

NETWORKS, GLOBALIZATION, AND WORLD BANK EDUCATION STRATEGIES

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ABSTRACT: Development strategies of International Financial Institutions (IFIs), such as education strategies of the World Bank, advance globalization in part by promoting networks as organizational forms in public services and wider society. Networks are inherently decentralizing and are becoming the dominant organizational form due to advances in Information and Communication Technologies (ICT). The work of Karl Marx (interpreted through David Harvey), Manuel Castells, and Gilles Deleuze and Felix Guattari provide new insights into the use of ICT and networks as a social organizational form. Technology does not determine society, but reveals our relations to nature, production, and reproduction, our social relations, and our mental conceptions. These relations are dialectic in the Marxian sense that we cannot change the world around us without also changing ourselves. World Bank education strategies advance a networked type of education system, and impose a new form of discipline, to facilitate the emergence of a knowledge economy. However, the World Bank does not include our relation to nature in these strategies, and the strategies lack detail concerning modes of production and reproduction – essential to knowing why education is necessary. A more comprehensive understanding of the network form and ICT can contribute to critiques of development discourses in education reform and modes of being in the world.

KEYWORDS: development strategy, education policy, globalization, interdisciplinarity, networks, World Bank

Introduction

International financial institutions (IFIs) use a neo-liberal reform agenda to systematically alter public policy on a global scale. Among the IFIs, the World Bank is the “major player” in setting global education policy and at the forefront of the shift to neoliberal thinking (Klees 2008).¹ This paper is a step towards developing a critique of these practices. However, it is difficult to discuss education reform abstracted from a discussion of globalization (World Bank 1999, 1). Using the decentralizing power of networks as a point of entry, this paper suggests how an analysis of networks could be used to critique World Bank education strategies as a step towards a wider analysis of globalization.

¹ See Klees (2008, 311-312), for an overview of the history and policy failures of the World Bank in the 1980s and 1990s. Bergeron (2008, 350) suggests this was a first phase of “‘rolling back’ the previous Keynesian and social welfare regimes” while recent efforts constitute a second phase “aimed at ‘rolling out’ and engineering a deeper set of neoliberal transformations.” See Castells (2005, 18), for suggestions on what this “rolling out” might signal.

To do this, I am using Repko’s (2012, 16) ten-step Interdisciplinary Research Process (IRP): “a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline.” The biggest task here is to understand globalization, and no single discipline is sufficient in so doing. The concept “globalization” needs to be broken into constituent parts, and considered from multiple perspectives (Szostak 2011). I focus on one constituent part, education systems as networks, against which I compare equivalent conceptions: Marx’s (1990) six moments; Castells’ (2010) network society; and Deleuze and Guattari’s (1987) assemblage (or rhizome). The work of Marx, Castells, and Deleuze and Guattari help to unpack the relations in the World Bank’s networked conception of education systems: the ways in which the relations are arranged, the content of those relations, and the function of those relations.

By establishing common ground between each of these concepts, I will arrive at a more comprehensive understanding of networks, and explore how networks facilitate globalization.

Defining the Problem and Justifying Interdisciplinarity

Step 1, according to Repko (2012), is to define the problem or state the research question. In this case, *globalization* defines the general terrain, while the specific topic is the role of networks in World Bank education policy reforms driven by neoliberal and globalizing discourses. Repko's Step 2 is to justify using an interdisciplinary approach, including considerations of the complexity of the question and the extent to which one or more disciplines have previously considered the problem or question. These steps are reflexive, which means being self-conscious of disciplinary or personal bias and how these may affect the work, evaluation, or end product.

Repko (2012, 71-75) describes the steps in the IRP in terms of “feedback loops” rather than as a unidirectional sequence, such as a ladder, because the researcher will need to continually return to and revise work completed at earlier steps in light of new considerations encountered at successive steps. I arrived at this paper's topic in just this way. This paper started as an exploration of the trend towards decentralization and privatization in education systems, following an earlier attempt to understand a personal experience at an education “consultation meeting” on migrants, ethnic minorities, and stateless children in Thailand and Myanmar (UNESCO 2014). During the meeting I suggested funding education through new tax levies on migrant labour-intensive industries. UNESCO interpreted this as *finding support in the private sector* – the sentiment is practically the same, but the language is markedly different. To understand this turn of phrase, I first looked back to the World Declaration on Education for All (the “EFA Declaration”) (UNESCO 1990) – a key global education policy document, aimed at States, with the objective of maximizing the reach of education within a population. The Preamble of the EFA Declaration sets a dichotomy between “industrialized” and “developing” countries, thereby establishing that progress means developing towards industrializa-

tion. This is where the IFIs become important. Article 2 calls for “[surpassing] present resources levels, institutional structures, curricula, and conventional delivery system” (Article 2.1). In other words, this calls for moving away from the traditional disciplinary power towards a new system of education delivery – one supporting a new neoliberal order. The desire to “find support in the private sector” is a nod to privatization, which is accomplished in part through decentralization.

A succession of World Bank education strategies and policy documents, driven in part by globalization, encourage the adoption of networked education systems. In terms of the general terrain shaped by globalization, the complexity is quite evident. Theorists from disciplines as diverse as economics (Stiglitz 2006; Chang 2011), sociology (Castells 2005), development studies (Guttal 2010), and education (Collins 2005; Holst 2006; Brydon 2011; Szostack 2011) are unable to agree on a single understanding of globalization. Shorthand definitions of globalization tend to refer to compressed space and time, or growing interconnectedness and borderlessness, focus on the *effects* of globalization rather than the *causes* (Holst 2006, 42). To be sure, Brydon (2011) conceives of globalization as “the spread, growth, and speed of transplanetary social connections, which are leading to changes in transworld interconnectivity that cannot be limited to neo-liberalism alone” (102). Holst (2006, 42) argues that a more accurate understanding of globalization is “that it describes the nature and trajectory of contemporary capitalism.” Interconnectedness, borderlessness, speed, neoliberalism, and contemporary capitalism: these can all be understood as discourses that give rise to globalization.

In Foucauldian terms, a discourse is something that produces something else, rather than something that exists in and of itself and which can be analyzed in isolation (Foucault 1972, 49). No single discourse will provide a complete understanding but these multiple discourses will contribute to a more complete picture of the general terrain of globalization. Additionally, Szostak (2011, 182) argues that concepts like globalization that “refer to some vague combination of phenomena, theoretical arguments, and/or methods ... need to be broken into component parts.” In other words, multiple perspectives should be incorporated

into research and these perspectives should be directed towards parts as well as the whole. As such, the need for interdisciplinarity is apparent: a compelling critique of globalization is one that describes its constituent parts (in this case: networks), elaborates on those parts from multiple perspectives, and arrives at a more comprehensive whole.

Identifying Disciplines And Developing Adequacy

Steps 3, 4, and 5 are to do with identifying relevant disciplines, conducting a literature search, developing adequacy in each relevant discipline. A potentially relevant discipline is one that considers at least one phenomenon involved in the question or problem (Repko 2012, 144). However, Repko emphasizes the difference between “potentially relevant” and “most relevant,” meaning a discipline that, in addition to perspective and theories, has “produced a body of research ... on the problem of such significance that it cannot be ignored” (Repko 2012, 159-160) In this instance, I am beginning with the narrow focus on the World Bank’s role in education policy reform as an element within the wider topic of globalization. Rather than focusing on a discipline, I am focusing on a concept, in this case the World Bank’s revised understanding of the education system – a decentralizing, networked system.

The World Bank’s Education System

The World Bank has released a number of strategies that, over the years, have engineered significant reforms to government functions, such as privatizing government services, flexible labour markets and lowered worker protections, and decentralized management and decision-making (Klees 2008, 311-312). In education policy, two of the more recent strategies are the *Education Sector Strategy* (1999), and the more recent *Learning For All* (2011), which will serve as the World Bank strategy for education until 2020. Apart from these, the World Bank also released a notable policy document in 2003 describing the current era in terms of a “knowledge economy” – one which, the World Bank (2003, 17) claims, requires: working in multidisciplinary and distributed teams; using Information and Communication Technologies (ICT) for knowledge management, sharing, and creation; and updating and

changing skills through lifelong learning. Earlier, the World Bank (1999, 1) stated “tomorrow’s workers will need to be able to engage in lifelong learning,” but following the introduction of the “knowledge economy” to the discourse, *lifelong learning* becomes the central goal (World Bank 2011).² From a learning perspective, this evidently involves moving away from teacher and textbook as sources of knowledge towards the teacher as a guide for finding and interpreting real-world information. Expressing a contrarian perspective, Angus (2012, 25) views as problematic “the technological changes leading toward a network society” as this has reduced university-generated thought and research to “practical application in techno-science.” From either perspective, ICT, inherently decentralizing by design, play a critical role.

In terms of the evolution of World Bank strategy, a key discursive shift takes places between 1999 and 2011 in what the World Bank refers to as the *drivers of change*. Initially, the World Bank (1999, 1-2) stated these were: (1) *democratization* – which “has often been accompanied by decentralization of decision-making;” (2) *market economies*; (3) *globalization* – under which “global capital ... is constantly seeking more favorable opportunities, including well-trained, productive, and attractively priced labor forces in market-friendly and politically stable business environments;” (4) *technological innovation* – for “in the hyper-competitive global market economy, knowledge is rapidly replacing raw materials and labor as the input most critical for survival and success;” and (5) *public/private roles*. By comparison, the World Bank (2011, 1) argued some 12 years later that “the driver of development will ... ultimately be what individuals *learn*, both in and out of school, from preschool through the labor market.” The drivers include *changing demographics*, *increasing urbanization*, the “stunning rise of new middle-income countries,” and “incredible advances in information and communications technologies changing job profiles and skills demanded by labor markets” (World Bank 2011, 2). This is necessary to accommodate the structure of the new economy, as Castells (2005, 18)

² See Castells (2005,4) for the acknowledgment that knowledge and information have always been central to all historically known societies. Elsewhere, he argues “a society in which information is an essential source of wealth and power, I doubt there is any society in history that escapes this characterization” (Castells 2004, 221).

notes: “education based on the model of learning to learn along the life cycle, and geared towards stimulating creativity and innovation in the ways and goals of applying this learning capacity in all domains of ... life.” While *democratization*, *globalization*, *market economies*, and *public/private roles* are no longer explicit, their importance is still implicitly recognized throughout the strategy.

The World Bank (1999, 14) also previously emphasized that *decentralization* highlights “weaknesses not only in central governments, but in sub-national layers of government and in schools themselves” and raising “questions about the distribution of functions between central and local administrations, the implications for quality and equity, and how to strengthen administrative and planning capacities at all levels of the system.” By comparison, the World Bank (2011, 2) later positioned itself as active *within* the decentralized system: “the Bank has not stood still. ... It has moved closer to client countries by decentralizing its operations with 40 percent of staff now in country offices.” In this regard, the updated strategy provides an expanded definition of what is meant by *education system*, which includes three elements: the “full range of formal and non-formal learning opportunities [whether inside or outside formal education institutions]”; all “beneficiaries and stakeholders [including students and trainees, their families and communities, and employers “whose taxes, collective choices, and ‘voice’ can be potential forces for improving how the system works”]”; and “several core policy domains that correspond to the various system functions and together keep it running” (World Bank 2011, 31).

This integration of the World Bank within education systems follows discursive shifts in the use of the term *client* in the two documents: in the 1999 document, the word *client* appears 130 times, while in the 2011 document it appears seven times. Additionally, the World Bank (1999, 27) initially referred to the term *relationship* only three times: the “Banker-borrower relationship;” the “relationship between client and The Bank” (World Bank 1999, 35); and the “complex relationships between education and other sectors” (World Bank 1999, 43). However, World Bank (2011, 30) later positioned itself within education systems, in “relation-

ships of accountability” with other stakeholders.³ It is in these terms that the World Bank conceives of education systems as *networks*.

Still, the World Bank’s strategies lack detailed accounts of the nature and operation of networks. The World Bank’s *education system* is conceived of as a network, while Karl Marx (interpreted by David Harvey), Manuel Castells, and Gilles Deleuze and Felix Guattari provide analytical frameworks for equivalent systems: Castells’ (2010) *network society* is composed of networks (Castells 2005 5); Deleuze and Guattari’s (1987) *assemblage* (or *rhizome*) is described in terms of networks (Bonta and Protevi 2004, 54); and Marx’s *six moments* are likened to an assemblage (Harvey 2010, 196). These theorists are from disciplines as varied as philosophy, psychoanalysis, sociology, and political economy, though all can be traced back to Marx. While the literature search yielded numerous relevant concepts for comparison, these three seemed to be the *most* relevant as well as having the greatest potential for generating new insights.

Karl Marx’s Six Moments

World Bank conceptions of organization are evolving in a particular direction, one I am arguing is shaped by neoliberalism and globalization. However, organizational forms are not random, but rather embedded in a particular complex of ideas and social relations. To understand this, Karl Marx provides a good starting point. Marx provides a description of how technology mediates all of our relations, highlighting in particular our relation with nature. In a footnote to *Capital*, Chapter 15, Marx writes:

Technology *reveals* the active relation of man to nature, the direct process of the production of his life, and thereby it also lays bare the process of the production of the social relations of his life and of the mental conceptions that flow from those relations. [Marx 1990, 493fn4, emphasis added]

In one sentence, Marx links six elements or moments: technology; the relation to nature; the actual process of production; the production and reproduction of daily life; social relations; and mental

³ See World Bank (2011, 30) for a visual networked representation of these relations.

conceptions (Harvey 2010, 192). Crucially, rather than being thought of as nodes within a relational network, these describe the content of the relations of that network. In other words, we have six lenses or dimensions through which to consider the relational dynamics of networks.

Harvey (2010, 193) argues that Marx is saying that “technologies and organizational forms *internalize* a certain relation to nature as well as to mental conceptions and social relations, daily life and the labor process.” However, no one moment prevails over the others, their relations are dialectical, and each is internally dynamic. Both technologies and organizational forms are included here, the latter falling within the moment of social relations. We can study their evolution from the perspective of one of the moments, or we can examine interactions among them (such as transformations in technologies and organizational forms in relationship to social relations and mental conceptions), but we must recognize that all these moments co-evolve and are subject to perpetual renewal and transformation as dynamic moments within the totality (Harvey 2010, 192-195).

Manuel Castells’ *Network Society*

Further important insights come from Manuel Castells, insights which together comprise a commentary on the knowledge economy. Castells (2005, 7) defines the *network society* as “a social structure based on networks operated by [ICT] based in microelectronics and digital computer networks that generate, process, and distribute information on the basis of the knowledge accumulated in the nodes of the network.” This description mentions two important components: the network and nodes. A *network* “is a system of interconnected nodes” while *nodes* are “the points where the curve intersects itself” (Castells 2005, 7). Networks structures are open and evolve by adding or removing nodes. This is done according to the changing requirements of programs, decided socially from outside the network, assigning performance goals to the networks (Castells 2005, 7). Networks are flexible and adaptive due “to their capacity to decentralize performance along a network of autonomous components, while still being able to coordinate all this decentralized activity on a shared purpose of decision-making” (Castells 2005, 4).

According to Castells (2005, 4), the network is an old form of social organization and “the most adaptable and flexible organizational forms.” Castells also notes that the network society “already configures the nucleus of our societies ... [as] studies show the commonality of this nucleus across cultures, as well as the cultural and institutional differences of the network society in various contexts” (Castells 2005, 6). However, networks historically had thresholds of size, complexity and velocity. Digital networking technologies allow networks to overcome these limits, meaning that networks, as modes of social organization, are more effective, particularly in facilitating global capital movement – a primary driver of education reform (World Bank 1999).

Deleuze and Guattari’s (*Rhizomatic*) *Assemblage*

Finally, Deleuze and Guattari (1987) develop new categories – or modes of activity – that serve as maps of new territories, that make new connections, and which draw new lines of development. They are often taken from other fields (the ‘territories’ in which they were defined) and are rethought to outline heterogeneous territories (in Deleuzoguattarian terms, a process of *detritorialization* and *reterritorialization*). However, a key to understanding Deleuze and Guattari can be found through thinking through the distinction between trees (arborescence) and rhizomes (rhizomatic).

The tree is one of the most prevalent images in the world and is used in social forms, directly or indirectly, to trace hierarchies: bureaucracies, democracies, genealogies, etc. (Deleuze and Guattari 1987, 15-18). A rhizome, on the other hand, is a decentered multiplicity or network with six characteristics: *connection* (all points are immediately connectable); *heterogeneity* (rhizomes mingle signs and bodies); *multiplicity* (the rhizome is ‘flat’ and immanent); *asignifying rupture* (the line of flight enables heterogeneity-preserving emergence or consistency); *cartography* (maps are necessary to follow rhizomes); and *decalcomania* (not a model like a tree, but an ‘immanent process’) (Deleuze and Guattari 1987, 7-14). The essential quality of the rhizome is its “flatness:” its constitutive bodies can move in novel ways from point to point without going through hierarchical steps or imposed barriers. A rhizome cannot be eradicated completely because it has no

centralized organization: it has multiple “lines of flight,” so escaping forces can always re-establish themselves elsewhere to form new rhizomes (Bonta and Protevi 2004, 136-137). For example, the Internet is a rhizome that allows non-hierarchical worldwide actions whose instantaneous communication allows flat connectivity, bypassing movement through a command structure, in a completely decentralized community of users. While trees are opposed to rhizomes, any actual system is always subject to intensive forces moving in the opposite direction (Bonta and Protevi 2004, 52-53). In other words, the roots of trees (hierarchies) are always beset by rhizomatic growths, while rhizomes (consistencies) are always prone to take root and develop centralizing hierarchies.

There are many new categories in Deleuze and Guattari (1987) that make use of this distinction between rhizomes and trees. For the sake of brevity I am focusing on assemblages and territories.⁴ An *assemblage* is an intensive network or rhizome while a *territory* can be understood as a system of habits or the conditions for repeatable patterns of behaviour. A *territorial assemblage* links bodies (material systems that are themselves assemblages of organs at a lower level of analysis) and signs (triggers of change in those systems) as content and expression to form territories. It results from reterritorializations that accompany deterritorializations. Deterritorialization describes the complex process by which bodies leave a territorial assemblage following the lines of flight that are constitutive of that assemblage and ‘reterritorialize,’ that is, form new assemblages. The line of flight is the threshold between assemblages or the path of deterritorializations. Reterritorialization is the process of forming a new territory, or new assemblage, following (and always together with) deterritorialization. Deterritorialization is the process of leaving home, of altering your habits, of learning new tricks. Deterritorialization and reterritorialization represent the conditions under which certain sections of human populations develop new fundamental behaviour patterns (Bonta and Protevi 2004, 54, 106-107 and 136).

⁴ See Deleuze and Guattari (1987), especially pages 141-142, 333, and 457, for descriptions of the mediating roles that machines and abstract machines play between assemblages and territories.

Evaluating Insights

Step 6 involves evaluating insights. First, the dialectical mode of thinking is central to understanding Marx. Allman (1999, 52) explains a dialectic “as a unity of opposites,” which “involves conceptualizing it as composed of two parts that are necessary to each other because they could not exist as they currently do without each other.” Dialectical thinking has an historical dimension that focuses on understanding the internal nature of the relations between entities, or the unity of opposites: the way in which relations regulate the development, shaping, and reshaping related entities (Allman 1999, 63-64). Dialectical relations may be external (inter-relations), such as the interaction between different categories, or internal (inner-relations), such as relations within categories. Since the work of Castells and Deleuze and Guattari is deeply engaged with Marx (Castells 2005, 7; Bonta and Protevi 2004, 197 note 22), their concepts must also be understood *dialectically*.

Second, Marx, Castells, and Deleuze and Guattari are all aligned against technological determinism. Castells repeatedly emphasizes that technology does not determine society (Castells 2004, 221; Castells 2005, 3; Castells 2010, 5). While society shapes technology according to the needs, values, and interests of its people, technology is a necessary *though not sufficient* condition for the emergence of a new form of social organization. Harvey (2010, 192) similarly argues that technological determinism is inconsistent with Marx’s dialectical method. The six moments are “like an ecological totality ... of moments coevolving in an open, dialectic manner” (Harvey 2010, 196). They arise out of our social relations and concretely arise in response to the practical needs of daily life or of labour processes but a danger is to see one of the elements as determinant of all the others. Major transformations (such as the movement from the national state to the network state) occur through a dialectic of transformations across all the moments (Harvey 2010, 195-196). Acknowledging that technology does not *determine* society, “we also know that without specific technologies some social structures could not develop” and “only under conditions of the recent wave of [ICT] could networks ... address their fundamental shortcoming: their inability to manage coordination functions beyond a

certain threshold” (Castells 2004, 221). The network society, and the knowledge economy, or what Deleuze and Guattari refer to as an assemblage (or rhizome), is an expression of the interaction between the new technological paradigm and the most adaptable form of social organization. Crucially, however, a *determinist* understanding would hold that new technology *causes* new forms of social organizations; a *dialectic* understanding holds that technology and social organization exist in relation to each other and, in concert with the other moments, change occurs simultaneously within and between humans, technologies, and the surrounding environment.

While these concepts from Marx (though Harvey), Castells, and Deleuze and Guattari do not specifically concern education systems, we may take the concept of “discipline” as an example of the Deleuzoguattarian *abstract machine*, which lays out what an assemblage can be made out of and what it can do (Deleuze and Guattari 1987, 141-142). In Deleuzoguattarian terms, discipline “takes as its unformed matter ‘any human multiplicity’ linked to the nonformal function: ‘impose any conduct’” (Bonta and Protevi 2004, 48). Using Castells’ terminology, discipline is the program – decided outside the network – that sets the logical parameters of the network. In Foucauldian terms, discipline is one of “two poles of development linked together by a whole intermediary cluster of relations” (Foucault 1990, 139). The two poles include the disciplinary power, centering on the individual, and a second pole Foucault refers to as biopower, focused on regulating the population. Each of these two poles are important to understanding the wider implications of the use of networks, but the disciplinary pole tells us more about the interaction of the network and its stakeholders (students, parents, governments, etc.).⁵ Networks essentially refer to invisible forces that can be stronger or weaker but most importantly rearranged – understanding networks in terms of discipline is absolutely essential to understanding the significance of adopting a networked education system. This has to do with the way in which society is organized – or is *becoming* organized.

⁵ See Foucault (2007, 27 and 67-69) for a longer discussion of discipline’s function of bringing about individualization among human multiplicities.

The World Bank strategy to *network* education follows the adoption of networks in other social, political, and industrial structures. While education is not inherently disciplining, discipline has historically been a function of schools, among other institutional settings (e.g., prisons, hospitals, military barracks). However, maintaining institutionalized, state-centered learning only remains useful to the extent that it remains useful to the movement of capital. Discipline was reinforced, on the one hand, by industry through a demand for specialists and, on the other hand, by the recruitment of students by universities into *disciplines* (Repko 2012, 46-48). If we can say that the disciplines emerged at the outset and in the service of capitalism, the increased specialization of the disciplines can be seen parallel with, and perhaps as a consequence of, the division of labour in the capitalist movement. In a knowledge economy, the World Bank has an interest in advancing a new form of discipline “by actively producing the social situations the model assumes: normalization of behavior by making people behave in individual self-interest (due to lack of social interaction / social security)” (Bonta and Protevi 2004, 199 note 37). Educational policy, based on the model of life-long learning, is central to “the entire process of social change” (Castells 2005, 18). This is how the education system will produce the type of human beings needed by the knowledge economy. In other words, the education network overlays the knowledge economy, and the students/workers are conditioned to have greater flexibility and mobility to move within the education network/knowledge economy.

The World Bank is advocating a move away from government-directed, institutionalized learning, towards a student-centred model making use of self-learning tools that can be facilitated by anyone, at any time, in any setting. To be sure, the World Bank (1999, 17) notes “governments have become dominant in education only in the last century or two, after eons when humanity educated its young without formal schooling.” Elsewhere the World Bank argues “there is no *a priori* reason for all education to be publicly provided, funded and managed” (World Bank 1999, 34). We see this same sentiment when we consider a recent statement by UNESCO encouraging “partnerships between the world of education and that of business and indus-

try ... in view of promoting a variety of arrangements that allow education and training to interact with the world of work” (Tawil and Cougoureaux 2013, 2). The World Bank acknowledges that the State’s *recent* role in education has extended basic literacy and numeracy skills to huge sections of populations that might not have otherwise benefited. Nevertheless, the World Bank is making a case for moving towards a decentred model, with policy and curriculum decisions taking place away from, and with a reduced influence of, the State.

Identifying Conflicts and Finding Common Ground

Step 7 compels us to identify conflicts between insights and their sources. One constructs a more comprehensive understanding or theory from a set of modified concepts or theories, which is dependent on the creation of common ground completed in Step 8. Repko (2012, 382) suggests “a more comprehensive understanding is the integration of insights to produce a new and more nuanced whole.” Finding common ground between concepts, theories, or assumptions is essential for interdisciplinary research because it is a prerequi-

site to producing an integrative outcome in Step 9. Crucially, interdisciplinarity does not claim to achieve holism but rather strives towards it. Interdisciplinarity does not necessarily result in the right or a perfect understanding, the recognition of multiple partial perspectives contributes to an improved understanding.

Here we can do no more than create a preliminary sketch. Table 1 shows the result, in schematic form, aligning each of the concepts – and relating them to the World Bank’s education system – using Marx’s six moments as a guide.

The goal with this table is to illustrate an integrated understanding of the World Bank’s *education system* and in the context of a more comprehensive understanding of globalization. In this instance, I am starting from the position that Marx’s account (through Harvey) is the *most* complete representation of the system, understanding that Marx’s six moments describe the content of network relations – a cross-section of a single relation-bundle, or the multiple relations between nodes. The table describes how these six moments are expressed by the other network conceptions. Notably, modes of *reproduction* (of the species) are not explicitly

Table 1: Concepts Relevant to the Decentralizing (Networking) Property of Globalization

| Six Moments (Marx/Harvey) | Network Society (Castells) | Machine/Assemblage (Deleuze & Guattari) | Education System (World Bank) |
|--|--|---|--|
| Mental Conceptions of the World | Network States, Economies, etc. | Signifying regimes | Washington Consensus / Globalized Market Economy |
| Technology | Information & Communication Technology | <i>(Non-specific)</i> | Information & Communication Technology |
| Social Relations | Networked | Rhizomatic (Networked) | Networked |
| Modes of production | Flexible Workers | Deterritorialization and Reterritorialization | The production of new (flexible) human beings |
| Relation to nature | <i>(Non-specific)</i> | Assemblages (Rhizomes) | <i>(Non-specific)</i> |
| Dialectic (inter/inner-relations) | Dialectic (inter/inner-relations) | Dialectic (inter/inner-relations) | Causalities (external relations of accountability) |

covered in any of the descriptions in this paper but mobility/flexibility is assumed to be implicit to families/reproduction in the knowledge economy. This might include spouses/partners living far from each other, and persons (particularly women) delaying or foregoing marriage/pregnancy in favour of work.

There are a variety of ways in which “common ground” can be found between disciplines, such as by directly modifying concepts or theories, or indirectly via their underlying assumptions (Repko 2012, 321). In this case, common ground can be organized around the concept of the *network* with which each of the concepts I consider is concerned. Castells (2004, 222) claims, the *network society* is the structural foundation for what is described as globalization. Castells’ account also serves as a mirror to the policy prescriptions of the World Bank. In other words, the *network society* is a commentary on the *knowledge economy*. Thus, by extending Castells’ theory of the network via Marx and Deleuze and Guattari, it will be *as if we are extending the World Bank’s account of the education system*: to more fully describe, and therefore critique, Castells’ *network*; and to see in what respects this account may be incomplete.

If Table 1 is accurate, there are two obvious shortcomings to Castells’ account. The first is that it does not consider the network’s relation to the natural world – or how the natural world and the other *moments* of the education system give rise to and transform each other (if understood dialectically). The second is that, while it accounts for modes of production and the reproduction of life, these are partial accounts, as they do not provide details on the inner workings of either. Fully recognizing the World Bank’s mental conception of an emergent knowledge economy, we can come to a more comprehensive understanding of the workings of the education system as a *network* if we take Castells’ description of the network, combine with it the recognition of *rhizomatic combinations* with the natural world, the processes of *deterritorialization* and *reterritorialization* within the accounts of modes of production and the reproduction of life, and recognize the dialectic relations between each moment of the assemblage. In other words, the World Bank envisions an education system that prepares workers for a knowledge economy, but it does not provide an adequate account of how the

knowledge economy, how organizational forms, how mental conceptions, how technologies, or how the natural world will change in step with the education of workers. An account of the relations within and between each of these moments will sketch a more comprehensive map of where we are, what our patterns of behaviour look like now and how they are changing (at home, while learning, in production, and in reproduction), and where we might be headed.

Conclusion

Step 10 requires that we produce an interdisciplinary understanding and test it. Repko (2012, 410) identifies “two broad purposes” served by this reflection: to guide researchers to add material to conclusions; and to inventory what is learned from the IRP that can be applied in future projects or other complex problems of life. For example, this framework could be applied to discourses about education reform in developing countries. For example, in Myanmar, Dr. Thein Lwin, in his capacity as a spokesperson for the National Network for Education Reform, has been vocal, saying that “the only hurdle is centralization. Only when that hurdle is cleared, an education system that satisfies the aspirations of the people can be implemented” (Zar 2014). However, this is also just one example of a possibility for critiquing globalization through the lens of education reform. More generally, what has been outlined is a beginning point, a potential framework for understanding the use of networks and their decentralizing function as one component of globalization. What this paper provides is an expanded sense of the capabilities of networks.

What this paper *does not* consider is the unequal power between and within the nodes of the network. The way in which the World Bank portrays the networked education system is such that governments, parent-teacher associations, civil society organizations, corporations, and other stakeholders will be equal. However, while the government of a “developed” country like the United States may not have difficulties curtailing aggressive education changes introduced by corporations in a decentred system, a “developing” country like Myanmar may cede practically all control over policy and curriculum. An understanding of the relative power imbalance should challenge any mis-

conceptions of equality. There is a growing body of empirical and experiential literature that can confirm this.⁶

Moreover, the ways in which modes of reproduction are changing *in relation to* the networking of systems of education and work are important considerations. According to the six-moment configuration, there will be significant corollary changes *in relation to* production, technology, and between individuals, as well as how we mentally conceive of the world and our places in it. As the relations are dialectic the changes will also reinforce new direction in the employment and work network configurations that may be as yet unconsidered.

This paper began as an examination of the trend towards decentralization and privatization in education, but the approach taken also provides new insights for understanding globalization more widely. The use of networks and ICT, in particular, needs to be understood within the context of globalization. This approach may prove useful for understanding the consequences of new technologies and organizational forms in other areas of human existence. But this is just an entry point – a first step towards understanding how globalization and neoliberal reforms are contributing to radical transformations in social relations. A more comprehensive appreciation will only be possible by taking this and other components of globalization and combining these partial perspectives to create a more coherent whole.

References

- Allman, Paula. *Revolutionary Social Transformation*. Westport, CT: Bergin & Garvey, 1999.
- Angus, Ian. "The University as Institution and Idea." *English Studies in Canada* 38, no. 1 (March 2012):21-25.
- Bergeron, Susan. "Shape-shifting Neoliberalism and World Bank Education Policy: A Response to Steven Klees." *Globalisation, Societies and Education* 6, no. 4 (November 2008):349-353.
- Bjork, Christopher. (Ed.). *Educational Decentralization: Asian Experiences and Conceptual Contributions*. The Netherlands: Springer, 2006.
- Bonta, Mark, and John Protevi. *Deleuze and Geophilosophy: A Guide and Glossary*. Edinburgh: Edinburgh University Press, Ltd., 2004.
- Brydon, Diana. "Globalization and Higher Education: Working Toward Cognitive Justice." In *Valences of Interdisciplinarity: Theory, Practice, Pedagogy*, edited by Raphael Foshay, 97-120. Athabasca, AB: Athabasca University Press, 2011.
- Castells, Manuel. "Afterward: Why Networks Matter." In *Network Logic: Who Governs in an Interconnected World?*, edited by Helen McCarthy, Paul Miller, and Paul Skidmore, 219-225. London: Demos, 2004.
- Castells, Manuel. "The Network Society: From Knowledge to Policy." In *The Network Society: From Knowledge to Policy*, edited by Manuel Castells and Gustavo Cardoso, 3-21. Washington, DC: Johns Hopkins Center for Transatlantic Relations, 2005.
- Castells, Manuel. *The Rise of the Network Society*. 2nd ed. West Sussex, UK: Wiley-Blackwell, 2010. (Original work published 1996)
- Chang, Ha-Joon. "Hamlet Without The Prince of Denmark: How Development Has Disappeared From Today's 'Development' Discourse." In *Towards New Developmentalism: Market as Means Rather Than Master*, edited by Shahruxh Rafi Khan and Jens Christiansen, 47-58. New York: Routledge, 2011.
- Collins, Betty. "E-Learning and the Transformation of Education for a Knowledge Economy." In *The Network Society: From Knowledge to Policy*, edited by Manuel Castells and Gustavo Cardoso, 215-223. Washington, DC: Johns Hopkins Center for Transatlantic Relations, 2005.
- Daun, Holger. *School Decentralization in the Context of Globalizing Governance: International Comparison of Grassroots Responses*. The Netherlands: Springer, 2007.

⁶ See, e.g., Bjork (2006) and Daun (2007) for discussions on experiences from the Global South with decentralization in education.

- Deleuze, Gilles, and Felix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi. Minneapolis: Minnesota UP, 1987. (Original work published 1980)
- Foucault, Michel. *The Archaeology of Knowledge and the Discourse on Language*. Translated by A. M. Sheridan Smith. New York: Pantheon, 1972.
- Foucault, Michel. *The History Of Sexuality, Volume 1: An Introduction*. Translated by Robert Hurley. New York: Vintage Books, 1990. (Original work published in 1978)
- Foucault, Michel. *Security, Territory, Population: Lectures at the Collège de France, 1977-1978*. Translated by Graham Burchell. London: Palgrave Macmillan, 2007.
- Guttal, Shalmali. "Globalisation." In *Deconstructing Development Discourse: Buzzwords and Fuzzwords*, edited by Andrea Cornwall and Deborah Eade (Eds.), 69-79. Warwickshire, UK: Practical Action Publishing, 2010.
- Harvey, David. *A Companion to Marx's Capital*. New York: Verso, 2010
- Holst, John. "Globalization and the Future of Critical Adult Education." In *Global Issues Aand Adult Education*, edited by Sharan B. Merriam, Bradley C. Courtenay, and Ronald M. Cervero, 41-52. San Francisco: Jossey-Bass, 2006.
- Klees, Steven J. "A Quarter Century of Neoliberal Thinking in Education: Misleading Analyses and Failed Policies." *Globalisation, Societies and Education* 6, no. 4 (November 2008): 311-348.
- Marx, Karl. *Capital: A Critique of Political Economy*, Volume 1. Translated by Ben Fowkes. London: Penguin Classics, 1990. (Original work published 1867)
- Repko, Allan F. *Interdisciplinary Research: Process and Theory* (2nd ed.). Thousand Oaks, CA: SAGE, 2012.
- Stiglitz, Joseph E. *Making Globalization Work*. New York: W. W. Norton & Company, 2006.
- Szostak, Rick. "Integrating Interdisciplinary Studies Across the Humanities and Social Sciences." In *Valences of Interdisciplinarity: Theory, Practice, Pedagogy*, edited by Raphael Foshay, 165-188. Athabasca, AB: Athabasca University Press, 2011.
- Tawil, Sobhi, and Marie Cougoureux. "Revisiting Learning: The Treasure Within: Assessing the Influence of the 1996 Delors Report." *UNESCO Education and Research: Occasional Papers*. Paris: UNESCO Publishing, January 4, 2013. <http://unesdoc.unesco.org/images/0022/002200/220050e.pdf>
- UN Educational, Scientific, and Cultural Organization (UNESCO). *World Declaration on Education For All: Meeting Basic Learning Needs*. 1990. Accessed 30 March, 2019. <http://unesdoc.unesco.org/ark:/48223/pf0000127583>
- UN Educational, Scientific, and Cultural Organization (UNESCO). *Consultation Meeting On Education For Migrant, Ethnic Minority And Stateless Children*. 2014. Accessed 30 March, 2019. <http://www.unescobkk.org/education/literacy-and-lifelong-learning/meetings-and-conferences/consultation-meeting/>
- World Bank. *Education Sector Strategy*. Washington, DC: The International Bank for Reconstruction and Development, 1999. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:20201588~menuPK:282402~pagePK:148956~piPK:216618~theSitePK:282386,00.html>.
- World Bank. *Lifelong Learning in the Global Knowledge Economy: Challenges For Developing Countries*. Washington, DC: The International Bank for Reconstruction and Development, 2003. http://siteresources.worldbank.org/INTLL/Resources/Lifelong-Learning-in-the-Global-Knowledge-Economy/lifelonglearning_GKE.pdf.
- World Bank. *Learning for All: Investing in People's Knowledge and Skills to Promote Development* ["World Bank Education Strategy 2020"]. Washington, DC: The International Bank for Reconstruction and Development, 2011. http://siteresources.worldbank.org/EDUCATION/Resources/ESSU/463292-1306181142935/WB_ES_ExecutiveSummary_FINAL.pdf.
- Zar, Thu. (2014, November 20). 'I Consider Nothing to Have Changed.' *The Irrawaddy*. Retrieved from: <http://www.irrawaddy.org/interview/consider-nothing-changed.html>.