

ICT4D as the driver of Network Cooperation: actors, connections and collaboration in the post-2015 international development landscape

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Abstract

A renewed type of development strategy, sometimes referred as Development 2.0, is rapidly emerging. It is coherent with Sen's capabilities approach and the Human Development paradigm, and fits into to the Network Society context described by Castells. It is supported by a strong technological foundation (mainly through the extended use of ICTs), and driven by openness and innovation. Development 2.0 is 'networked development', and the future of development assistance will be to some extent marked by its trends.

The article argues that the adoption of a highly networked approach by development cooperation will be among the main required changes. It then proposes a 'Network Cooperation' scheme, with incidence over Cooperation's structures as well as processes, and emphasis on aspects such as (i) using networks as primary mechanisms for Cooperation (including at the project level), (ii) knowledge management, (iii) ICT mainstreaming, (iv) networked social capital and (v) multi-stakeholder actions. Issues of human and institutional capacities required for operating in this more complex environment, as well as the use of network analytical methods for evaluation and management purposes are highlighted. Finally, the specific incidence of the proposed scheme on various components of development systems is discussed.

Keywords

Network Cooperation; International Development; ICT4D; ICT for Development; Network Society; Human Development; Development Networks; Development 2.0

1. Introduction

During a workshop in 1999 about the integration of information and communication technologies (ICTs) for development held at the Bonn headquarters of the UN Volunteers agency, a panelist spoke of the need for '*more networking*' in order to get better results from that organization's projects. The uses of Internet and other digital technologies were at the time a hot topic for discussion in development agencies (World Bank 1999; UNDP 2001). Thinking that he might be referring to setting up some type of innovative electronic network for better communications¹, someone in the audience asked about what he specifically meant by 'networking'.

The response was vague, but it had something to do with the staff participating in a wider range of the agency's activities both in the field and at headquarters. Interestingly enough, he did not mention technologies at all, which seemed surprising. Approached during the coffee break by some participants seeking more clarity about how to achieve 'more networking' in the context of their international development assistance work, the panelist could not offer any more precise explanations. That day, those in the audience felt a sense of fuzziness about the concept of networking. If they could somehow 'network' better, they would improve their work (and thus the agency's development effects). But there were no guidelines or models; just anecdotal examples of real-life networks that could serve as references.

Unknowingly, each of the three authors of this article was starting at the time to inquire about what networking could actually mean for international development in

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operational terms. We did not know each other then, and were coming from different fronts: a consulting firm, an engineering faculty from a public university, and the aforementioned development agency. Since then, we have explored through work on development projects, institutional reforms and research activities how networking trends in development processes and development cooperation (or 'Cooperation', for short) point at profound changes to come in the development landscape.

This paper summarizes what we have learned about the implications of networks and networking for Cooperation. As a contribution to the debate on the broad topic of *the future for development assistance*, its purpose is to propose a set of attributes for a 'Network Cooperation' model that could bring about higher operational efficacy² and generate more development impact than traditional Cooperation modalities. It also discusses the effects it can have on the wider development strategies for the short and mid-term, as well as some of the none-too-small challenges for its incorporation into development organizations.

Much more work and research will be needed to rigorously test and characterize networked Cooperation approaches; in essence, we are hereby formulating open questions and advancing some ideas. But we are convinced that systematic networked Cooperation modalities will be at the core of change towards improved future development assistance systems. Besides contributing to the debate on the topic, we also hope that readers will reflect on their own experiences and think about the extent to which networking practices could help them in their present /future development activities.

Before jumping into the topic of networked Cooperation, let us briefly describe our interpretation of the concepts of networks and networking which underlie the entire discussion. Nascimbeni (2012: 69) provides a good overview of the numerous approaches and definitions about networks is, coming from fields like economics, mathematics, biology, sociology, or political science. At its most basic, a network is a set of nodes with a pattern of interconnections (Easley & Kleinberg 2010). Each node and connection can exhibit different characteristics, and in comparison with other organizational schemes (e.g. linear, hierarchical) networks typically exhibit a higher degree of flexibility, modularity and agility. For development purposes, a network can be represented as spaces where private and public organizations and individuals with common interests commit in exchange processes to pursue a common aim, acknowledging cooperation is the best way to achieve this aim (Börzel 1998).

Networks are probably best described not by what they are, but by what they do. Essentially, "*what networks do is collaborating*" (Nascimbeni 2012: 70). Drawing from

community development, Gilchrist defines networking as the process by which relationships and contacts between people or organizations are established, nurtured, and utilized for mutual benefit within a community (Gilchrist 1995). Networking involves various types of transactions (informational, resource-oriented, communicational, influential). The complexities of networking arise from the establishment of collaborative alignment of wills, capacities and resources in a fuzzy organizational environment. Specific network management approaches may ease these complexities to help in achieving the productive objectives set by the members of the network, and in generating the added-value of social capital among them.

2. Justification: redesigning Cooperation at the service of Human Development in the Network Society

Advancing towards the future of development assistance requires a clear understanding of its purposes. We ought to ask ourselves: “*what assistance, and for what kind of development outcomes?*” It is also necessary to take into account the development context, since it is the source of some of the conditions affecting how such assistance can be delivered. That will allow for the elements of a suitable Cooperation approach to emerge. The overall process/logic is sketched in fig. 1, and briefly summarized below.

We argue that the major outcome or purpose is to make progress on Human Development in the context of the Network Society. Conceptualized by Amartya Sen in the 80's and then adopted by the UN System³, Human Development elegantly refers to the expansion of choices that allow people to have healthy, purposeful and dignified lives (Haq 1995). Human Development is based on a ‘capabilities approach’ that prioritizes the increase of capabilities and opportunities as the underlying drivers for development (Sen 1999; Hamel 2010). It moves beyond previous development views centered on responding to **needs** with goods and services (income, food, medicine), towards fostering **opportunities** that are based on an individual’s agency (empowerment⁴) derived from her capacities and social environment.

The overall context is given by the ‘Network Society’, described by Manuel Castells as the social structure of the Information Age which characterizes new models of production, communication, organization and even identity (Castells 1998a). The

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structural fabric of this society is composed of social and institutional networks that use information and communications technologies (ICTs) to operate and interconnect, and which exert a substantial influence on development have a marked (Castells 2001).

A 'Development 2.0' concept is emerging from the interaction/blend between 'Human Development' and 'Network Society' (Heeks 2010a; 2010b). Development 2.0 should in fact support the successful adaptation of Human Development strategies and practices to a Network Society context. Heeks refers to Development 2.0 as "*new IT-enabled models than can transform the processes and structures of development*" (Heeks 2010b: 22). From a research perspective, Thomson observes that it "(...) *seeks a conscious and sustained dialogue between Web 2.0 models and ways of thinking, and the broader debates and structural concerns within development studies.*" (Thomson 2007: 12). The '2.0' label is not accidental or merely trendy: it highlights its participatory, networked nature, just like that of the Web 2.0 technologies and interactions (O'Reilly 2005; Thomson 2007).

This concept is not merely a theoretical construct, but has practical considerations for development work. One practical aspect is about how to re-configure Cooperation within a Development 2.0 framework, for instance favoring the implementation of projects through institutional networks. On the other hand, it can help to deliberately (and methodically) leverage Network Society instruments and institutions like knowledge networks (Denning 2002), e-learning (Peña-López 2005) or online volunteering⁵ to achieve developmental progress.

Openness and Innovation also contribute to the Development 2.0 framework. Openness promotes wider access to information and knowledge, and it increases collaborative potential⁶ (Smith & Elder 2010; Girard & Perini 2013). Innovation is a driver of the necessary changes to development practices (Kraemer-Mbule & Wamae 2010), for instance by seeking new ways of tackling problems using existing technologies⁷.

Development 2.0 thus emerges as a highly networked development approach, which in turn requires a coherent, networked Cooperation style. We address next the attributes that could respond to the needs of such Cooperation.

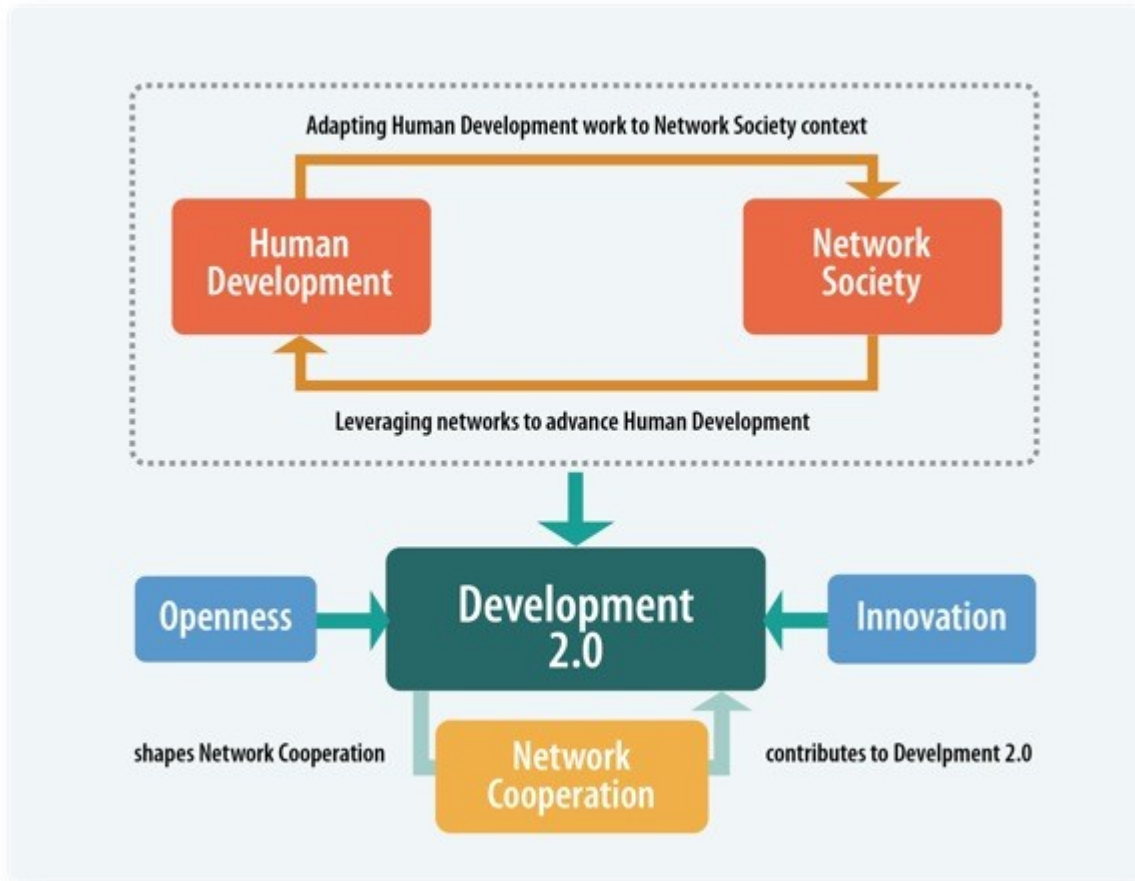


Figure 1. An interpretation of the Development 2.0 concept with its contributing elements.

3. Characterizing Network Cooperation

Cooperation is one of the mechanisms that contribute to the implementation of Human Development strategies and actions. It has also been perennially subject to controversy over its relative merits, effects and methods (Easterly 2006; Moyo 2010; Banerjee & Duflo 2010). If networking trends permeate development practices, as indicated in a renewed Development 2.0 concept, it follows they will also be incorporated into Cooperation. We believe that systematic networked Cooperation modalities will be at the core of change towards more effective and efficient

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development assistance systems. The question is how can networked Cooperation specifically be defined and incorporated into standard operational practices.

Cooperation presents certain characteristics which elevate its significance above the nominal value represented by its monetary levels. One is the experimental and catalytic nature of some of its activities, which can help stimulate larger processes later on in the targeted countries. Another is the large volume of knowledge it generates every year.

Moreover, it is a relatively controllable portion of development processes, in the sense that (i) it follows established norms and procedures, (ii) operates on a small subset of development topics in any given country, and (iii) it is simpler and normally less subject to instabilities than development work solely initiated/supported by national actors. This makes Cooperation a parcel of development work that is easier to manage, study and shape. And if we add its present size, well beyond the US\$ 100 billion per year mark⁸, it can also potentially produce significant results on aggregate terms.

Advocating a networked approach to Cooperation is not new. More than a decade ago, Fukuda-Parr & Hill (2002) claimed that networks among development practitioners and access to global knowledge systems can substitute for conventional models of technical cooperation. Nath (2000) proposed that knowledge networking need not be confined within the closed boundaries of information flows as it had the potential to evolve as an alternative institutional model for development promotion. He even suggested that if traditional Cooperation organizations are not good at managing knowledge, other actors will emerge to promote development; or as Shirky (2005) more pointedly asked: “*Collaboration or Institutions?*”

The problem is that systematic networking is proving hard to do in practice⁹. Most institutional Cooperation networks operate on a combination of instinct and commitment. The intent is to promote and expand collaboration, but there is a lack of experience and strategies that take into account the organizational characteristics specific to networked environments (Moreno et.al. 2009). At the same time, impressive networking advances have been registered in other fields like education/research, commerce, manufacturing, software development or politics (Tapscott & Williams 2008; Benkler 2006; Raymond 2001; Beas 2010). The Cooperation sector, which is in fact rooted on collaborative actions, can also make significant progress on this front if it can introduce appropriate network methodologies.

For that purpose, we propose ‘Network Cooperation’ to denote a systematic approach to development assistance based on both networked structures and processes, which promotes institutional as well as personal connectedness to achieve

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Human Development objectives (Acevedo 2009; Nascimbeni 2014). Regarding structures, Cooperation's **architecture** would be re-defined based on organizational networks with varying geometries of nodes, hubs, links and systems. With regards to process, it would involve a **re-engineering** of cooperation practices, applying network dynamics/tools to projects, management, strategies and policies to achieve developmental objectives and bring about greater opportunities for people (in health, education, income generation, governance, etc.).

There may be various ways to implement these broad transformations of Cooperation's architecture and engineering, depending on factors such as cultural and political contexts, as well as existing institutional capacities. A broad characterization of Network Cooperation would include the following attributes:

- The introduction of networks as the primary Cooperation mechanisms. This means that whether for undertaking day-to-day activities or to operationalize corporate strategies, the use of institutional, human and/or technological networks would be prioritized. For example, a network of medical organizations could be chosen to undertake a health project (e.g. promote vaccinations), or a thematic knowledge network (e.g. on deforestation) supported to help it participate in a forest conservation campaign.
- The mainstreaming of ICT into aid agencies. This implies that an array of ICTs would be integrated both into an agency's corporate tasks (internal dimension) as well as its field projects/interventions (external dimension) to improve its efficacy (Heeks 2010c; OECD 2005). The underlying goal is the simple, fast access to data/information, as well as the communication facilities, needed by its staff and partners to do their work.
- An emphasis on knowledge management. Knowledge is an abundant and usually under-utilized asset of development organizations. Knowledge management refers to various aspects (generation, processing, absorption, dissemination, etc.). Proper knowledge management practices are necessary for leveraging value from existing knowledge, and is particularly important if development activities are carried through networks (i.e. which involve more people, imply a higher level of collaborative, inter-dependent actions, etc.). There is a positive bi-modal relationship: networks tend to be fruitful environments for knowledge management¹⁰, and proper knowledge management helps create stable, active networks.
- A redesign of development project as networked projects. This is a direct consequence of the first attribute, implying that key Cooperation instruments like projects and programmes will themselves be highly networked (Nascimbeni 2014). Networked projects are designed as a kind of operational network, where participation is not based on geographic space, but on spaces defined by information flows and knowledge generation. This opens up participation, but potentially makes project management more complex (in effect, turning a project director into a network manager). The following sub-section examines this attribute in more detail.

- The promotion of social capital through networks. Social capital is an important indicator of development and development process, even if hard to quantify and measure. Whereas in the past it was essentially a locally-generated, intangible public good, presently and mainly thanks to the Internet¹¹ social it is widely generated by communities with members in different countries (Van Bavel et.al. 2004, Acevedo 2007). Networked Cooperation initiatives can try to explicitly create or increase existing social capital (through volunteer actions, the rate of collaborative activities, etc.), as an outcome of their work.
- The incorporation of multi-stakeholder actions. Within the context of networked actions, it may be easier to design tasks that involve collaboration among a combination of actors from government, civil society, private sector, academia, etc. Even an entire project can be conceived with multi-stakeholder approach in mind. Among the advantages is the possibility of access to more numerous/diverse resources or the sharing of responsibilities. The more recent public-private alliances for development are examples of these. (Mataix et.al. 2008)

It is outside the scope of this article to discuss what would be necessary in order to incorporate these changes in Cooperation agents. But let us briefly mention two essential factors, referred to capacities and evaluation. Networking capacities, i.e. those required to act and work within network environments, are scarce in Cooperation organizations and need to be strengthened across all levels¹². The notion of generative capacities (Moreno 2009) is relevant for this purpose, as they facilitate adequate responses in complex, changing and diverse¹³ environments, such as networks.¹⁴

In terms of evaluation and learning about its advances and challenges, Network Cooperation can use analytic methodologies such as Social Network Analysis (SNA), to help respond to the question “Do we actually have the network we expected/wanted to have?” and thus be able to adjust it for better performance (Barabási 2012, 2002; Easley & Kleinberg, 2010). The significant potential for Cooperation and development networks of these methods has only recently started to be recognized (Hilbert 2012).

Applying the concept: a development project as a development network

Most development projects/programmes are still designed and implemented in ways that have changed little in decades. Basically, they have a few objectives to be achieved at a given physical location and time. The people involved (as project staff or contracted for specific tasks) are local, except for the donor’s programme officer and perhaps one or more specialized consultants. The projects have little operational links to other projects (even within the same country or from the same donor agency). Their results and generated knowledge are seldom applied outside of them.

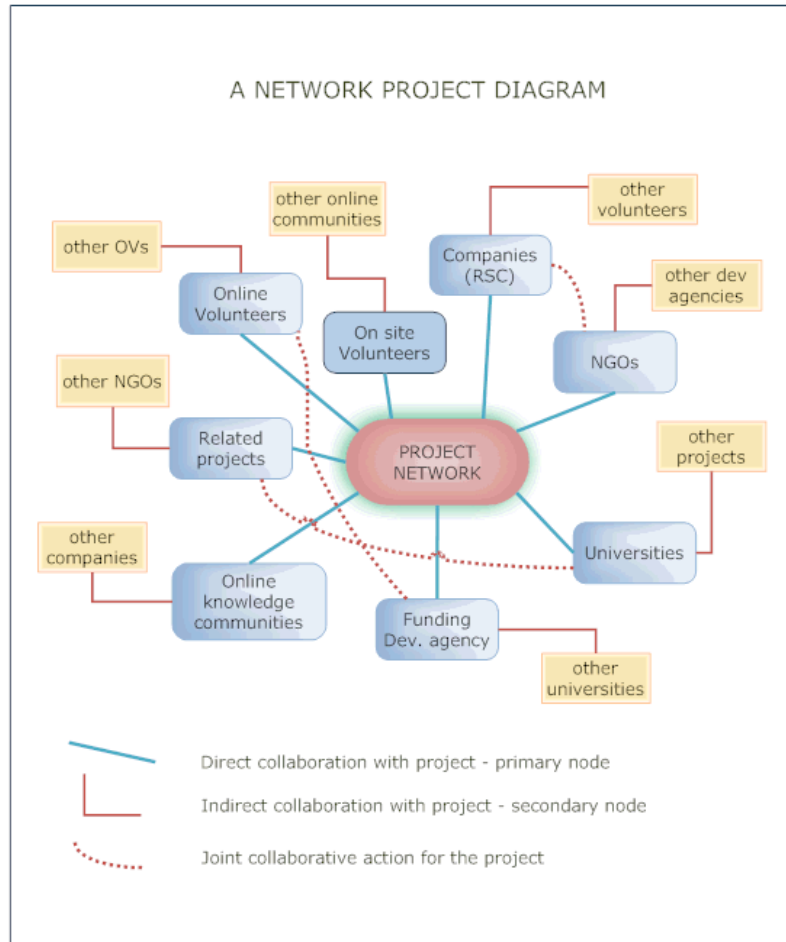
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By contrast, let us describe on how cars are produced and commercialized. A car is manufactured from hundreds of different components, produced in various countries (and with raw materials which may come from some additional ones). Its engineering work, initiated at some central company labs, incorporates previous knowledge from other models, and is complemented by actions at the factories where final assembly takes place (normally in a different country). Marketing, transport, sales and financing expand the number of countries and stakeholders involved. The car displayed in the showroom meets standards of quality, safety and price that satisfy the consumer who takes it home.

That car is the product of a highly networked process, involving the participation of a significant number of nodes around the world, using ICTs to access information and provide open and constant communications via multiple channels, while adhering to specific procedures and targets. The project, in comparison, involves few nodes in few countries; communication is intermittent; ICT use is far less pervasive (probably for administrative purposes mostly) and activities take place in relative isolation. To be sure, there are some development projects that are more advanced and connected than the ones depicted above. And certainly the production of a car is more manageable (it involves processes well-studied and controlled). But the point we want to bring across is simple: development projects today, by and large, are essentially non-networked.

So let us think of a development project as a network in itself, with networked structures and dynamics in mind. It is designed over a set of connected nodes with well-defined individualized as well as collaborative tasks. These nodes channel the resources and carry out the necessary activities to achieve its objectives. The project director is essentially a network manager, who amongst other things oversees a potentially higher level of participation and inputs, many of them from outside the immediate vicinity of the project.

Figure 1 illustrates one of many possible geometries for a 'network project'. It features the multi-faceted involvement of persons and organizations, whether in the project's central location or across the world. Many of the participants would collaborate online, either as individuals (e.g. an online volunteer) or in teams (e.g. to prepare a publication). A team could be formed within an organization (e.g. a group of technical specialists at a university), or set up as virtual teams across organizations (e.g. to design, host and manage the project's web site).



*Figure 2 A network architecture for a development project
(source: Acevedo 2009)*

Let us imagine that this project deals with HIV-AIDS prevention/care in a large Southeast Asian country. The actors/nodes in this example, besides the direct project staff (not shown in the sketch), could have the following roles:

- Professors/students from a national **university** form a knowledge network tailored to the purposes of the project; it would be also joined by colleagues from other **universities** in Asia, Europe and the US involved in similar projects **projects**);
- Members of one or more **NGOs** are in charge of surveying and mapping the cases of HIV-positive individuals in the regions where the project intervenes

- The main **funding agency**, with offices in the capital as well as a regional office in Delhi, carries out administrative and performance oversight, while supporting project management on specific requests (preparing bids for larger contracts, providing for gender advocacy training, etc.). It also links the project with an **online volunteering** service, which can facilitate virtual collaboration for a web designer, translations of technical publications, and comparisons of legal frameworks in other countries.
- A group of **companies** that are members of the UN Global Compact and with previous involvement in HIV-AIDS issues, provide advice and support on logistics/communications, and co-organize with other **NGOs** a series of public awareness campaigns.
- **Other projects**, from the same agency as well as others, collaborate through their systematized experiences, identifying consultants (including from **NGOs** they have collaborated with) and hosting staff from the **Ministry** of Health (in the case of projects overseas) to learn first-hand about practices and challenges related to community buy-in, retroviral distribution, data and information management, etc.
- **On site volunteers**, many of them young people in the villages where the project is working (in some cases HIV-positive people themselves or members of affected families), collaborating to raise awareness of local communities and inform them about proper prevention and caring methods.

Designing and managing such networked development projects will be challenging. Higher operational complexity and traditional process inertia are some of the obstacles to overcome. Development agencies could contribute to this shift in programming strategies by building up networking capacities, creating practical guidelines or even incorporating network specialists¹⁵ to their teams. But the benefits would arguably be greater, in terms of more knowledge, technical and even financial resources in comparison with traditional project methodologies. Not to mention the social capital generated from this expanded 'project community' which would contribute to the sustainability of its effects.

4. Network Cooperation effects on Development 2.0 systems

We claimed above that Network Cooperation schemes are particularly relevant as Development 2.0 trends and practices gradually become more widespread. But how would this actually occur? What specific effects would it have over development systems?

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Let us perform a simple thought experiment. From a systems perspective (and similarly to basic project schemes), Development 2.0 could be deconstructed into the following basic elements (fig 2): (i) Structure, (ii) Resources, (iii) Process, and (iv) Results. An element of 'Context' is added because of its influence on developmental performance. The experiment consists in exploring how networks effects could influence each of those areas.

The results of the thought experiment are presented in table 1 below. For each element of Development 2.0, the table summarizes: (i) a definition of the element; (ii) what to look for in terms of network incidence; and (iii) likely network effects contributed from Network Cooperation practices.

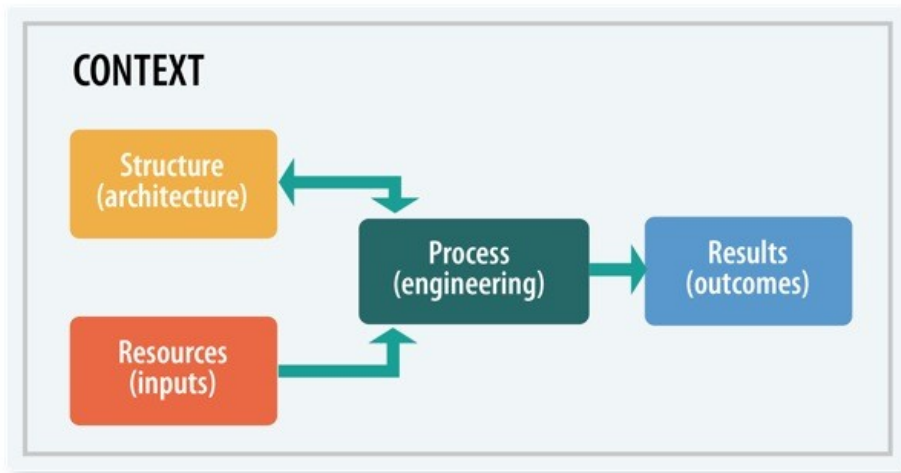


Figure 3 Basic elements in a development system

<p>Context: the combined set of conditions (social, political, economic, cultural, technological, physical) that development work is tied to</p>	<p>What network factors and trends exist in the context that can influence development performance?</p>
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<p>At the global level, the context is the Network Society, which itself directly shapes Development 2.0.</p> <p>At a more local level, the issue is less about network effects on the context (as opposed to the other elements below) and more of finding ways to adapt to the local context using network factors. For example, in a politically-restrictive environment, using the right ICTs network tools (like anonymous blogging, data encryption, etc.) can help to safely distribute information or ensuring data privacy.</p>	
<p>Resources: the inputs that go into development processes, and how are they provided</p>	<p><i>What network practices can influence their identification, selection and generation; also, how they are accessed by development initiatives?</i></p>
<p>Networking can provoke effects on various types of resources:</p> <ul style="list-style-type: none"> - 'Data/information/knowledge' (the <u>informational</u> resources) - People – e.g. on training and capacity building - Money – e.g. on fund-raising (crowd-sourcing, public-private partnerships, etc.) - Technology – on computers, Internet, mobiles, web 2.0, FLOSS, etc. - Social capital – with special emphasis on <i>network capital</i>. This may be a less tangible input, but a key one based on its relation with collaborative action. 	
<p>Structure: the architecture of existing development systems and how is it designed, built and maintained.</p>	<p><i>What network geometries and structures exist and/or could in principle affect the operations and results of development work?</i></p>
<p>Three different levels at which network effects can be applied, from small to large:</p> <ul style="list-style-type: none"> - (a) the micro or 'project' level: designing and managing projects using networked principles (i.e., a networked projects, as indicated in the previous section) - (b) the meso or 'organization' level: increasing institutional network readiness (whether for an individual organization, or for a network or organizations), for example via improved knowledge management or active promotion of collaboration among projects and departments - (c) the macro or 'system' level: identifying and putting into effect some networked strategies that can more effectively bind Cooperation actors, like bilateral agencies under the OCDE's DAC, multilaterals in the UN System, etc.).¹⁶ 	
<p>Process: the actions that are carried out in development work (e.g. in terms of design, planning, management, transactions, evaluation, etc.) and the procedures that govern them.</p>	<p><i>What networked actions are already part of development processes, and where there is room for innovation?</i></p>

<p>The process is the stage of development systems most likely to gain from networking. After all, networking is defined by actions and interactions (more than by structure).</p> <p>Networked practices can have direct contributions on (i) Knowledge Management, (ii) participatory project design; (iii) capacity building (including for collaborative capacities); (iv) policy incidence, (v) technological integration.</p>	
<p>Results: the effects, both direct (e.g. improvements in earnings) and indirect (e.g. on policy-making) that are a consequence of development work.</p>	<p><i>What network factors have a direct influence shaping and extending results?</i></p>
<p>Networking 'catalyzers' can help in the transformation of results into development outcomes¹⁷, related to (i) beneficiaries empowerment, (ii) community awareness/appropriation of results, e.g. using mobile phones for medical consultations, (iii) Human Rights promotion, or (iv) participatory democratic governance</p>	

Table 1 –Effects from networked Cooperation approaches to a development system

It can then be inferred that a thorough introduction of networked Cooperation practices to Development 2.0 systems could likely result in notable contributions. Not only by affecting the parcel of development work supported by international Cooperation, which is always a small part of overall national development actions¹⁸. It would also exert incidence in the national development landscape, with such crossover effects as knowledge management, ICT integration or building capacity for institutional networks.

Significant obstacles stand on the way of extending networked Cooperation approaches. Institutional inertia makes these types of changes, which affect not just a section or department but an entire organization, more difficult to reach. The trends towards quick results and rapid, visible outcomes (all on lower budgets) means that processes which require more time to bear fruit such as the ones described in this article receive lower priority or are discarded altogether. The meeting of minds required to consider re-visiting institutional strategies is hard to come by – and normally only occurs in the face of significant problems. A 'nudge' or incremental approach, where a small share of the proposed elements of the Network Cooperation model is acted upon, may be the best way to make concrete advances.

Moreover, there are limitations to this approach that bear closer scrutiny. Collaborative processes sound good but are difficult to introduce in institutional cultures, like that of many development agencies, which are characterized by a 'silo' approach

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(i.e. among projects or units). The high mobility of development professionals linked to lower job security means that organizations may not really receive the benefits of increased social capital gained from networks. There is little systematization in the development sector about the successes and failures of networking practices that can guide organizations. Nor there appear to be many sources of support for research on this seemingly removed area of development studies.

5. Conclusions

The development sector is changing at an unprecedented pace. There have been significant progress towards the achievement of the MDGs, yet large pockets of poverty remain (mostly in Sub-Saharan Africa, South-East Asia and Central America). The global development agenda has recently incorporated inequality as a focus, besides the long-standing one on poverty. Traditional North-South development cooperation loses influence¹⁹ and South-South cooperation increases, while many emerging economies seem to be more upbeat than those of the more industrialized Western powers. At the same time, there is more native human capacity than ever in developing countries, and these higher numbers of capable individuals can now access vast information resources and communicate timely through digital technologies. In addition, a growing number of non-state actors (including private companies) have entered the development field, sometime with deep pockets and advanced methodologies that rival those of traditional development actors like bilateral aid agencies or UN System organizations²⁰.

A renewed type of development strategy, which some authors have termed Development 2.0, is emerging from this confluence of factors. It seeks to enable and support human agency, coherent with Sen's capabilities approach and the Human Development paradigm. It is also well-adapted to the Network Society environment described by Castells. It operates on the basis of a strong technological foundation (particularly ICTs), open knowledge flows and stakeholder-led, local innovation. And as the association of its name with the Web 2.0 suggests, Development 2.0 is 'networked development'.

Cooperation needs to change in order to keep up with this fast evolving development panorama, particularly on the eve of a global debate about the post-2015 development agenda. The main message from this article is that the adoption of a highly networked Cooperation approach will be one of the required changes, and that it necessary to examine and break down how such an approach could actually be introduced. For that purpose, we have referred to the possibilities, components and effects of a Network Cooperation concept that is coherent with the new Development 2.0 framework.

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Several accompanying messages emerge from this preliminary characterization exercise. The first is that we are not starting from zero: Cooperation is already becoming networked (though possibly not in deliberate, conscious manner) and there are valuable experiences to draw from. However, at a time when everyone and everything seems/claims to be networked, we believe there is a need for more epistemological clarity about networks, and particularly those that are more suitable for development activities. Thus, while some view networks as self-organizing and self-managing, we suggest they should be examined as a distinct type of organizational modality from which patterns, norms and behaviours can be identified and shaped for a better contribution to Human Development objectives.

Secondly, if distinctive organizational characteristics for networks are assumed, then preparing explicit networking strategies would be a useful first step for Cooperation actors to incorporate desired network attributes in planned, rational ways. Very few organizations, even including actual networks, exhibit such strategies today. It is not enough to simply decide that networks are valuable for Cooperation. Decision-makers need to make informed decisions about which network characteristics/styles are more suitable for their organizations' specific purposes or institutional contexts; for example, choosing over a centralized, command-and-control network or a decentralized, enabling one for a given situation.

Thirdly, productive collaboration is both a means and an end for successful networking. It has also been notoriously difficult to do in a sustained, systematic manner. And last but certainly not least, is that in order to realize significant benefits from networking, development organizations require a degree of collaborative capacities which is presently lacking in most of them (including within networks). Yet these expanded collaborative capacities relate to the very notion of Cooperation (which literally refers to co-operating or 'operating together') and its future. Consequently, networking-induced changes that improve collaboration will have a necessary and positive bearing on Cooperation itself. Building collaborative capacities could turn out to be the single most important contribution of Network Cooperation to Development 2.0.

Lastly, we believe that much more research is needed in order to properly characterize networked Cooperation modalities and to provide useful tools to guide their implementation. The development community can learn much from other socio-economic sectors/actors about productive collaboration, such as from open-source software, crowdsourcing or scientific research. And for analytic, evaluative purposes there is significant potential for the extended application of Social Network Analysis and other methods derived from the emerging field of network science.

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¹ENDNOTES

It was the early phase of collective Internet spaces like 'Yahogroups' or 'Ning'.

² Efficacy is taken here as the combination of 'effectiveness' and 'efficiency' (in this case, of Cooperation actions)

³ Initially *embraced by the United Nations Development Programme (UNDP) after 1990, with its Human Development Reports and the Human Development Index (HDI)*; <http://hdr.undp.org/en/>

⁴ Sen incorporated the idea of 'empowerment' as essential to Human Development, meaning opportunities (based on capabilities) which could realistically be realized.

⁵ The UN Online Volunteering service is one of the main initiatives that facilitate the involvement of online volunteers in international development activities. <https://onlinevolunteering.org/en/vol/resources/>

⁶ Openness, or the Open Movement, refers to an operational style that facilitates access to informational resources and enables collaborative environments/cultures. Drawing from the pioneer work on Open Source software, it has prompted areas of work such as Open Government, Open Data, Open Educational Resources, etc. Development 2.0 integrates attitudes and practices based on Openness – and there is resulting debate about 'Open Development'.

⁷ Innovation can be viewed as an ethos that stimulates changes in instrument as well as in processes in order to bring about new ways to bring about positive changes for individuals and communities. Importantly, development innovations are by no means restricted to actors in the richer, more developed North; in fact, most developmentally suited innovations come from organizations, communities and individuals from developing countries. Development 2.0 incorporates methodologies and processes driven by innovation. See UNICEF's Innovation Labs (UNICEF, 2012), MIT's Development-Lab courses and projects <http://d-lab.mit.edu/>, or the Centre for Innovation in Technology for Human Development at Spain's Universidad Politécnica de Madrid, <http://www.itd.upm.es/>.

⁸ Just the 23 countries which form part of OECD's Development Assistance Committee (DAC) reported a total of 134.8 US\$ billion in international Cooperation on 2013. This doesn't include the increasing contributions from non-OECD countries, like China or Brazil. However, some of that funding comes wrapped in soft loans and tied, highly conditional grants. <http://www.oecd.org/newsroom/aid-to-developing-countries-rebounds-in-2013-to-reach-an-all-time-high.htm>

⁹ A number of recent ICT-for-development programme evaluations point at the tendencies to form development networks and the subsequent challenges in making them work effectively, including: (i) @LIS / EC - <http://bit.ly/1rYscUJ>; (ii) Building Communications Alliance (various organizations); <http://bit.ly/1uxYtQs>; (iii) ICA-CEA/IDRC: <http://www.info25.org/en/idrc>; (iv) Hivos; <http://bit.ly/1XDENy>

¹⁰ Because of the electronic tools at their disposal and the pre-disposition towards knowledge sharing in networks.

¹¹ Particularly through popular web 2.0 applications like Facebook or LinkedIn, as well as mobile internet access.

¹² For example, for project managers, desk officers (who oversee project portfolios), monitoring and evaluation professionals, strategic planners and decision-makers, institutional representatives in international fora, etc.

¹³ 'Diverse' as in characterized by diversity.

¹⁴ According to Moreno, the Network Society opens scenarios so varied and fast-moving that traditional models for systematic planning, institutional order and programmed management may be necessary but not sufficient for everyday decision-making. Key among generative capacities are those related to (i) learning to learn; (ii) new leaderships styles; (iii) systemic vision; (iv) balance between cooperation and competition; and (v) organizational feed-back. Network capacities fall squarely under the umbrella of generative capacities.

¹⁵ In close association with the project director, stakeholders and local communities, a network specialist would help design and construct a tailor-made network on the basis of project needs and objectives. A network specialist could even support the project director on an ongoing basis to manage and energize the project network (s/he would not need to reside at the physical project location).

¹⁶ For example, such strategies could be applicable to promote joint inter-agency initiatives, more frequent professionals' exchange, resetting funding criteria that favor/support development networks, or adjusting evaluation guidelines accordingly.

¹⁷ There is a difference between development 'results' (the direct products of activities) and 'outcomes' (changes in development conditions), the latter being what ultimately matters.

¹⁸ Even in Africa, where Cooperation funding is largest relative to national GDP, it accounted in 2003 for 12% of national budgets (excluding Nigeria and South Africa, that receives budges. relative

¹⁹ Due to a combination of factors, including the rise in the number of middle-income countries, the growing economic clout of emergent economies, the economic crisis in OECD countries, and its disputed effectiveness.

²⁰ Some of the better known ones as the Bill & Melinda Gates Foundation (<http://www.gatesfoundation.org/How-We-Work>), the GAVI alliance for international vaccines (<http://www.gavi.org/about/strategy/>) or the Clinton Foundation (<http://www.clintonfoundation.org/about>)