Innovation, Scale and Disruption to Advance Equity in Education.

Fernando M. Reimers

Harvard University

Reimers. Innovation, Scale and Disruption to Advance Equity in Education. UNICEF, *The State of the World’s Children 2014: Innovation for Children, Innovation for Equity* (forthcoming November 2014)

### Over the last sixty years the world has witnessed one of the most remarkable transformations in human history: the universalization of the right of education. This transformation was the result of a social innovation, the Universal Declaration of Human Rights, a charter that in thirty articles spelled out the basic human rights that would lay the foundation for global peace and security, and that committed all nations endorsing the charter to collaborate towards the achievement of those rights as a means to sustain peace and security. Institutional innovations, namely the creation of the United Nations organizations, advanced these rights to a great extent, engaging in advocacy and the diffusion of ideas about means to achieve them. For example, in the 1950s the United Nations Education, Science and Culture Organization, convened regional meetings of Ministers of Education and Finance, to make the case for universal primary education. Those meetings served not only to broker political agreements but to exchange know how and to develop other technical assistance activities that disseminated good practices about how to achieve those goals. Ideas such as how to use double shifts in schools to more intensely use facilities and more rapidly expand access, or ideas about organizing multigraded schools to provide a full cycle of primary education in rural areas with one or a few teachers, or ideas about how to organize schools in clusters, as a way to support professional development and to share resources, are examples of the kind of intellectual repertoire that helped advance the goal of education inclusion.

### From the outset, the international education organizations which emerged as part of the post-world war order to promote development aimed to influence education policy, to leverage government resources, not to substitute for those. The goal of the identification and dissemination of good education practices has been not just about supporting their replication, but their strategic deployment to disrupt, to transform, the policy and programming status quo so they can, at scale, support greater educational opportunities that lead to equity. For instance, beginning in the 1980s, international education organizations, including UNICEF, began to advocate for greater learning opportunities in early childhood education. Until then, for most of the world, the right to education was understood to begin at the age when children began elementary education. The Jomtien Declaration of Education for All, adopted at the World Conference for Education for All, included early childhood education as one of the targets of the renewed efforts to promote universal education. As a result, many governments expanded early childhood education opportunities. In Mexico, for example, in the year 2000 Congress modified the law of education to guarantee three years of preschool for every child. Similar policies expanding early childhood education opportunities, a clear result of the emerging consensus on the importance of this intervention to foster child development facilitated by international development institutions, have resulted into clear gains in educational opportunities for disadvantaged groups. In this case, international development institutions such as Unicef or Unesco have played the role of knowledge brokers, disseminating scientific evidence making the case of how much development takes place in the early years of life as well as disseminating studies of programs that work to advance early childhood, as well as the role of policy advocates, directly making the case for the moral imperative to provide public support for policies and programs that are aligned with the broader aspirations set out in global compacts such as the Universal Declaration, or the Convention of the Rights of the Child, or similar international legal frameworks. A key role played by international development institutions in support of early childhood education policy and programming, was the identification, documentation and evaluation of programs, the study of ‘what works’ for without this clarity about what was the ‘next step’ the urgency generated mobilizing the scientific evidence about the critical importance of development in the early years and the moral imperative would not have led to governmental commitment to doing something about this need or challenge. Unicef’s office of research, for instance, has produced multiple examples of this kind of work, such as a study of Mexico’s programs in early childhood education (Bub, K. et al. 2007.)

Education progress is thus the result not only of advocacy making the case for the powerful effects of education, or the moral argument for inclusion, but also of effective use of knowledge about ‘what works’ which can frame the opportunities for educational inclusion into a tractable problem, into an opportunity that government leaders perceive can be reasonably addressed within the constrains, institutional, resources and political, that shape government action. In this sense, educational inclusion has been the result of educational innovation, of getting governments to take on a new challenge, and to undertake new actions to address it. Such innovation does not typically take place in a void, with governments attempting to tackle a problem as if they were the first group of people on the planet to attempt it, but rather is inspired, informed and supported by previous or similar attempts elsewhere. Much of the legitimacy of the international development institutions rests on their perceived ability to act as brokers of such knowledge and on their expertise to manage the process that translates such knowledge into programs that can achieved the scale desired by governments in ways that are sustainable.

This strategic use of ideas about education practice developed in some cultural contexts, to stimulate innovation and action in other contexts dates to the years following the French Revolution, when many nations were instituting public education systems, often as part of a range of reforms aimed at consolidating a more democratic political order. Marc Antoine Jullien, a journalist who lived during the French Revolution, was the first person on record to propose that systematic attention should be given to the deep study of educational practice and experiences across borders, as a way to help emerging democratic nations in Europe figure out how to build public education systems. Jullien was an admirer of the education system created by Henry Pestalozzi, a system he studied and documented. Jullien also created a publication to engage various educators in discussion about alternative ideas on how to educate children. He was, in effect, the first comparativist, someone who proposed that a global education network could be built for the explicit purpose of supporting efforts to improve education around the world, as a result of the transfer of educational experiences. Jullien proposed also, but never implemented, what should have been the first comparative survey of education, a systematic effort to survey how various districts and authorities were organizing schools, who attended, how they were grouped, who taught, what they were taught.

In North and South America, the leaders of the political revolutions that led to the creation of independent republics in the nineteenth century also engaged in comparisons, borrowing and exchanging ideas not only about how to make the institutions of democracy work, but also about how to create educational institutions that prepared citizens for self-rule. Francisco de Miranda, one of the leaders of the independence movement in South America, spent two years travelling in the United States and studying the institutions of the new nation, including visits in 1784 to Ezra Stiles, President of Yale, and James Lloyd, President of Harvard Universities, to discuss the role of educational institutions in promoting an enlightened order.

In his visit to London in 1810 Simon Bolivar, a leader of the South American independence movement, visited with Joseph Lancaster at the request and in the company of his former tutor Andres Bello. Professor Joseph Lancaster had devised a low cost system for the education of the children of ordinary people (a novel idea at the time), the monitorial system of education. In 1808 Lancaster and his followers had created the *Society for the Promotion of Education of the Poor*, and through it disseminated this educational approach that was central to the first attempts to systematically prepare people for the teaching profession (some of the principles of Lancaster method live still in the methodologies of multigraded instruction which allow one or a few teachers to teach a complete primary education in many rural schools around the world). Lancaster himself travelled widely in the Americas, living in Venezuela between 1825 and 1827, at Bolivar’s invitation, to create the first teacher education school in that country. Lancaster gave also a series of lectures in the east coast of the United States, several decades before Horace Mann launched his campaign for public education in Massachusetts.

In 1804 John Quincy Adams, the United States sixth president, published his ‘letters on Silesia’ about the public schools established in the region that is now part of Germany, Poland and the Checz Republic. And in 1843, as Secretary of Education, Horace Mann, visited Prussia to inform his thinking about how to strengthen public schools, in his view the wheel of the social machinery, that would equip children of an already diverse country, to develop the skills, and the trust in one another, to make democracy work in the actions of ordinary citizens.

Horace Mann’s wife, Mary Tyler Peabody, in her extensive correspondence with Domingo Faustino Sarmiento, the argentine educator whose ideas provided the foundation of public education in South America, played also an important role in facilitating the transfer of experiences between Massachusetts, where Sarmiento first met her in 1847 when he came to discuss the recently published ‘the Common School’ with Horace Mann, and Argentina, where Sarmiento eventually became President.

Over the centuries in which educational good practices have been ‘transferred’ from one context to another, significant progress has been made in recognizing that not all ideas and practices ‘transfer well’. Accordingly, international development institutions have advanced from engaging in what was initially mere documentation and diffusion of ‘good practices’ to the creation of communities of practice, where policy makers and practitioners can devote the time to understand such practices in their context, and to figure out the necessary adaptations to transfer these practices. In diffusing education practices for adoption in diverse cultural settings a frequent problem is determining which of these elements were context dependent and what kind of adaptations should be made in transferring educational innovations across contexts. For example, many efforts have been made to transfer curricular approaches from one setting to another, for example a curriculum to support literacy instruction or science education or math education. In many cases to discover that different cultural conditions, institutional settings, levels of teacher capacity, caused the same curriculum to produce very different results, think for instance of the failure of Outcomes Based Education in South Africa to produce the much expected improvements in instructional quality in schools serving disadvantaged children which education leaders hoped would help consolidate the political gains of the democratic transition in that country. To overcome these challenges with the transfer of educational innovation some colleagues and I developed an approach to systematically adapt innovations to new contexts, and to define transfer as a process of re-design and re-invention, rather than simple adoption, articulating the theory of action of the innovation in such a way that it makes the transfer susceptible to been systematically evaluated (Reimers, Cooc and Hashmi, 2012).

A challenge of the conventional approach to identify and disseminate good education practices is how to capture the innovation that is taking place globally. Global knowledge networks become stale and irrelevant if all they can circulate are a limited set of ideas about what works to include children. The networks of international development institutions need to become integrated with local and community network, to be porous to the innovation happening locally. This is especially important because the rate of local innovation is accelerating exponentially.

We live at a time of unprecedented opportunities for educational innovation, generated in part by the increasing levels of education of the world’s population and the resulting increase in the number of individuals who have been empowered to be producers of educational innovation. Global educational expansion has increased the number of people with the mindset, ambitions and skills to bring about innovations to tackle ambitious goals. Education entrepreneurs benefit also from new technologies, from availability of capital, from regulatory frameworks that make it easier for ordinary people –often in small groups—to take on challenges in the past reserved for governments and large international or national organizations. As a result of their efforts, the number of educational innovations is growing exponentially, everywhere. In many places teachers, individually or in groups, sometimes students, or ordinary citizens organized in non-governmental organizations at the grassroots efforts generate promising innovations to support instructional improvement and with it enhance the contributions of education to social inclusion.

Some authors have argued that there is great promise in the study of these grassroots innovations, cases of success against the odds, because identifying approaches which have been proven to work in particular social and geographic settings avoids the challenges of ‘transferring’ ideas developed elsewhere and try to get them to take root in new settings. By definition this innovations are already sustainable and adaptive, in what they emerged in the very contexts to which they should now be scaled. This concept of ‘positive deviant’ was first developed first in nutrition research as researchers identified that even in very poor communities some families had well nourished children. The study of positive deviants has been successfully applied to study local innovations in a range of domains, including education and systematized as an approach by Richard Pascale and Jerry and Monique Sternin (Pascale et al. 2010). The concept of ‘positive deviants’ has been popularized by Malcolm Gladwell in his book ‘Outliers’. There is great promise in the study of positive deviants as a way to learn from and capture the rich experience of innovation that takes place in many communities. In many ways this approach is contrary to the traditional view of development as the result of the transfer of ideas that international experts bring, often from abroad, about how to improve the inclusion, efficacy or relevancy of educational institutions.

But one can see these approaches –learning from global experience as well as from grassroot practices—as complementary, rather than as antithetical. In an era of globalization, educational innovation is Glocal, rather than purely local or global. For example, in an effort to advance educational inclusion of students with special needs in Brazil, Rodrigo Hubner Mendez, a Brazilian social entrepreneur, created an organization to advocate for policy reform and to disseminate good practices. This initiative, the Diversa project of the *Instituto Rodrigo Mendez*, identifies good practices of inclusion in Brazil and other countries, and conducts detailed case studies of those practices, which are then disseminated through various means, including a rich website as well as periodic convenings of municipal secretaries of education where Rodrigo Mendez partners with the Brazilian Ministry of Education to build the capacity of education leaders to replicate or adapt such practices of inclusion. Unicef has been a partner of these efforts of an organization of civil society blending the study and dissemination of good local and global practices of inclusion [<http://www.institutorodrigomendes.org.br/en/>]. There are many similar efforts globally to support educational innovation, for example, the organization *Edutopia*, sustains a rich portal designed to disseminate good practices in education for socio-emotional development, civic education and for student centered education and effective use of technology (http://www.edutopia.org/). Edutopia uses also various social platforms to sustain professional learning communities that can collaborate in finding ways to adapt those ideas to particular contexts, including the use of twitter to disseminate snipets with ideas to inform educational innovation.

In addition to the study and dissemination of good education practice, whether these are global practices or local ‘positive deviants’, and in addition to the different professional learning communities which can be structured to facilitate an appropriate transfer of those practices across contexts, educational inclusion could be accelerated by the promotion of innovation through improvement networks.

Improvement networks share some characteristics, but differ from professional communities of practice. Both of these have a commitment to changing practice using knowledge that is developed in the context of practice, the basic tenet of improvement science. But improvement science, and improvement networks, have a further commitment to following a systematic approach of concurrent experimentation in action across multiple sites of the network for the purpose of forming rapid cycles of improvement and learning. This is different from a research and diffusion approach, building on knowledge emerging from basic sciences, and related and inclusive of implementation science and translational research, which builds on knowledge emerging from basic science. Rather, improvement science, an emerging field in health care improvement, has a commitment to the design of innovations in practice settings, aimed at solving problems of practice, and then systematically learning from those using a common framework that defines the theories of action of those innovations and their intended outcomes. There is a growing movement in medicine, to improve medical practice in hospitals, building networks who share a commitment to building such knowledge (Kenney 2008).

In the United States, for example, under the leadership of Anthony Bryk, the Carnegie Foundation for the Advancement of Teaching is using improvement science to support and study networks of innovation focused on specific problems of practice. Carnegie supports two improvement networks, the Building a Teaching Effectiveness Network and the Community College Pathways Program, in addition to studying to improvement networks, the Mathematics Teacher Education Partnership and the Silicon Valley Research Alliance. The Community College Pathways Program, for example has focused on resolving the failure of remedial education courses in community colleges, a track into which many disadvantaged students are placed upon entry in community college which has shown very poor results in helping students transition to mainstream instruction and eventually graduate from college (Bryk 2014). The improvement networks supported by Carnegie involved educators working in community colleges in remedial mathematics, building on research about the deficiencies of these courses and on evaluations of experiments to overcome some of these deficiencies, these improvement networks commit to the goal of systematically implementing changes that follow an explicit and shared theory of action, based on the best available evidence, and then measuring the results of these efforts, in this way creating a cycle of rapid learning where each implementation is, in effect, an experiment that allows all institutions participating in the network the opportunity to learn from all these concurrent efforts.

To accelerate the process of learning from the innovations identified, designed and studied in different parts of the globe, an improvement network should develop a commitment to sharing this knowledge seamlessly across units of the network. How to get every node or member in a network to access the knowledge available to other nodes or members in the network is indeed the challenge of complex organizations. At the core of this challenge are the traditional silos and forms of organization that impede fluid communication across departments, and the fact that much of the knowledge deployed and gained by the participants in the network is tacit, and never formalized into protocols which can be accessed by others. Prior to the availability of the internet these challenges were intractable for global organizations. No longer is this the case, the challenges are now not of access to technological platforms that can make knowledge travel very fast within an organization, and collaboration possible across distance and time zones, the challenges to be overcome are of organizational culture and capacity.

References

Bryk, A. 2014. Presidential Address Annual Conference of the American Education Research Association. Philadelphia, April 2014.

Bub, K., F. Knaul, J. Lugo-Gil, K. McCartney, R. Myers, M. Ramos, and H. Yoshikawa. 2007. Early Childhood Education in Mexico: Expansion, quality improvement, and curricular reform. Unicef. Innocenti Working Papers 2007-03.

Kenney, C. *The Best Practice*. New York. Public Affairs. 2008.

Pascale, R., J. Sternin and M. Sternin. 2010. The Power of Positive Deviance. How unlikely innovators solve the worlds toughest problems. Cambridge, MA. Harvard Business Review Press.

Reimers, F., Cooc, N. and Hashmi, J. 2012. Adapting Innovations Across Borders to Close Equity Gaps in Education. In Hyman, J.S and Cassola, A. (Eds). *Lessons in Educational Equality: Successful Approaches to Intractable Problems around the World*. New York: Oxford University Press. 2012.