Creating a Culture of Knowledge Exchange within and beyond UNICEF: Case of Programme Monitoring and Response Initiative

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Introduction

Knowledge is at the heart of international development work. Knowledge may be the only resource that is not depleted; as we share it, we create more of it. We live in the era of the "knowledge-based economy". The term is defined by Powell and Snellman (2004) as "production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance". The key element of the knowledge-based economy is a greater dependency on intellectual capabilities than on physical inputs or natural resources (Powell and Snellman 2004). It covers a wide range of activities. A thread of research on the topic of knowledge-based economy focuses on the role of learning and continuous innovation inside organisations (Drucker 1993, Nonaka & Takeuchi 1995). Some organisations perform better in producing knowledge and diffusing it within and beyond, and researchers are particularly interested in learning the reasons for this, and how such good practices can be duplicated in other organisations or contexts.

In a seminal report published by the Organisation for Economic Co-operation and Development (OECD) (1996), "learning-by-doing" is highlighted as a key element in the knowledge-based economy. An essential aspect of learning is the transformation of tacit knowledge into codified knowledge[i] and cycling back to practice where new kinds of tacit knowledge are produced (OECD 1996). The report places great importance on the creation, diffusion and use of information and knowledge and concludes that the determinants of success of organisations, and of national economies as a whole, is ever more dependent upon their effectiveness in gathering and utilizing strategic know-how and competence (OECD 1996).

Knowledge has been recognized as an important source of organisational growth, particularly for organisations competing in international environments (Winter 1987; Wenger 1998). Organisational knowledge is indicative of intangible assets, operational routines and creative procedures that are difficult to emulate (Wasko and Faraj 2000). Collective learning occurs when organisational members share their ideas and "engage in constructive confrontations and challenge each other's viewpoints" (Zollo and Winter 2002).

Increasingly we notice that employment and productive work are becoming disaggregated, as more tasks are performed outside of the formal boundaries of an organisation (OECD 1996). Face to face interactions are costly and time consuming, therefore the new collaborative approach of working in a particular field by forming online communities and networks is becoming prevalent. This is typified by the growing number of international organisations

that cooperate remotely around the globe. As a result, international organisations are devoting more time and investment on knowledge management, sharing practices, and e-platforms.

The concept of communities of practice (CoPs - Lave and Wenger 1991) has also become more popular with both academics and practitioners over the last two decades. CoPs can be utilized to promote learning and innovation within and between organisations, in an extra-organisational context at the national, regional and international levels. Numerous scholars have documented the roles and implications of CoPs in development sectors. Yet systematic empirical studies on this topic, addressing challenges in sustaining CoPs in development context, are scarce and have not dealt with the implications of engaging development partners (on national/regional/international-levels) in these virtual practices.

This paper describes a case study that is contributing to regional and international knowledge exchange and learning, through establishment of a CoP. It deals with the roll-out of the real-time monitoring (RTM) CoP (as part of the Programme Monitoring and Response Initiative), an online network that brings together practitioners working on the subject of RTM, with the main focus of increasing consistent information-capturing, storage, dissemination and sharing of key lessons learned within and beyond this initiative.

From Theory to Practice:

Organisational Routines
Tacit and explicit knowledge belonging to individuals are the most valuable capital of an organisation (Montoni *et al.* 2004). CoPs are one of the effective tools of "knowledge codification" at different organisational levels. The literature has highlighted that knowledge codification facilitates the distribution of existing knowledge (Zollo and Winter 2002). The notion of CoPs was introduced by Lave and Wenger (1991: p.98) as "an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities". The main purpose of CoPs is to develop members' capabilities for building and exchanging related knowledge (Wenger and Snyder 2000). Research about small groups of individuals who are united based on their mutual expertise argues that such "situated practices" are a powerful basis of knowledge creation (Brown and Duguid 1991; Wenger 1998). CoPs produce a common pool of properties (such as: *routines*, artifacts, language, styles, etc.), which is mostly due to their tacit nature, and knowledge creation is closely related to the "socialization"[ii] type of knowledge conversion forms (Nonaka and Takeuchi 1995). The creation, accumulation and circulation of organisational knowledge within the organisation are achieved through the operation of formal and informal knowledge networks and CoPs.

Pór and van Beckkum (2004) argue that CoPs have elements that could support innovation. They claim CoPs indirectly spur innovation by: (a) shaping the organisation's culture, (b) developing productive conversations, (c) attracting key talents for innovation, and (d) acting as a competitive advantage in the world of business alliances.

Organisational routines have been recognized as a source of knowledge creation and exchange in institutions. A well-accepted definition of organisational routines is cited by Feldman and Rafaeli (2002) as "repetitive patterns of behavior of multiple organisational members involved in performing organisational tasks". This implies that organisational

routines normally engage more than one individual in more than one interaction. In fact, routines generate the opportunity for connections among people; connection has been viewed as a key building block of CoPs; Feldman and Rafaeli (2002) have defined connections as "interactions between people that enable them to transfer information" and they believe that these connections can improve "the sense of mutual understanding" and learning - which is to a certain extent the key issue in CoPs. In addition, they add, "connections provide knowledge about other participants in a routine" - that is imperative for CoP members; and finally they recognize routine as one form of coordination instrument. Furthermore, organisational routines are recognized as the key repository of organisational knowledge (Becker 2004); "they represent successful solutions to particular problems" (Nelson and Winster 1982) and are widely credited with being able to store tacit knowledge (Becker 2004). Cohendet and Llerena (2003: p.274) suggest "routines guarantee the regularity and predictability of individual behavior necessary for collective action. This property refers to the characteristic of routine as organisational memory, and expresses the cognitive and co-ordinating dimension of the routine". They discuss the role of communities on the construction of routines and acknowledge the formation of routines through permanent interactions among actors and organisational levels.

In this paper, we attempt to apply the theoretical concept of organisational routines into the daily practice of CoP management. The case study and our experience reveal the success factors, as well as the challenges.

Establishment of Knowledge Exchange Routines in The Programme Monitoring and Response Initiative

Information and knowledge have increasingly become essential resources and raw materials in the global development context. CoPs in UNICEF serve to meet national, regional, and global demands for assistance to achieve concrete sustainable impacts and results. It is a worthy effort, as CoPs bring the collective knowledge of individuals – mostly UNICEF staff - from the field offices to an accessible central forum. The knowledge needed for many key activities is distributed among practitioners, institutions, and specialists. The challenge is to understand the knowledge flows between them (internally and externally to UNICEF), which is a key point in understanding the establishment of routines and distributed-roles. As Smith (2002) describes, "a distributed knowledge base is a systemically coherent set of knowledge, maintained across an economically and / or socially integrated set of agents and institutions". This indicates that the relevant practical knowledge for UNICEF is not merely internal to the organisation, rather it is distributed across a wide range of actors, partners, and public organisations.

In the knowledge-based economy and development sector per se, organisations search for linkages to promote inter-organisational interactive learning and for outside partners and networks to provide complementary resources (OECD 1996). These linkages (online or offline) help UNICEF to spread the costs and risks related to innovation among a greater number of partners and to acquire access to new data that will lead to the development of new policies, processes, strategic decision-making, and to provide technical support to its national partners. As UNICEF develops new processes through different initiatives, it determines which activities should be undertaken individually (by UNICEF), in collaboration with other organisations (e.g. World Bank, other UN agencies, etc.), in collaboration with universities (in this case, University of Nairobi) or research institutions (University of Oslo, Health

Information Systems Programme), and with the support of governments (from four countries). CoPs provide a great solution to the above mentioned online collaboration among partners. These online networks can bring together experts from many countries – thanks to new information and communication technologies (ICTs). UNICEF is in the process of introducing CoPs and developing tools and guidance in more structured way, and the ESAR RTM community is one of the first of these.

The Programme Monitoring and Response (PMR) Initiative and its KE element

The PMR Initiative is a regional learning project coordinated by UNICEF Eastern and South Africa Regional Office (ESARO) in collaboration with four UNICEF Country Offices (COs) in Kenya, Swaziland, Uganda and Zimbabwe and UNICEF Headquarters in New York. The project is co-funded by the Bill and Melinda Gates Foundation (BMGF) and the U.S. Fund for UNICEF. Key objectives of the project are twofold: (a) to improve service delivery in health and nutrition at the level of (government) implementation through improved monitoring of intermediate results, feedback loops and learning, and use of quality and timely data to make evidence-based adjustments to strategies as needed; and (b) to understand the process of learning (by doing) which takes place through RTM and data use.

A major purpose of the initiative is to learn from the pilot four countries and ensure that learning strengthens the design and implementation in the countries and generates lessons for other countries in the region and beyond. The overall aim of the KM component of this initiative is to establish a functional KE system, grounded in an online CoP, which supports design and implementation of the initiative, its replication both within and outside of UNICEF programming, and organisational and public learning on how to implement real-time monitoring and response.

The initiative involves identifying, testing and promoting promising approaches for UNICEF, and ultimately for governments and partners, to strengthen and institutionalize systems and processes for PMR of service delivery/programmes in the health and health-related sectors (Nutrition, HIV, Water, Sanitation and Hygiene [WASH]) and in particular, at the decentralized level where implementation takes place (i.e. the district-level or lowest level of institutionalized government decision-making) in the four pilot countries.

The KE component of the initiative aims to strengthen knowledge sharing and foster continual learning of UNICEF, government and key partner staff in not only the four pilot countries, but within all 21 country offices (COs) in the Eastern and Southern Africa Region (ESAR)[iii] and beyond. Figure 1 below shows the contribution of KE to the initiative.

Learning while doing to feedback into programme adjustments

Learning from each other to improve programmes - Between & within countries

Learning for replication and scaling - What works & what can be copied or adapted
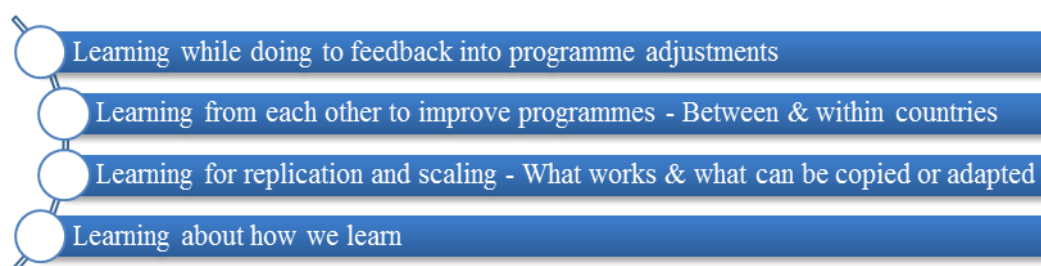
Learning about how we learn

Figure 1 – Contribution of Knowledge Exchange to the PMR Initiative

The KE ePlatform was developed with support from the initiative and in cooperation with UNICEF HQ KE and information technology (IT) units to support the Real-Time Monitoring Community of Practice. The eDiscussion platform of the community is based on the Microsoft Yammer Exchange. The community has already brought together more than 150 internal and external members who are working on, or are interested in RTM (related both to real-time use of strategic sector information and real-time citizen feedback). The RTM CoP serves to encourage south-south knowledge exchange, structured peer-to-peer learning, and experience sharing. The main purpose of this community is to pinpoint and capture best practices, and support the transformation of regional and international know-how into national/local level action. Other KE activities and products available through the RTM CoP include:

- Moderated eDiscussions: Currently these discussions have started on three prioritized topics identified through the PMR Initiative's Learning Agenda: (a) Dashboards and Data Visualization, (b) Citizen Feedback, Citizen Engagement and Social Accountability, and (c) Data Use, Action and Accountability.
- Knowledge Exchange Toolbox: A collection of recognized tools and methods, mostly non-IT based, for knowledge sharing; network and community building; and collaborative problem solving.
- Monthly webinar series: A Webinar Series Calendar has been developed and shared for further input. The series focuses on topics identified as priorities in the PMR Initiative's Learning Agenda. Presenters include those implementing PMR models within the four pilot COs, as well as internal and external experts.
- Document library: This is being further built and includes PMR Initiative-related documents as well as reference documents (UNICEF and non-UNICEF) on a range of relevant topics related to innovations in PMR.
- Video library: This also includes videos developed through the PMR Initiative and other relevant videos.
- Link exchange: This provides a list of select web links related to RTM.
- Information on professional opportunities and events: Postings are made for events related to innovations in PMR.
- RTM CoP quarterly newsletter
- Online and in-person capacity building sessions: The sessions are being conducted to strengthen the ability of UNICEF staff to use all features of the KE ePlatform.

The above list provides a number of routines that were established on the RTM CoP to ensure that the leadership of KE activities is well-distributed among core members of the community. The ESAR PMR Webinar Series (12 sessions organized during 2016-2017) was a key KE activity that brought together more than 500 experts – internal UNICEF specialists and external experts in the field. The PMR Webinar series (routine 1) was embedded in a larger regional webinar and Brown Bag Lunch (BBL) series, led by the regional KM specialist in ESARO that attracted a large number of UNICEF staff globally, in particular from neighbouring regions, the Middle East and North Africa (MENA) and West and Central Africa Region (WCAR). Recording and presentations of the webinar series were shared (routine 2) on the KE ePlatform to enable the conversation around each topic on the eDiscussion platform (RTM CoP Yammer group). As one members stated, *"I am always able*

to get links to all previous webinars, presentations and very helpful resources that aid in catch-ups of sessions that I missed participating in". In addition, monthly coordination calls (routine 3) were conducted with the four CO focal points from the pilot countries and HQ team. COs are providing a recap of progress, challenges, support needs, etc. via a Skype call. Minutes of the calls were shared on the KE platform by the moderator that attempted to attract members to the platform and helped to increase visitor numbers over certain periods. The CoP also benefited from several face-to-face meetings (inception meeting and annual reviews). The face-to-face meeting increases connection and trust among members, and improves the unity of the community (McDermott and Archibald 2010).

We launched three eDiscussion questions around key thematic areas. The discussions are championed and moderated (routine 4) by UNICEF CO staff working on the initiative. We attempted to distribute the "leadership" roles among core members of the community, to increase the sense of ownership and the connections between members. Another practice was established on the Yammer eDiscussion forum, as new members introduced themselves to the community (routine 5). There is no specific format, rather to understand informally the area of expertise of the members and know what they hope to achieve by being members of the community, as well as how they could contribute to it. The created routine also promotes communication between members, enables collaborative problem solving, and increases the amount of collective learning. In fact, it is during these interactions that we are able to convert inactive members and lurkers[iv] to be more active and contribute in the community. The below diagram (Figure 2) demonstrates three levels of members in the community:
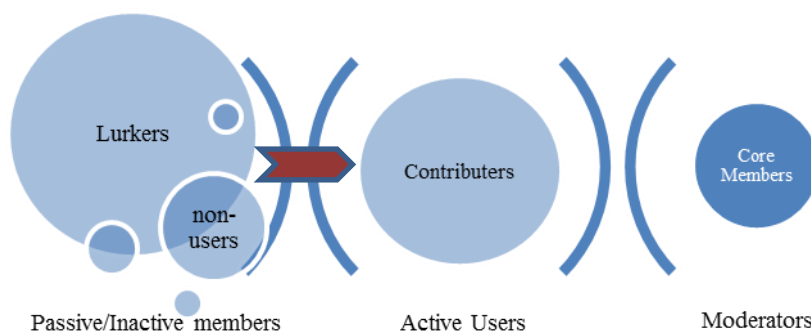

Figure 2 Three levels of membership in PMR Community

In most online communities, 90% of users are lurkers who don't contribute to the community (although sometimes they might be contributing to the community in invisible ways such as talking to other members, bringing new members to the community, etc.), 9% of users contribute a little, and only 1% of users account for almost all activity (Nielsen, 2006). By formation of routines, we are able to give opportunities to inactive members and lurkers to connect to other members and eventually take part and lead certain activities.

In theory and practice, the distributed perspective of leadership attempts to make a shift from the older focus on heroic classical formal/informal leadership, to the "web of leaders, followers, and their situations" in the day-to-day leadership activities (Gronn 2002; Spillane et al. 2004). The challenge of unpacking the interdependency actions of multiple leaders is critical (Gronn 2002; Spillane 2006). A distributed perspective is a "reciprocal"
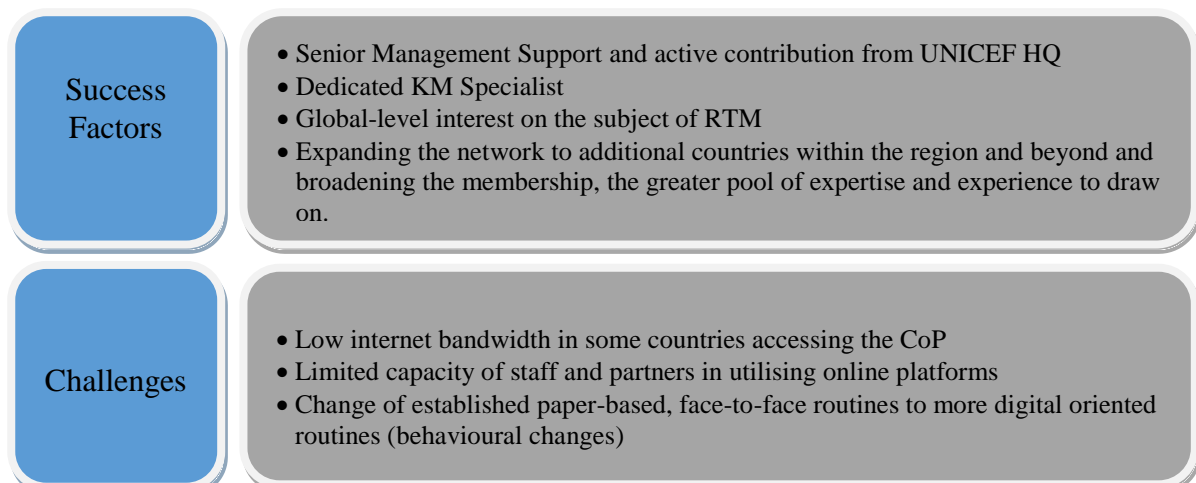
relationship – in which leaders are influencing members, and members are also influencing leaders. From this point of view, multiple leaders' work is interdependent and situational. The relationship among leaders, followers, and an evolving situation does not exist a priori. Leaders should construct opportunities, which is in many cases a struggle (Gronn 2002; Spillane et al. 2004). Distributed leadership influences shifts when different individuals emerge to be influential in the group, depending on their skills and knowledge required. In fact, distributed leadership "is a group activity that works through and within relationships, rather than individual action. It emerges from a variety of sources depending on the issue and who has the relevant expertise or creativity" (Bennett et al. 2003).

In the next section we will summarize the success factors, challenges, and organisational lessons learned through this case study.

Success factors, challenges, and organisational lessons learned:

New ICTs have fostered the development of new means of structuring and implementing the organisational network(s). CoPs serve as online collaborative spaces that bring partners together to foster creative actions. However, care must be taken to recognize that developing CoPs and a KE system is just one element among many required for success in exchanging and sharing knowledge. The UNICEF experience strongly proves that the full support of senior managers and their active participation in the KE practices (and CoPs) can be a routine that enables behavioural changes in the organisation, but which demands additional investment in sustaining the KE practices. Senior managers define the organisational storyline, by reinforcing the priorities, and by supporting behavioural changes within their teams and beyond. Therefore, to advance KE, high-level leadership and support is one of the key requirements. However, with respect to CoPs and their KE activities, too much attention from management might crush a CoP's collaborative character (McDermott and Archibald 2010). CoPs have no explicit hierarchy that control their daily work; and the interactions among members of the CoP are managed by "trust grounded in the respect for the common social norms" of the CoP (Cohendet 2005).

In addition to management support, the development of user-friendly platforms is a critical success factor for CoPs. This can be complemented by providing enough training and "how to" guidance. It is important that members understand the benefits of the CoP. The peer-to-peer knowledge sharing can potentially evolve to skills development and peer-assist support. The below figure (3) summarizes some of the key points on success factors, challenges, and our lessons learned:
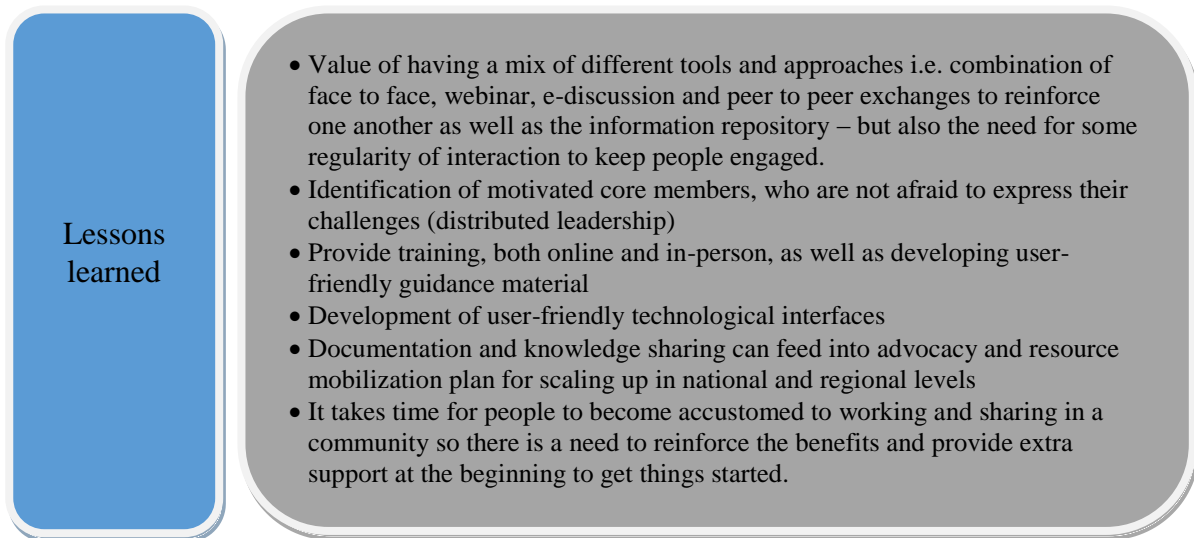
Success Factors	• Senior Management Support and active contribution from UNICEF HQ • Dedicated KM Specialist • Global-level interest on the subject of RTM • Expanding the network to additional countries within the region and beyond and broadening the membership, the greater pool of expertise and experience to draw on.
Challenges	• Low internet bandwidth in some countries accessing the CoP • Limited capacity of staff and partners in utilising online platforms • Change of established paper-based, face-to-face routines to more digital oriented routines (behavioural changes)

<table>
<tr>
<td>Lessons
learned</td>
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Value of having a mix of different tools and approaches i.e. combination of face to face, webinar, e-discussion and peer to peer exchanges to reinforce one another as well as the information repository – but also the need for some regularity of interaction to keep people engaged.
Identification of motivated core members, who are not afraid to express their challenges (distributed leadership)
Provide training, both online and in-person, as well as developing user-friendly guidance material
Development of user-friendly technological interfaces
Documentation and knowledge sharing can feed into advocacy and resource mobilization plan for scaling up in national and regional levels
It takes time for people to become accustomed to working and sharing in a community so there is a need to reinforce the benefits and provide extra support at the beginning to get things started.

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Figure 3: Success factors, challenges and lessons learned

Conclusion

The KE element of the PMR Initiative is the first of its kind in a UNICEF programme that focused on cross-country learning and found KE as a key pillar of a regional initiative. This initiative serves as an institutional reference for utilization of UNICEF online KE ePlatforms, primarily Yammer Exchange in the four countries in the region.

The challenge for economic and social science researches is to connect the overflowing theoretical (quantitative and qualitative) studies to the real organisational practices and their outcomes. This paper has attempted to theoretically and empirically explore a process of behavioural change and learning characterized by establishment of "KE routines". Based on the above premises, to build KE routines, the collaborative actions embedded in the process of developing and moderating the CoPs, are required to make them sustainable. An internal facilitator, in addition to the dynamic core-member group can greatly enhance the cycle of converting inactive and lurker members to more active participants. The leadership group of the CoP can use this cycle to promote collaboration and change. The responsibility of leaders is creating the conditions for KE and making it possible for practitioners to do so, since it is their knowledge and they should be engaged actively in the KE actions.

Knowledge sharing is a learning exercise by its nature. It enhances a person's depth of knowledge, and therefore it empowers the performance of practitioners. This benefit needs to be emphasized by CoP leaders and senior managers, while attempting to transform the inactive members to active participants in communities. The optimal value of such online communities is achieved when they go beyond being an online instrument for annual gatherings, and become a network of professional practitioners with a particular attention on knowledge transfer, cross-country learning, and a tool for skill development.

Whilst cultivating CoPs through changing institutional culture, CoPs need to be heard, and their challenges acknowledged and acted upon by senior managers. We need to remember that in the end what we should manage is not knowledge, but ignorance.

Note:
This study is based on the collective work of the UNICEF ESARO and UNICEF HQ.
Observations represent the personal views of the authors and do not necessarily reflect
UNICEF positions.

References
Becker, M. (2004). Organizational routines: a review of the literature. *Industrial and Corporate Change*, 13(4), pp.643-678.

Bennett, N., Harvey, J.A., Wise, C., and Woods, P.A., (2003). Distributed leadership: A desk study, Retrieved from http://www.ncsl.org.uk/literature

Brown, J. S., and Duguid, P., (1991). Organizational Learning and Communities of Practice: Toward a Unified View of Working, Learning and Bureaucratization, *Organization Science*, 2, pp 40–57

Cohendet, P., (2005). On knowing communities, paper conference Advancing knowledge and the knowledge economy. January, Washington DC

Cohendet P. and Llerena P., (2003). Routines and communities in the theory of the firm, *Industrial and Corporate Change*, Vol.12, n°3, Avril, pp 271-297

Drucker, F. (1993). *Post-Capitalist Society*. New York: Harper Bus.

Fallah, N. (2012). Routines and their Influence in the Communities of Practice (CoPs): the Case of International Institutions. *Procedia-Social and Behavioral Sciences*, 46, 1532-1536. (Not reference in the paper).

Feldman, M. and Rafaeli, A. (2002), Organisational Routines as Sources of Connections and Understandings, *Journal of Management Studies*, 39, 3, pp. 309-331.

Gronn, P., (2002). Distributed leadership as a unit of analysis. *Leadership Quarterly*. 13(4), pp 423-451

Lave, J., and Wenger, E., (1991), *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press

McDermott, R. and Archibald, D., (2010) Harnessing Your Staff's Informal Networks. *Harvard Business Review*. 88

Montoni, M., Miranda, R., Rocha, A.R., and Travassos, G.H., (2004), Knowledge Acquisition and Communities of Practice: An Approach to Convert Individual Knowledge into Multi-organizational Knowledge, Advances in Learning Software Organizations, Lecture Notes in Computer Science, Vol. 3096, pp 110-121

Nelson, R. and Winter, S. (1982), *An Evolutionary Theory of Economic Change*. Belknap Press/Harvard University Press: Cambridge.

Nielsen, J. (2006). The 90-9-1 Rule for Participation Inequality in Social Media and Online Communities. Accessed online: www.nngroup.com/articles/participation-inequality/

Nonaka I, and Takeuchi H. (1995). *The Knowledge Creating Company*. New York: Oxford Univ. Press

OECD (1996). The Knowledge Based Economy, OECD/GD (96) 102, p.7.

Por, G. and van Bekkum, E., (2004). Liberating the Innovation Value of Communities of Practice [Electronic version], Amsterdam: Community Intelligence Ltd.

Powell, W., and Snellman, K. (2004). The knowledge economy. *Annual Reviews. Sociol*. 30: 199-220.

Smith, KH (2002). What is the 'Knowledge Economy'? Knowledge intensity and distributed knowledge bases. Discussion Paper. United Nations University, Institute for New Technologies, Maastricht, The Netherlands.

Spillane, J.P. (2006). *Distributive leadership*. San Francisco: Jossey-Bass

Spillane, J.P., Halverson, R., & Diamond, J.B., (2004). Towards a theory of leadership practice: a distributed perspective. *Journal of Curriculum Studies*, 36 (1): 3–34

Wasko, M. and Faraj, S., (2000). It Is What One Does: Why People Participate and Help Others in Electronic Communities of Practice, *Journal of Strategic Information System*, 9(2-3), pp 155-173

Wenger, E., (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press

Wenger, E., and Snyder, W., (2000). Communities of practice: The organisational frontier, *Harvard Business Review,* 78 (1), pp 139-145

Winter, S., (1987). Knowledge and competence as strategic assets. D. J.Teece, ed. The Competitive Challenge: Strategies for Industrial Innovation and Renewal, Ballinger, Cambridge, MA, pp 159–184

Zollo and Winter (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13: 339-351

Abstract

The international development sector is first and foremost a knowledge industry. Knowledge management (KM), knowledge exchange (KE) and mutual learning are essential in understanding what does and does not work in development. Using that knowledge to support replication and scale-up of interventions is critical.

KE is one of the key pillars of UNICEF's (United Nations Children's Fund) Programme Monitoring and Response (PMR) Initiative. The key objective of the PMR Initiative,

launched by UNICEF Eastern and Southern Africa Regional Office (ESARO), is to enhance programme performance through a combination of strengthening real-time monitoring of community health and nutrition services, social accountability, evidence-based programme adjustments, and citizen feedback loops, and peer-to-peer learning within and among countries. The initiative has an integral KE component to strengthen knowledge sharing and foster continual learning by UNICEF, government staff, national communities and other partners in implementing countries.

This case study explores the challenges of sustaining a Community of Practice (CoP) in the development context, and examines the links between theoretical analysis – organisational routines - and actual practices in terms of managing CoPs in an international organisation, UNICEF. The importance of the KE element of a regional initiative is reviewed, through the CoP lens. The paper explores how the KE tool supports and reinforces peer-to-peer knowledge sharing and skills development, and draws out lessons from real practices, which could be applied in different sectors, as well as within health and nutrition sectors. The paper concludes that KE facilitated continual learning, adaptation and scaling up of innovation within and beyond the pilot countries of the initiative. Key success factors, challenges, and lessons learned in the context of implanting a KE strategy are identified and documented.

Keywords
Community of Practice, Knowledge Exchange, Knowledge Management, United Nations, Real-Time Monitoring

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[i] Tacit knowledge or personal knowledge is knowledge based on experience and observation. Explicit knowledge is knowledge that can be readily articulated, can be quantified, codified, accessed and verbalized.

[ii] In a famous book by Nonaka and Takeuchi (1995), a model is presented that illustrates knowledge transfer as a spiral process. Four paths of knowledge conversion were recognized as: (1) Tacit to Tacit (Socialization), (2) Tacit to Explicit (Externalization), (3) Explicit to Explicit (Combination), (4) Explicit to Tacit (Internalization). In CoPs, "socialization" means the procedure that transfers tacit knowledge in one individual to tacit knowledge in another individual. It is experiential, active and a "living thing," involving knowledge acquisition through direct interaction.

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iii The UNICEF Eastern and Southern Africa region (ESAR) encompasses 21 programme countries: Angola, Botswana, Burundi, Comoros, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Rwanda, Somalia, South Africa, South Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.
iv In Internet culture, a lurker is typically a member of an online community who observes, but does not participate. The exact definition depends on context. Lurkers make up a large proportion of all users in online communities. Reference: http://www.sciencedirect.com/science/article/pii/S0747563214003008