paper emerging from the K* conference held in Hamilton, Ontario, Canada, April 2012.* (Shaxson & Bielak, 2012)

I have also, hopefully adequately, made the case that ComDev and IS share a number of key characteristics, including history, objectives, scope and emerging challenges in the fields. The key similarity that ties these two disciplines together, in my mind, is that IS appears to be following in some of the historical footsteps of ComDev—in terms of taking a top-down, diffusionist approach to the creation and dissemination of information—and would likely benefit from many of the lessons that ComDev research and practice have already learned.

So the question remains: if the fields have some key things in common, but as of yet, have not been working together, why should they? The following are some recommended opportunities I have identified through my research, where I believe each field could benefit from engaging with the literature, theorists and practitioners of the other to more effectively and equitably achieve their mutual objectives.
Key Recommendations

Opportunities for Learning for ComDev from IS

1. Evaluation and the ‘impact turn’

While the reductionist methods of implementation science can present challenges when attempting to apply interventions in the complexity of the ‘real world’, they do have their place and benefits. The natural sciences have quite literally made a science of comparative effectiveness studies.

I believe a transdisciplinary team made up of implementation scientists and ComDev researchers and practitioners would have a very complementary set of skills that would lend themselves to developing new approaches to evaluation impact.

2. Integration of Knowledge Users in Research

This point comes from the field of knowledge translation (KT), which is closely related to IS. In the field of KT:

“The central premise of iKT [integrated knowledge translation] is that involving knowledge users as equal partners alongside researchers will lead to research that is more relevant to, and more likely to be useful to, the knowledge users.” (Research, 2012)

Integrated knowledge translation is also closely related to participatory action research, which is a common approach in ComDev; so it may seem odd to include this concept here. However, I believe iKT conceptualizes knowledge users and their inclusion differently from how ComDev sees participation and I believe an approach from the iKT perspective may provide a valuable paradigm shift.

It is important to note that the practice of iKT is far from perfect and has run into many of the same challenges with partnership and participation that ComDev has. That said, I still believe there may be valuable lessons to be gleaned from this
approach. For example, in iKT, knowledge users are seen as co-creators of knowledge throughout the research process. And, knowledge users can be anyone who might have use for the knowledge, including, clinicians and other health-care practitioners. If we overlay this approach onto ComDev, the analogous partnership could be between theorists and practitioners—and not just in intervention-focused academia.

While much of the writing on ComDev relates to case studies of on-the-ground interventions, there is also a great deal focused on the theoretical discourse of the field. I believe this kind of thinking and writing about the field could benefit greatly from two-way dialogue and collaborations with knowledge-user practitioners in the field. I also believe it would be a step in the right direction towards addressing the ‘fragmentation of the field’ and the theory-practice gap.

3. Opening the Door to the global North

ComDev does not need a door opened to the global North per se—many of its practitioners and theorists are from ‘western’ countries; however, IS could help open the academic doors across geographic borders.

The discourse of ComDev, or Communication for Social Change, argues for a non-linear, non-western-centric view of social change. One such argument goes that everyone is always developing so there is no such thing as developed and not developed. There are social problems in every country on earth. So, it would follow that successful strategies for social change, which have been applied in ‘development’ contexts, could be applied to the ‘wicked’ problems of the global North.

From another perspective: I cannot think of an example of an international research team, working on health issues, which includes research partners from the global South, where the research was not taking place in or about a population in a lower-income country. What insights might a ComDev research partner from a post-
colonial country in West Africa have in combating complex health and social challenges within Indigenous populations in Canada, for instance?

**Opportunities for Learning for IS from ComDev**

1. **Complexity, Context and Culture**

The methods of IS lend themselves well to empirical studies, in controlled conditions with fixed variables; however, the contexts where programs, policies and interventions are in greatest need of implementation are often the most complex. ComDev has been struggling with the concepts and challenges of context, culture and complexity since its inception and, while it certainly doesn’t have all the answers, I believe it can share some lessons-learned regarding where the answers aren’t.

There is a search on, in some circles of IS at least, for a unifying theory of implementation (*one theory to rule them all!*), which can be applied universally towards the theory and practice of implementation. As mentioned in this paper, this goal has been criticized, mainly because it seems difficult to imagine how such a theory could be applicable across a broad range of complex contexts. Rather than seeking out this unifying theory—or even many, overlapping models, theories and frameworks—I believe IS would benefit from applying some version of the toolkit approach that ComDev takes. Frameworks and models will surely still be required in the field, but they could be applied more flexibly in specific contexts, in coordination with other tools.

Working in complex contexts requires flexibility, which is a challenge in grant-funded research that must follow the plan rather than following the outcomes of the plan and adjusting accordingly. The focus on maintaining the fidelity of interventions at the cost of their success is a challenge that IS must address at the level of both research and funding. One way forward may be the use of transdisciplinary teams and mixed-methods studies, which could help to guide IS studies towards research design and evaluation methods that are better able to address study objectives and measure success.
Another aspect of complexity that is often overlooked in IS is the various levels of culture and history embedded in the concept of context. Nancy Edwards pointed out that IS often overlooks the inclusion of contextual factors as simple and obvious as whether or not a population has access to universal health care or not. ComDev can help point to a number of areas where context needs to be considered for reasons of both ethics and effectiveness. For instance, if implementation scientists aim to implement a clinical intervention in Mali, how might the post-colonial history of the country affect partnership and communication with local health authorities and clinicians? How will this be accounted for in the implementation plan? In these sorts of contexts, ComDev may be able to provide some insight by applying the lenses of cultural studies, post-colonial discourse and subaltern studies, which are likely lacking from the expertise of an IS team.

2. Critical Perspectives on Participation

Developing and sustaining meaningful partnerships with the governments, opinion leaders and local people who are meant to benefit from a project, particularly in complex, post-colonial environments, is a difficult task. The participatory approach in ComDev, while central to much work in theory and practice, has hardly been clear-cut or evenly applied in either theory or practice. That said, the participatory paradigm has been around in ComDev for quite some time and, again, I believe it has some valuable critical thinking on the topic to share with IS.

Firstly, I think it is important that IS take a critical perspective on participation. From the reasons that people are asked to participate to who is asked to how they will be included and what role they will have in the process must all be considered from a critical perspective that considers a variety of contextual factors. As mentioned above, the history of a place and a population, contextual factors at the state, community, family and individual levels are important to understand and, as Nancy Edwards points out, they elude outsiders. So how then can these factors be accounted for? How can participatory methods be applied in ways that bring these challenges to the fore in a way that is beneficial to all involved and does no harm?
These are complex questions without clear-cut answers. But, those working in the field of ComDev do have strategies that can help move things forward (however imperfect they may be) and those working on the academic side of ComDev have lenses they can apply to help reveal problematic issues in partnership development.

3. The Centrality of Power

The universal ethical principles for research include:

1. Do no harm
2. Do good
3. Justice
4. Respect for autonomy

The application of these four principles in the context of lower-income countries is likely very different from their application higher-income countries; and the reasons for these differences are tied inextricably to the concept of power.

Power is a central theme in the work of ComDev mainly because it deals in contexts where power imbalances are plain to see and clearly problematic. If IS researchers engage in work in the global South, I believe it is an ethical imperative that they apply a critical lens to their work that acknowledges the centrality of power in all interactions. Otherwise, their work could be unintentionally reproducing harmful effects of colonization.

Edwards and Di Ruggiero capture the essence of this point very well:

“Addressing historical injustices must go beyond improving the cultural relevance of our interventions and the cultural competence of health care providers. It also signals the need to be cautious in the use of “mainstream, best practices that disregard the historical context of Aboriginal communities...[and thus may] inadvertently support aims, relationships and processes of colonisation that are counterproductive to promoting health.” (2011)
I would also suggest that the centrality of power does not only need to be applied to IS work that takes place in the global South—there are plenty of examples of how power differentials between physicians and patients, researchers and participants and, applying some of the power-based concepts and lenses mentioned above may provide interesting and helpful insight into implementation challenges in the global North as well.

**Areas for further research and attention**

With this paper, I have made the argument that there are important overlaps and opportunities for learning between the fields of ComDev and IS. This argument has been supported by a literature review that has focused mainly on the theoretical side of both disciplines. I believe that further research should focus on the practical implementation of these theories, comparing cases where each discipline has aimed to address the same issues in similar contexts. Some promising areas for identifying case studies include interventions in maternal/child health, HIV prevention, family planning, immunization and nutrition.

Over the course of my research and readings, I came across a number of disciplines tangentially related to the fields of Communication for Development and Implementation Science. I believe these represent areas for further research and opportunities for additional trans-disciplinary collaboration.

In particular, as noted throughout this paper, I believe the areas of policy implementation research, as presented by Nilsen, and the area of population health intervention research, as presented by Edwards, present clear opportunities for learning and collaboration.

Edwards also points to the field of improvement science as an area doing good work, particularly on the issue of balancing fidelity and adaptation. From the little I have read, this appears to be another important opportunity for learning that crosses disciplinary boundaries.
The field of Research (or Science) Communications also contains some overlaps between the fields of IS, KT and ComDev and presents opportunities for further investigation. (Barwick, Phipps, Myers, Johnny, & Coriandoli, 2014; Sussel, 2015)

One last area where I believe further research and work is needed is in the application of gender-responsive and intersectional lenses to the work and study of implementation science. This is, to some extent, covered in recommendations that IS take a closer look at contextual factors; however, I believe there are unique issues and approaches in gender theories that require their own attention. For instance, the application of gender-transformative approaches, particularly in the field of health promotion, in the global South is a key area that I believe merits attention from scholarship and practice in higher-income countries.

As a final thought and lesson, I believe the following advice from Quebral is a relevant reminder to both CommDev and IS:

“So I remind you, let us never forget development. In the development communication partnership, it remains the weightier of the two. It sets the goal and provides the message. It distinguishes development communication from other types of information exchange.” (N. C. Quebral, 2006)
Appendices

Appendix 1: Family Tree Concept Mapping

The following screens captures provide an overview of the concept map I created with RealTime Board. However, it is not possible to capture all of the information included in the concept map in this format. To explore the entire map, please visit the following link: https://realtimeboard.com/app/board/o9J_k1cWI_Q=/
Non-Thematic Fields
Communication for Development/Social Change

- Daniel Lemer
- Wilbur Schramm
- Everett Rogers
- Fernando Enrique Cardoso
- Andre Gunder Frank
- Armand Mattelart
- Antonio Pasquali
- Jan Servaes
- Erskine Childers
- Brenda Dervin
- Robert Huesca

Krystle van Hoof 3 days ago
Cardoso and Faletto, 1979

Leave a reply. Use @ to mention.
Appendix 2: List of Search Queries Using Scopus

Search #1: Implementation science articles 2006-Present (990 results)

SRCTITLE ("implementation science") AND DOCTYPE (ar) AND PUBYEAR > 2005

Search #2: Search of all text for ComDev keywords (3,632 results)

ALL ("communication for development") OR ALL ("development communication") OR ALL ("communication for social change") OR ALL ("knowledge for development") AND PUBYEAR > 2005 AND (LIMIT-TO (DOCTYPE, "ar"))

Search #3: Refinement of ComDev search to exclude irrelevant titles (3,571 results)

ALL ("communication for development") OR ALL ("development communication") OR ALL ("communication for social change") OR ALL ("knowledge for development") AND PUBYEAR > 2005 AND (LIMIT-TO (DOCTYPE, "ar")) AND (EXCLUDE (EXACTSRCTITLE, "Journal of Autism and Developmental Disorders OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Journal of Adolescent Research OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Infant and Child Development OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Journal of Speech Language and Hearing Research OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Cognition OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Journal of Computer Mediated Communication OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Child Abuse and Neglect OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "British Journal of Developmental Psychology OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Journal of Mathematical Physics OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Lecture Notes in Computer Science Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics OR EXCLUDE EXACTSRCTITLE") OR EXCLUDE (EXACTSRCTITLE, "Journal of Experimental Child Psychology") AND (EXCLUDE (EXACTSRCTITLE, "Infant Behavior and Development") OR EXCLUDE (EXACTSRCTITLE, "Developmental Psychology") OR EXCLUDE (EXACTSRCTITLE, "Journal of Autism and Developmental Disorders") AND (EXCLUDE (EXACTSRCTITLE, "Computers in Human Behavior") AND (LIMIT-TO (LANGUAGE, "English"))

Search #4: ComDev Keyword search limited to selected journals (1,242)

(TITLE-ABS-KEY("Communication for development") OR TITLE-ABS-KEY("development communication") OR TITLE-ABS-KEY("communication for development")) OR TITLE-ABS-KEY("development communication") OR TITLE-ABS-KEY("communication for social change") OR TITLE-ABS-KEY("knowledge for development"))

73
### Appendix 3: ComDev Journal Selection

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<th>Relevant Y/M/N?</th>
<th>PUBLICATION TITLE</th>
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<th>No. of Records</th>
<th>H-Index</th>
<th>SJR</th>
<th>IPP</th>
<th>SNIP</th>
<th>SCIMAGO Comm Journals (/240)</th>
<th>SCIMAGO Dev Journal (/188)</th>
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<td>1</td>
<td>Plenty of ComDev content</td>
<td>Y</td>
<td>Journal of international communication</td>
<td>22</td>
<td>?</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>73</td>
<td>2.683</td>
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<td>1.632</td>
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<td>29 articles on devcom, 4 on comdev, 30 hits for Int'l Dev</td>
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<td>Media, Culture and society</td>
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<td>Development in Practice</td>
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<td>0.308</td>
<td>0.432</td>
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<td>International Communication Gazette</td>
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<td>24</td>
<td>18</td>
<td>0.694</td>
<td>0.647</td>
<td>0.897</td>
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<td>Howard journal of communications</td>
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<td>?</td>
<td>11</td>
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<td>DC, ComDev, CSC don’t come up with much. But search for Comm &amp; Dev 400+</td>
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<td>Critical Arts: South-North Cultural and Media Studies</td>
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<td>0.14</td>
<td>0.329</td>
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<td>9</td>
<td>But are recent articles as relevant? Unsure</td>
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<td>Communicatio</td>
<td>157</td>
<td>13</td>
<td>4</td>
<td>0.245</td>
<td>0.213</td>
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<td>Plenty of ComDev, CSC articles</td>
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<td>Journal of creative communications</td>
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<td>11</td>
<td>4</td>
<td>0.1</td>
<td>0.02</td>
<td>0.073</td>
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<td>11</td>
<td>Plent of CSC content</td>
<td>Y</td>
<td>journal of multicultural discourses</td>
<td>103</td>
<td>?</td>
<td>4</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Very media/journalism focused but quite a few devcomm (38) ComDev (16) CSC (7)</td>
<td>Y</td>
<td>Ecquid Novi</td>
<td>98</td>
<td>14</td>
<td>4</td>
<td>0.325</td>
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Table 3: Selected Core Journals
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<th>H-Index</th>
<th>SJR</th>
<th>IPP</th>
<th>SNIP</th>
<th>SCIMA GO Comm Journal s (/240)</th>
<th>SCIMA GO Dev Journal (/188)</th>
</tr>
</thead>
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<td>Yes- but unfortunately not found in Scopus</td>
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<td>1</td>
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<td>Very ICT focused but Jan Servaes is the editor</td>
<td>M</td>
<td>Telematics and Informatics</td>
<td>17</td>
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<td>0.52</td>
<td>1.45</td>
<td>1.535</td>
<td>66</td>
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<td>Good amount of development theory and implementation</td>
<td>M</td>
<td>Information Technology for Development</td>
<td>20</td>
<td>13</td>
<td>0.37</td>
<td>7</td>
<td>0.696</td>
<td>0.785</td>
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<td>World Development</td>
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<td>109</td>
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<td>6</td>
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<td>2.209</td>
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<td>M</td>
<td>Journal of Health Communication: international perspectives</td>
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<td>53</td>
<td>0.87</td>
<td>4</td>
<td>2</td>
<td>1.189</td>
<td>35</td>
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<tr>
<td>Relevant but very ICT focused and unsure of level of influence/quality</td>
<td>M</td>
<td>Information Development</td>
<td>11</td>
<td>9</td>
<td>0.36</td>
<td>8</td>
<td>0.623</td>
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<td></td>
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<td>Nothing very recent that's relevant</td>
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<td>Annals of international communication association</td>
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<tr>
<td>Too all-encompassing</td>
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<td>PLoS One</td>
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<td>1.3</td>
<td></td>
<td>3.27</td>
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<td>Telecommunications Policy</td>
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<td>1.571</td>
<td>1.315</td>
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<tr>
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<td>Journal of international development</td>
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<td>44</td>
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<td>2</td>
<td>0.823</td>
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<td>Western Journal of</td>
<td>13</td>
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<td></td>
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<td>Reason</td>
<td>Journal</td>
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<td>Mean Score</td>
<td>Median Score</td>
<td>Range</td>
<td>H-index</td>
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<tr>
<td>Too difficult to distill development-related from the health/medical paradigms</td>
<td>Health Communication</td>
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<td>0.61</td>
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<td>1.13</td>
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<td>0.5</td>
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<td>Agroecology and Sustainable Food Systems</td>
<td>N</td>
<td>5.6</td>
<td>1.242</td>
<td>0.034</td>
<td>1.608</td>
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<td>0.13</td>
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<td>Info</td>
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<td>0.66</td>
<td>0.24</td>
<td>0.034</td>
<td>0.646</td>
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<tr>
<td>Only very few relevant titles</td>
<td>peace review</td>
<td>N</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
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<tr>
<td>ComDev, DevComm and CSC not found in search</td>
<td>Mediterranean Journal of Social Sciences</td>
<td>N</td>
<td>0.39</td>
<td>0.13</td>
<td>0.004</td>
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<tr>
<td>Too technology and diffusion focused</td>
<td>Electronic Journal of Information Systems in Developing Countries</td>
<td>N</td>
<td>0.39</td>
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<td>0.034</td>
<td>0.502</td>
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Table 4: Journal Rankings (Journals not selected)
References


Brownson, R. C., Colditz, G. A., & Proctor, E. K. (2012). Dissemination and implementation research in health translating science to practice (pp. 1 online resource.).


Krishnan, A. (2009). What are academic disciplines. *University of Southampton, NCRM E Prints Repository eprints. ncrm. ac. uk/783/1/what_are_academic_disciplines. pdf*.


doi:10.1111/comt.12070
