

Scoping the Convergences of Knowledge, Technology, Community and Decision-making

An IISD Knowledge Communications Practice Note

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Scoping the Convergences of Knowledge, Technology, Community and Decision-making

Knowledge concepts and practices for international organizations have emerged out of a cross fertilization of management approaches in the private sector, innovation in the uses of information and communications technologies, and processes for addressing international development through more consultative approaches. Influencing sectors, disciplines and communities include:

- Private sector information and knowledge management experiments
- Social science and popular culture influences, including social network analysis
- Technological evolution, including new approaches to collective ownership of intellectual property
- Lessons from the international development field on technology transfer, K4D and community capabilities
- Research sector (including academic, government, NGO, R&D departments in companies) on knowledge generation, research networks and policy influence
- Civil society engagement, networking and participation in decision making
- Multistakeholder processes as an emerging “sector”; new forms of governance through transnational, transectoral approaches

Each of these communities is learning and adopting tools and approaches from the others. For example:

In the private sector: From its own experiments, its interest in concepts of social capital and social networks, and its exposure to the demands of citizens for accountability, the private sector is learning that knowledge management processes now need to include not only ICT tools but also social management skills and an understanding of how to engage with citizens and communities.

In development assistance: The international development community is coming to understand that sustainable development involves mutual knowledge sharing and mutual capacity development, that the capabilities of the south need to be acknowledged and built upon, and that this process may be fast tracked and scaled up through the harnessing of new communications technologies.

At the level of citizen engagement: Citizens are beginning to see a number of paradoxes in these convergences: they have increasing ability to choose their own communities of influence (moving from physical place to virtual place). At the same time, this may be leading to growing isolation from their physical community, which has implications for participation in local democratic processes.

The following table is an attempt to capture the major developments and trends in order to better understand their context and convergence.

A note about the format of the table: it should be read by column, from top to bottom, rather than by row, from left to right. The entries are not reflected in a strict chronological framework, although in general the top of the table reflects earliest initiatives and the end of the table reflects most recent developments.

What is particularly interesting is the number of convergences illustrated at the end of the table, where developments in one column have clearly been influential in shaping trends in another column. One could argue that ultimately, organizations working in the field of sustainable development are really bringing together the lessons and tools from all seven sectors and disciplines to address two fundamental driving forces behind our work:

- What do we need to know about what is changing, or needs to change, in the world?
- What does it take to create change, at the institutional and individual levels?

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Private sector experiments	Social science and popular culture influences	Technological and cultural/economic revolution	International Development	Research sector [knowledge generation]	Civil society and citizen participation	Multistakeholder processes
<p>Information management: early approaches recognizing organizational information as an asset:</p> <p>Tools deployed: Databases; GIS; Data mining</p> <p>Influencing factors:</p> <ul style="list-style-type: none"> • information overload 	<p>Early explorations of the meaning of social capital as the functioning of individuals within groups and societies: key concepts include</p> <ul style="list-style-type: none"> • Self selected relationships; • Structured relationships <p>Social network analysis is the mapping of these relationships</p>	<p>Emergence of new Information and Communications Technologies (ICT's): the convergence of connectivity; computer communications; personal computing; hardware, software.</p>	<p>Shifts in concepts of capacity building : from technology transfer to knowledge transfer</p> <p>Emphasis also shifts from building infrastructure to building human capacity.</p>	<p>Original purpose of publishing was to start conversations (political pamphlets, etc)¹</p> <p>Early academic models: “Invisible college” of experts; Research networks</p>	<p>Push for Access to information; Promotion of empowerment through information</p>	<p>Reengineering and downsizing government: the view that the private sector is more efficient and can deliver services traditionally managed by the public sector.</p>
<p>Knowledge management: recognition of intellectual capital as a core asset of an enterprise.</p> <p>Tools deployed: Intranets; databases of competencies</p>	<p>Growing interest in societal transformation processes:</p> <ul style="list-style-type: none"> • Individual behaviour change through the provision of information • Social marketing: experiments to 	<p>Emergence of knowledge based economies: economic systems based on knowledge flows rather than (or in addition to) flows of goods: underpinned by ICT's.</p>	<p>Emergence of the concept of knowledge as soft power: the promotion of a country's ideals, values, experience as a way to have influence in another country's affairs.</p>	<p>Invisible college concept shifts to →Communities of practice:</p> <ul style="list-style-type: none"> • individual information exchange shifts to collaboration among individuals 	<p>Demand for consultation and inclusion at all levels of decision making, from local to global.</p>	<p>Rise in Public/private partnerships: initiatives to find new ways to work together for common objectives – moving government</p>

¹ Brown, Duguid. Social life of information
 Scoping the convergences of knowledge, technology, community and decision-making:
 An IISD Knowledge Communications Practice Note, Heather Creech, 2004

<p>Influencing factors:</p> <ul style="list-style-type: none"> • Loss of middle managers during company reengineering; • Growth of distributed organizations / globalization of companies 	<p>influence behaviour change on a larger scale using marketing practices (ad campaigns, etc.)</p> <ul style="list-style-type: none"> • Group behaviour change through consultation, involvement in decision making 			<ul style="list-style-type: none"> • Pooling knowledge in social ways rather than relying on individual access to knowledge <p>Emerging appreciation of Traditional Knowledge processes based on relationships to people and land</p>		<p>beyond regulation; moving the private sector beyond compliance.</p> <p>Rise in business/NGO relationships: engagement in positive dialogue to improve social and environmental performance.</p>
<p>Increased use of B2B (business to business) models, strategic alliances, “business webs” [Don Tapscott] and “interorganizational systems” [Queen’s Centre for Knowledge Based Enterprises]</p> <p>Rationale: No one company can or has to do everything in the value chain.</p>	<p>Tipping point analysis:</p> <p>Learning to recognize the key players within organizations / groups / societies -- mavens, salespersons, connectors -- understanding and capitalizing on their roles in the social change process</p>	<p>Invention of new tools</p> <ul style="list-style-type: none"> • PDF (portable document format) for ease of online publishing and rapid release of knowledge • Groupware tools for collaboration among dispersed groups of individuals, facilitating joint work, knowledge generation and sharing. • Tools for supporting online communities: Portals, gateways, intranets, extranets: 	<p>ICTS meet development (ICT4D): concern that a “Digital Divide” exists between the north and the south, and between urban and rural.</p> <p>Emerging dispute that “ICT4D” is based on old development paradigms:</p> <ul style="list-style-type: none"> • That poverty is a result of a gap – a gap in food production; a gap in education; or in this case, a gap in access to ICT infrastructure and services – and that poverty could be significantly reduced by filling the gap (or 	<p>Research networks shift to →Knowledge networks: moving research into policy and action (requiring social capital and organizational change mechanisms)</p>	<p>Efforts to increase citizen engagement: Social marketing; Environmental education, voluntary simplicity movements: Targeting individual behaviour/lifestyle changes</p>	<p>Global partnerships: bringing all sectors together in multi-stakeholder initiatives: recognition that no one sector can or has to do everything in the value chain.</p>

		engaging ever wider audiences in the exchange of knowledge <ul style="list-style-type: none"> • Tools for distributed, online learning: distance education platforms 	bridging the divide). <ul style="list-style-type: none"> • That only by mobilizing the trillions of dollars available through private sector investment in ICT can real change in economic and social development be effected. 			
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Fostering innovation in the workplace: Models: R&D departments; Fostering “serious play” in the workplace; Supporting “Massive multiple player systems”: treating the customer as volunteer developer	Addressing learning processes at the individual level: Promotion of adult education and life long learning.	Invention of tools for knowledge mining: Zaplets, Google business services, etc. developed to locate ideas in the electronic streams of email, shared document files, websites, etc.	Knowledge economies meet development (K4D): publication of the World Bank 1998 Development Report, on Knowledge for Development, arguing that knowledge is capital that can be invested in development; and that knowledge is as important an asset of the Bank as its loans. Immediate dispute that this promotes “a new hierarchy of knowledge ²⁷ ”: those	Movement towards Institutional collaboration /cross sectoral research collaboration (Networks of Centres of Excellence; Formal knowledge networks) Symbiosis: when Knowledge Networks meet communities of practice, combining both	Emerging concern over co-option: whether consultation and inclusion co-opts citizens; whether protest is more effective: <ul style="list-style-type: none"> • Citizen movements against globalization. • Culture jammers protesting consumer lifestyles 	Transgovernmental decision making, or “networked governance” ⁴ : the emergence of decision making based and driven by inclusion of all sectors Transformational / deep change processes: Global action networks ⁵ involving multiple partners, led by strong advocates for change, as new mechanisms for
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² Cross, Nigel. A Babel of Banks? A View From Europe. Panos, 1998. <http://www.panos.org.uk/resources/reportprintable.asp?type=report&id=1063>

³ Ibid.

⁴ Reinicke et al. Critical choices.

⁵ (Waddell et al.)

Scoping the convergences of knowledge, technology, community and decision-making: An IISD Knowledge Communications Practice Note, Heather Creech, 2004

			<p>who are part of the Bank's knowledge providers and those who are not.</p> <p>Concern also about "knowledge [that] won't be there, particularly the knowledge that is outside the technocratic and scientific community - indigenous knowledge, local language knowledge, private knowledge, not to mention knowledge which is too valuable or sensitive for the possessor to share".³</p>	institutional and individual knowledge sharing		accelerating societal change.
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<p>Evolving relationship with the customer: Loyalty programs; Permission marketing; Customer reviews (eg, Amazon.com) Networked marketing.</p> <p>Focus on ways to get more knowledge about / interaction with the</p>	<p>Understanding learning processes at the group level: Community and organizational learning through narrative.</p> <ul style="list-style-type: none"> • Growing interest in the passing of traditional knowledge from one generation to the next • Applications of oral history methods • Denning's work on storytelling within 	<p>Intellectual property debate and the emergence of "Open source" – originally a practice among computer programmers to release source code for others to work with and adapt, with no retention of IPR. Has evolved into an ideology of collaboration that grants broader</p>	<p>Development agencies adopt ICT tools and related knowledge management practices as means to improve their own internal efficiencies, at the same time as they promote the value of ICT's for development and knowledge for development.</p>	<p>Knowledge brokering emerges as a process to connect what is known with those who need to know.</p>	<p>Emergence of "social entrepreneurs": individuals who pursue business interests that have significant social and environmental benefit for their communities. Social entrepreneurs often look beyond immediate community needs</p>	<p>Emergence of Public entrepreneurship networks⁶:</p> <p>Community-based consortia of public, private and citizen interests that come together to introduce, test and use new "greener" technologies.</p>
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⁶ Laws, Susskind *et al.* Public Entrepreneurship Networks. MIT, 2001. <http://web.mit.edu/dusp/etpp/content/publications/pdfs/PENIntro.pdf>
Scoping the convergences of knowledge, technology, community and decision-making:
An IISD Knowledge Communications Practice Note, Heather Creech, 2004

consumer/client	institutions; <ul style="list-style-type: none"> • Appreciative Inquiry methods to locate and build on the positives within organizations 	collective ownership of new ideas and practices.			to the need to catalyze systemic change.	
Emergence of social responsibility and reporting, in response to consumer and community demand for accountability. Organizational change processes: emphasis on institutional learning; adaptive management [Drucker, Senge]	Tracking change in levels of knowledge, learning, collaboration: Monitoring, assessment, indicators, evaluation processes			Collective, transformational learning within networks	Citizen engagement in Intellectual property debates, eg: <ul style="list-style-type: none"> • Demand for access to generic drugs; • Demand for music file sharing: Creative products treated as public goods vs private goods. 	

Current trends: The Knowledge Based Enterprise; Knowledge cultures in organizations; Post modern knowledge management: in all of these, management focus moves to relationships versus tools	Current trends in Internet culture: Blogs: making knowledge and opinion sharing more personal, immediate, and accessible Online communities: Removing the concept of physical place from the concept of community	Current issues: Recognition of the Google effect: <ul style="list-style-type: none"> • link density – sites that are well established on the Web, linked to by many other sites, achieve and retain high rankings on Google. This prevents newer sites (in particular southern content providers) from gaining a 	Current issues: Exploring the impact of the diaspora: Knowledge and funding flowing in nontraditional channels, from families and businesses to their home communities rather than through traditional development assistance processes (bilateral or through charities)	Current trends: Innovation agendas of national governments: need for new ideas and willingness to providing funding for innovation: resurgence of support for the research sector Intellectual property debate	Current issues: Emerging concerns over protection of privacy of the individual in a globalized, networked world.	Current issues: Next-Generation Decision making : changing age demographic in the south uses ICTs to share knowledge and create new communities of influence: transgenerational decision making Exploration by the
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		<p>foothold in the rankings</p> <ul style="list-style-type: none"> • fragmentation of knowledge: content providers now develop niche content rather than overarching frameworks in order to gain rank in Google (the more narrow and specific the content is, the more likely it will be accessed by the user through Google) 		<p>and the Open Content movement. Changing publishing practices in which IPR remains with the author and not the publisher; or IPR is considered a collective, societal right</p>		<p>UN of Multi-stakeholder partnerships as a new category of affiliation with the UN system.</p>
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Convergence points

Private sector experiments	Social science and popular culture influences	Technological and cultural/economic revolution	International Development	Research sector [knowledge generation]	Civic participation	Multi-stakeholder processes
<p>Global paradoxes for citizens:</p> <ul style="list-style-type: none"> • shift to both gain <u>and</u> loss of individual rights (greater access to information, loss of privacy); • shift to an Individual's ability to choose his/her community (moving from physical place to virtual place) <u>and</u> growing isolation (both real and virtual): implications for participation in democratic processes 						
<p>Business practices include both ICT tools and social management skills Business "license to operate" influenced by citizen demand for accountability</p>						
			<p>New approaches to international development: Harnessing ICTs to fast track / scale up development Communities of development experts meet capabilities of the south <u>Mutual</u> knowledge sharing and capacity development</p>			
				<p>New forms of governance : knowledge driven, consultative, problem solving transnational, trans-sectoral</p>		

IISD's Knowledge Communications program works at the intersection of communications, networks and sustainable development knowledge. Research and communications go hand in hand; IISD can make a difference in the world by sharing what we know—and what others know—about sustainability.