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INSTITUTE OF
SOCIAL POLICY

From Information to Application: How Communities Learn*

by

**Sherri Torjman, Eric Leviten-Reid,
*Christopher Camp and Anne Makhoul***

September 2001
ISBN: 1-894598-93-8

*The Caledon Institute gratefully acknowledges the financial support for this work from
the Applied Research Branch of Human Resources Development Canada.*

The authors gratefully acknowledge the research contribution of Paul Heisler.

*Complete 90-page annotated bibliography available on
the Caledon Institute website at www.caledoninst.org

Executive Summary

The purpose of this review is to summarize selected literature sources on the subject of community learning and to identify the key themes arising from these sources. The findings of this work will be applied to the subsequent stages of the Understanding the Early Years project being undertaken by the Department of Human Resources Development Canada.

The first stage of the Understanding the Early Years project focussed upon the collection of indicator data in six communities across the country: Southwest Newfoundland, Prince Edward Island, Toronto (North Quadrant), Winnipeg (Inner city), Prince Albert and Coquitlam, BC. The next stages of this project are intended to develop the tools to help communities work with this data.

A wide range of materials from a number of diverse fields was explored for this literature review. While the materials derive from various fields, they can be grouped into one of two categories. The first category of literature can be considered highly theoretical and focussed upon the major dimensions of learning from biological, psychological and social perspectives. These sources typically present 'high-level' concepts that may be applied to everyday practice. This work generally was carried out by academics and policy institutes, and was published by universities or organizations like the Organization for Economic Co-operation and Development (OECD).

Practice-based sources comprise the second category of work included in this literature review. The information was prepared and published by voluntary organizations, such as private foundations and local nonprofit groups, actively involved in community-based projects.

Clearly, the individual sources from these two categories had diverse starting points from which they approached their respective subject matter. But despite the profound differences in perspective and substance, the review found surprising consistency in the overall conclusions. These can be summed up in three major themes.

First, there is a significant difference between information and knowledge. Although the terms often are used interchangeably, information cannot really be considered knowledge until it is applied - until someone uses it. This conclusion comprises the first basic element in the learning equation.

Second, the learning process must take into account the needs, concerns and interests of the learners or potential users of information in order for it to be applied effectively. The learners or potential users are as important a factor in the learning equation as the material being disseminated.

Third, the conversion of information into knowledge used to be considered a linear, unidirectional process. Learning was conceived as a one-way transfer of information from teacher to student

or expert to layperson. The focus was on production and distribution only. It was assumed that the recipient of information had learned the material simply by virtue of having received it.

All the sources from diverse fields concurred that the passive, linear model of learning is ineffective. Learning takes place, by contrast, through two-way interaction in which the potential users of information are actively involved in exploring a given challenge. They must engage with the information in some meaningful way, preferably through a mediating process that ideally involves interpersonal interaction. The literature also explicitly or implicitly points to the importance of social capital in facilitating learning.

The major findings from the literature are summarized below within these three dimensions of the learning process: the information or message; the learners or potential users of the information; and the interactive, mediating process that enables the transition from information to knowledge. The primary focus, however, is upon the third dimension in which the actual process of learning is deemed to occur.

Purpose of this Review

Understanding the Early Years is a national research initiative being spearheaded by the Department of Human Resources Development Canada in partnership with selected communities across the country. The initiative makes available information to help strengthen the capacity of communities to make informed decisions about the best policies and most appropriate programs to serve families with young children. It seeks to provide information about the influence of community factors upon children's development and to enhance community capacity to use these data to monitor child development and create effective community-based responses.

There is increasing evidence to support the importance of investing in the early years in child development. Research shows that these formative years are critical, and that the kind of nurturing and stimulation which children receive can have a major impact upon the rest of their lives. The Understanding the Early Years project seeks to encourage communities to apply this research in ways best suited to their unique profiles.

The first stage of the project involved the development of community profiles using empirical data and community mapping. These profiles were created by formulating a set of indicators of children's intellectual, emotional and behavioural development in each of six communities: Southwest Newfoundland, Prince Edward Island, Toronto (North Quadrant), Winnipeg (Inner city), Prince Albert and Fraser North, BC. The challenge for these six communities as they move into the next

phase of the Understanding the Early Years project is to apply the research findings on early childhood development in ways appropriate to their respective profile. An additional seven communities have been selected to carry out a similar process of developing community profiles using empirical data and community mapping.

Relevance

This review is directly relevant to the Understanding the Early Years project which seeks to determine how six selected communities can best apply the findings from key research on early childhood development. But the work has relevance beyond its application to this specific project.

Nations today increasingly are being categorized according to their ability to produce, apply and create knowledge. Industrialized countries are being referred to by the catchphrases ‘information society’ and ‘knowledge economy.’ More attention is being paid to the ‘digital divide’ between the North and South – in recognition of the fact that the developing world falls well behind in its capacity to generate and apply information. The digital divide also is used to characterize the inequities in access to knowledge and information technologies between the have’s and have-not’s within developed nations.

The 2001 Speech from the Throne stated the federal commitment to building a world-leading economy driven by innovation, ideas and talent. It pointed out that Canada could realize its potential only by investing aggressively in the skills and talents of people, and that building a skilled workforce must be a national effort. It committed the federal government to work with provinces and territories and with nongovernmental organizations to ensure that all Canadians achieve their learning goals.

The 1999 Throne Speech was entitled *Building a Higher Quality of Life for All Canadians*. It identified the various actions required to improve the quality of life for all Canadians, including a comprehensive strategy for the transition to a knowledge-based economy and investment in child development.

At the international level, the OECD has devoted considerable attention to the knowledge economy and to the issue of learning. The demand for learning has grown as a result of several key factors – information and communications technology, the globalization of economic activity and the trend towards greater personal responsibility and autonomy. The central role of competence and knowledge in stimulating economic growth has been widely recognized in recent international literature.

The OECD asserts that changing economic and social conditions have given knowledge and skills – human capital – an increasingly vital role in the economic success of nations and individuals [OECD 2001: 17]. Human capital refers to the skills and other attributes of individuals that confer a range of personal, economic and social benefits. It is the “knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” [OECD 2001: 18].

What is particularly interesting about recent OECD publications is the reference to the importance of social capital as a foundation for the production of human capital. Human capital is developed in specific cultural settings and is mediated by human processes. The intrinsic links between social capital and human capital are discussed below.

If knowledge and learning are indeed the new global frames of reference, then it is essential to understand how individuals as well as organizations and communities acquire and apply information – how they transform data into knowledge.

This review is relevant for other reasons as well. Policy-makers are more concerned than ever with the potential usefulness of scientific information. The federal government, in particular, has been promoting the concept of ‘evidence-based decision-making.’ The Prime Minister’s National Forum on Health, for example, defined evidence-based decision-making as “the systematic application of the best available evidence to the evaluation of options and to decision-making in clinical, management and policy settings” [Canadian Health Services Research Foundation 2000: 1].

The Canadian Health Services Research Foundation was formed in 1997 to facilitate evidence-based decision-making in Canada’s health sector. This type of decision-making requires improved cooperation between researchers and decision-makers. The Foundation has adopted the philosophy of ‘linkage and exchange’ to increase the relevance and use of health services research.

This literature review also found that the Chedoke-McMaster group at the Centre for Studies of Children at Risk is concerned about how well community studies are picked up and applied by other community groups and policy-makers. The question is so central to its work that the Centre is conducting research on how information is used – a study whose findings certainly will be relevant to the next phases of the Understanding the Early Years project.

Finally, this literature review is important in light of current attention to the concept of community capacity-building. There has been growing interest in recent years in the role that community organizations, local groups and citizens can play in promoting economic and social well-being. Governments are beginning to understand more clearly their role in enabling voluntary activity; the Voluntary Sector Initiative at the federal level is illustrative of this greater awareness.

The focus on community capacity-building has led to renewed interest in many of the concepts rooted in the practice of community development. The conference proceedings “Rising Tide: Community Development for a Changing World” highlighted the importance of community development not only for communities but also for cooperative efforts involving businesses, government, nonprofits, higher education and citizen groups. The Conference focussed upon the challenges to the many facets of community: social, economic, health, education, land use and other developmental issues, including how communities are becoming innovators in response to change.

Intervention at the community level typically runs counter to the practice of institutional models that characterize current educational systems. The top-down, ‘we know what is best for you’ institutional model is ineffective. It certainly is not appropriate as a model for community-based learning.

Bodies of Literature

Several bodies of literature were explored for the purposes of this review. The Department of Human Resources Development Canada had identified an initial list of material. Community development sources and indicators material are heavily represented in this sample – likely because the first phase of the Understanding the Early Years project had focussed upon the formulation of early childhood development indicators in six communities throughout the country.

While this information is important, it does not address the core challenge to the subsequent phase of this work: how communities can take the next steps to apply relevant information and research findings to their respective communities. In order to find material directly relevant to this challenge, additional literature sources from several areas were incorporated in this review.

Selected references from the field of adult education were included here. The principles of adult education were seen as relevant to this work in that they consider many of the ways that learning takes place outside the classroom and the bounds of traditional education that involves a teacher and a student.

Perhaps more directly relevant from a practical perspective was the range of sources that focussed upon the concept of applied dissemination. These sources were prepared primarily by private foundations concerned with ensuring the greatest return for a given investment. The highest return typically comes when a project that has been successful in its process and/or outcomes can be applied more broadly to other communities or issues. The outlay for the original model is then seen to generate far more success than the single project alone in which the initial investment was made.

The focus on dissemination has been identified as the ‘third wave’ of activity related to the understanding and promotion of knowledge utilization [Backer 1991]. The first wave spanned the years 1920 to 1960. The second wave took place from 1960 to 1980 during which large-scale federally sponsored dissemination and implementation studies were conducted. The focus of the third wave currently under way is upon the spread and application of information.

The sources on applied dissemination link closely to another body of work consulted for this review: learning communities. Several key references were identified from the learning communities movement which is active primarily in British Columbia and in various parts of Europe, especially the UK. It is of interest that the material on learning communities tends to focus upon community organizing dimensions rather than upon the process of learning or knowledge dissemination. However, this focus is entirely appropriate given that community involvement and participation are essential elements in the active engagement of communities around knowledge application.

The community focus of the learning communities movement led us to an investigate selected references on social capital. These references point to the importance of social networks and norms in achieving social objectives. But these networks are also being understood increasingly as the building blocks to the formation of human capital. Social capital is effectively a foundation or platform for the acquisition and application of knowledge. In fact, the wide range of sources from disparate fields are quite consistent in this conclusion – even though they may not make explicit reference to the concept of social capital.

Finally, despite the range of sources consulted for this work, the various citations touch only the tip of the iceberg in terms of possible materials that could have been explored. Many of the sources themselves acknowledge the vast body of work in the field of applied dissemination and adult education in particular. “The literature on knowledge utilization spans a number of disciplines including rehabilitation, education, sociology, psychology and marketing. The literature now includes an estimated 10,000 citations” [National Center for the Dissemination of Disability Research (NCDRR) 1996].

An exhaustive review of even a fraction of these sources clearly was beyond the scope of this project. Nonetheless, the findings summarized below can be considered significant in that they reflect striking agreement and coherence in the overall conclusions despite the unique lenses from which the diverse sources were addressing the issue.

Key Findings

The major findings from this review on how communities learn are grouped into three key themes: the information, the users and the mediating process.

Theme #1: The Information

A common theme that emerged from the literature review involves the fact that the process of learning used to be understood as a ‘linear’ model. Information was transmitted to a learner or user, sometimes directly from the source but often indirectly through an intermediary, such as a teacher. The fact that the information was ‘received’ led to the automatic assumption that it was ‘learned.’ The information simply had to be clear enough to be understood.

The concept of learning has evolved significantly to the point where we now know that it is a far more complex process than originally understood. It requires an awareness of the potential users and their interest in the information. Learning implies a ‘translation’ process in which the information is processed in a meaningful way to ensure its use. But it also includes a far more sophisticated understanding of the information itself.

The review of the literature found a distinction between information and knowledge. While the terms often are used as synonyms, such use is actually incorrect. For Brown and Duguid, the key lesson is to realize that information does not equal knowledge. “Knowledge usually entails a knower ... where people treat information as independent and more-or-less self-sufficient, they seem more inclined to associate knowledge with someone” [Brown and Duguid 2000: 119]. Knowledge also appears “harder to detach than information... it is hard to pick up and hard to transfer” [Brown and Duguid 2000: 121]. Finally, “knowledge seems to require more by way of assimilation. Knowledge is something we digest rather than merely hold” [Brown and Duguid 2000: 120].

This conclusion raises the question as to what is meant by the ‘application’ of information. The literature implies that application involves the actual use of information – whether it is a single individual trying to understand the dimensions of a certain issue, an organization seeking to assess the needs of a given population or region, or an entire community attempting to put in place an initiative that affects the lives of many of its members. Application can take place at the individual, organizational or community levels. It can range from a private, discrete process of ‘digesting’ information so that it reshapes perception to a public, high-profile effort involving many players who take action in pursuit of a given objective.

This translation of information into knowledge leads the authors to assert that “the importance of people as creators and carriers of knowledge is forcing organizations to realize that *knowledge lies less in its databases than in its people*” [Brown and Duguid 2000: 121 emphasis added]. In order to facilitate the transfer of knowledge between individuals and groups, it is important to be aware of the discrete, human aspect of knowledge transfer, one that inheres in human relationships and is often stifled by an over-reliance on information technology.

In short, information does not become knowledge until it is applied. It needs to be used if it is to be considered knowledge in the true sense of the word. Information in and of itself is not knowledge unless someone is using it.

But there are even finer distinctions to be made in terms of knowledge. Social scientists Lundvall and Johnson differentiate between four types of knowledge: know-what, know-why, know-how and know-who [OECD 2001: 11]. These four types of knowledge are relevant for different purposes and may require a distinct methodology for their dissemination.

‘Know-what’ refers to basic factual information. In this case, knowledge equates closely with information and can be broken down into its constituent parts and communicated as data.

‘Know-why’ implies knowledge about the principles and laws of motion or change in nature, the human mind and society. Know-why effectively provides the explanations that lie beneath the factual data. It is the type of information that seeks to explain why certain patterns of behaviour occur.

‘Know-how’ represents yet another category of information. It refers to the skills required to carry out certain actions or the ability to do something.

The OECD contends that know-how “is the kind of knowledge with the most limited public access and for which mediation is the most complex. The basic problem is the difficulty of separating the competence to act from the person or organization that acts. ... Attempts to use information technology to develop expert systems show that it is difficult and costly to transform expert skills into information that can be used by others” [2000: 16]. The consequence of this is that know-how “is never a completely public good and that firms get access to it only by hiring experts or merging with companies with the knowledge they want” [2000: 16].

Know-how is linked closely to the final category: ‘know-who.’ The latter involves information about who knows what and who knows what to do and how to do it. But it also involves the social ability to cooperate and communicate with different kinds of people and experts [OECD 2000: 15]. Often, know-how is transmitted through apprenticeships, mentoring and community networks.

Distinctions also were made in selected references between the conceptual and instrumental use of information. The conceptual use seeks changes in knowledge, understanding or attitude. The instrumental use of information, by contrast, seeks changes in behaviour and practice. Moreover, the literature has found that materials which emphasize positive behaviour tend to be applied more broadly than information which focusses solely or primarily upon the negative consequences of behaviour [OECD 2000: 22]. This finding is embedded in some of the psychological theories focussed on learning, which is a biological, psychological and social phenomenon.

Recipients' perception of the source is another important dimension of information and its likelihood of application. Two key components are relevant here: perceived expertise and trustworthiness of the source. Expertise refers to how knowledgeable or competent the recipient or audience perceives the source or speaker. Trustworthiness means the degree to which the audience believes the communicator is honest and sincere. In some cases, the source of information is as important as the content – especially when it comes to information that seeks to promote behavioural change. Users tend to accept assistance, information and ideas from sources they know and trust.

In fact, credibility is just one factor for assessing the potential of a particular innovation for successful dissemination and utilization. Other factors include relevance (the appropriateness of a particular innovation for coping with a persistent and important problem of concern); relative advantage (the option represents a better choice than other options); and ease of understanding and compatibility (the innovation fits with established values, norms and procedures) [Glaser, Abelson and Garrison 1983].

Davis and Howden-Chapman point out that several 'models of influence' exist when it comes to thinking about information and how best it should be transferred [1996]. They conclude that there is a greater uptake of results when researchers involve managers and policy-makers in developing the research focus and framework, and when they take some responsibility for seeing their work developed into policies. To be influential, research must be timely, locally based, well funded and done collaboratively.

In short, the literature from diverse fields coheres around a common message. In order to ensure that information is applied, there should be some early consideration of the needs and interests – and ideally engagement of – potential users.

Theme #2: The Users of Information

Greenwood and Levin point out that opposition to the professional-expert model of organizational development and problem-solving began to gain momentum in the early 1980s [2000]. The collaborative approach to knowledge generation, sharing and application has gained global momentum. Most studies now suggest that research utilization is improved when researchers gear their work to use by specific groups [NCDDR 1996: 18].

The literature on applied dissemination, in particular, makes clear that information users will implement change more readily and effectively if they understand the process and flow of activities involved. Programs and practices must be adapted to the needs of individuals, organizations and communities.

A document assessing the use of community reports, “Tracking the Use and Impact of a Community Social Report: Where Does the Information Go?,” concluded that community reports are more likely to be read if potential users are engaged in the process of report production and if the reports are disseminated to the appropriate target audiences.

The new approaches to the application of information have shifted their frames of reference from the delivery agent to the user. Lipton and Wellman, for example, have developed a model to assist educators change their orientation from teacher-centered to learner-centered learning [2001]. This focus on accountability demands collaborative efforts and results, in which groups of educators seek patterns and practices of success.

Learning also takes place within organizations. Malhotra contends that leaders in learning organizations are responsible for learning. A learning organization assesses leadership ability by looking at *how* individuals learn, not what they learn [1996].

A report by the Institute for Work and Health considers the information sought by decision-makers [2000]. It concludes: “The major themes that come out of this research for communicators are to be aware of what is relevant and important to each sector, focus on solutions as well as problems, build on existing knowledge, and be aware that most decision-makers get their information through informal linkages and exchanges they have built with their peers and ‘experts’” [Institute for Work and Health 2000]. This conclusion illustrates the important role that ‘know-who’ plays in filtering and interpreting relevant information.

While many of the authors emphasize the potential benefits of information technology to the enhancement of collaboration between individuals, they do so with caution. Abbott and Ryan are explicit in their warning that information technology be used as a supplement to, not a replacement for, the more important process of learning by doing [2001]. Information technology complements

the far more beneficial learning atmosphere created by direct, interactive personal contact in learning.

Even the promoters of the Community Learning Networks model (described below), which relies heavily on the use of information technology, acknowledge the importance of the community factor – i.e., the need for a human context or community filter for information or learning delivered with the technology [website document: 69]. There is no substitute for a “supporting environment with a human face” [70].

Again, the diverse perspectives add up to a common theme: Users are far more than passive recipients of information. They should be seen instead as actively engaged in resolving issues and constructing their own knowledge. The translation of information into knowledge is a dynamic – and interactive – process that involves deliberative engagement with the material [NCDDR 1996: 9].

Theme #3: The Mediating Process

If the simple possession of information does not necessarily ensure its use, then the challenge becomes finding the most effective means to facilitate its application. The receipt of information does not mean that it will be understood, that its significance will be appreciated, that it will influence decisions or that it will have an impact upon behaviour.

Understanding the keys to effective learning: Context, action and collaboration

The proponents of the 21st Century Learning Initiative contend that the human brain is not well suited to independent and/or decontextualized work, it does not simply ‘absorb’ information and it is by no means a mere *tabula rasa*. Studies continually have shown that children, and indeed all human beings, have an innate “desire to [act] in social, collaborative, problem-solving ways” [Abbott and Ryan 2001: 14].

Abbott and Ryan contend that “the human mind is better equipped to gather information about the world by operating within it than by reading about it, hearing lectures on it or studying abstract models of it” [2001: 17]. In fact, “human memory for isolated facts is very limited. Knowledge is retained only when embedded in some organizing structure. ... Skills and knowledge are not independent of the contexts in which they are used. Instead, they are attuned to, even part of, the environments in which they are practiced” [2001: 17].

In their study of the Western education system, Abbott and Ryan uncover a comprehensive and compelling theory of learning. For them, learning is best undertaken in an atmosphere of direct collaboration between apprentice and master: a relationship defined by the practice of apprenticeship.

The preceding discussion highlights the importance of direct involvement between ‘teacher’ and ‘pupil’ in the process of learning. In order to effectively and efficiently absorb and assimilate knowledge from an authority, the learner ideally should have direct access to the source of that information. Moreover, the relationship between pupil and instructor should be a collaborative, two-way relationship supported by the common expectations and sanctions imposed upon them by shared norms. Relationships bolstered by mutual trust between source and recipient of information play an important role in that individuals are more likely to accept information from those they trust.

These conclusions are reinforced by the literature sources consulted on adult education. “The adult learns skills and strategies through performing the relevant activities. Those learned through observing, reading and listening are observational and passive. Those learned through experimenting, experiencing, writing and talking are discovery and active. There are numerous ways for the teacher or planner to sequence these skills and strategies through activities and to develop the interpersonal relationships required to carry the activities out. These organizing principles indirectly help adults learn how to organize their own learning strategies and interpersonal relationships” [Brundage and MacKeracher 1980: 2].

Developing an active mediation process: Linking information and action

The development of an active mediating process thereby becomes the key challenge. Here the diverse literature sources can be classified into two main streams. The first stream deals with the components of effective dissemination – the most appropriate ways to spread information to potential users once it has been developed. (The literature actually makes a distinction between dissemination and effective dissemination. The former is not necessarily the latter; the simple act of disseminating material does not mean that it has been done effectively.)

The second stream of literature focusses more upon how users can engage actively with information to apply it to their respective areas of interest and concern. While the first stream is concerned primarily with the most appropriate ways to ‘spread the word,’ the second deals with application by the intended users. Ideally, the two activities should be understood as intrinsically linked.

Sharing information: Clarity, relevance and accessibility

With respect to the first stream, the dimensions of dissemination relate both to the message and to the messenger or method of transmission. Backer, for example, discusses the need to ‘transform’ the message to be disseminated to make it meaningful to user groups [1988]. Guidelines for transforming information include the provision of simple, clear and repeated messages. What is known about an innovation must be translated into language that potential users can understand. Dissemination must be characterized by brevity, repetition and reinforcement. The materials must have a low level of abstraction. In the area of scientific information in particular, readers tended to process and understand material far more readily when it included analogies.

Westbrook and Boethel argue that effective dissemination strategies are oriented to the needs of the user, incorporating the kinds and levels of information required into the forms and language preferred by the user [1997]. Effective dissemination employs varied methods – e.g., written information, electronic media and person-to-person contact.

Effective dissemination draws upon existing resources, relationships and networks to the greatest extent possible while developing new resources as required. It builds in quality control mechanisms to ensure that the information to be applied is accurate, relevant and representative. Effective dissemination includes sufficient information to help users understand the basic principles underlying certain practices and the settings in which these practices can be used most productively. Resources in the form of technical assistance may be required to help apply the information.

The literature also recognizes that the various formats available for the dissemination of information have increased rapidly with new technological developments. The communications environment has shifted dramatically and the means of dissemination have expanded exponentially. But the proliferation of electronic communications has given rise to new questions related to equity, access and effectiveness. Many consumers lack the tools for accessing information and the literature increasingly is expressing concern about the potentially negative impact of the ‘digital divide’ when it comes to the ability to access and apply information.

Numerous sources pointed to the fact that dissemination is more than a linear, mechanical process of transfer in which knowledge is packaged and moved from one place to another. It is, rather, a complex nonlinear, interactive process dependent on the beliefs, values, circumstances and needs of the intended users. “Dissemination is far more than the simple distribution of paper or products; it is a process requiring a careful match among the creation of products or knowledge, and the context of that creation; the target audiences; and the content, media, formats and language used in getting the outcomes into the hands (and minds) of those target audiences” [Westbrook and Boethel 1996].

Collaborating for change: The role of social capital

Knowledge is far more than a discrete entity; it is a two-way process that extends the job of dissemination to include the provision of supports for actual changes. It is at this point that the concept of social capital becomes particularly relevant. Social capital refers to the features of social organization such as networks, norms and social trust that enable coordination and cooperation for mutual benefit [Putnam 2000]. The leading Canadian researcher in this area describes social capital as the relationships, networks and norms that facilitate collective action [Helliwell 2001: 6]. Social capital is also seen to play an important role in helping economically disadvantaged children and their families realize healthy lives [Potapchuk et al. 1998].

Putnam identifies two types of social capital: localized and generalized. Localized social capital exists within individual families, neighbourhoods and associations. Generalized social capital brings together more diverse groups of people and runs across traditional social and physical boundaries. Both are considered crucial ingredients for healthy community functioning [Potapchuk et al. 1998].

Social capital is given concrete expression in several ways – particularly through various forms of civic engagement. Engagement in civic life is marked by active participation in public affairs, with an emphasis on shared rather than personal interest. Social capital typically is expressed through participation in associations or social structures of cooperation. These include churches, political parties, neighbourhood associations, sports or cultural clubs, and cooperatives, and active participation in civic activities, such as volunteering or voting [Putnam 2000].

Social capital is also given expression through the process of community capacity-building [Aspen Institute 1996]. Building community capacity essentially involves rethinking the use of community resources. It entails scoping out the broad range of resources available in any given community and understanding that these resources are assets that may be harnessed for building stronger communities [Kretzmann and McKnight 1995]. Social capital emphasizes the notion of investments and assets that bring benefits not fully appropriated by the individuals making the investments.

Social capital is important to this discussion for several reasons. First, it appears to provide the basis for how communities can ‘make things happen’ collectively. It is through the process of bringing people together and forming relations and networks that challenges can be most effectively addressed.

Potapchuk et al., for example, develop a model of community building based on the core idea of social capital [1998]. The model consists of three basic levels of social organization (family,

neighbourhood and community) and four elements deemed critical to building a healthy civil society (social interaction, social capital, civic infrastructure and civic culture).

Social interaction refers to the connections with others that individuals and organizations experience on a daily basis. Civic infrastructure includes formal and informal processes of decision-making, public involvement and civic engagement. A healthy civic infrastructure creates strong linkages among families, their neighbourhoods and the whole community. Plentiful stocks of localized and generalized social capital are needed to enable people to work together to address the challenges of civic life. Civic culture is defined as the sense of identity shared by a community and expressed through its character, cultural life and the way individuals and organizations relate to one another [Potapchuk et al. 1998].

But social capital has another equally important role. It appears to act as the basis for learning within individual families as well as learning within communities. The literature makes clear the fact that learning is as much a social process as an individual activity.

Coleman's work is directly relevant to the learning process. He develops his definition of social capital by distinguishing it from other forms of capital: physical capital "as embodied in tools, machines, and other productive equipment" and human capital, which is created "by changes in persons that bring about skills and capabilities that make them able to act in new ways. ... Human capital is less tangible, being embodied in the skills and knowledge acquired by an individual, social capital is less tangible yet, for it exists in the *relations* among persons" [Coleman 1998: 100]. The presence of social capital within a given organization, such as the family, is central to the dissemination of human capital or knowledge between members of a community.

Key to understanding the concept of social capital and its role in diffusing human capital throughout a given community is the presence of what Coleman calls "information channels." This term refers to information "that inheres in social relations" [Coleman 1988: 104]. Information possessed by one member of a community is available to other members of that community in proportion to the amount of social capital they share. For members of such a community, this sharing has the effect of reducing the overall cost of obtaining similar information or knowledge from outsiders. Moreover, individuals in a community tend to trust one another more than outsiders and will be more likely to accept and assimilate information that comes from members of their own community.

Coleman's use of the family as an example of the transfer of human capital through the networks of social capital can shed light on how knowledge can be transferred more effectively between members of different departments in a hierarchical organization. In the case of the family, the likelihood of a successful transfer of human capital from parent to child is dramatically reduced in the absence of a close-knit and collaborative environment provided by social capital within that unit.

The intergenerational transfer of human capital can be understood as a transfer of knowledge between groups in a hierarchical organization, such as a transfer of knowledge between theoretical innovators and those responsible for putting such innovations to practical use. A central problem in the dissemination of knowledge between different branches in an organization is found in the lack of an effective bridging, collaborative environment between the two.

Engaging in learning-based community development

Various literature sources consulted for this review went beyond the theoretical conceptualization of interactive processes to describing how this interactive engagement might be structured. Most of the discussion on learning at the community level is consistent with community development practice.

The learning communities material makes this link most explicit. Faris and Peterson argue that every form of community development can be informed and infused by a learning-based approach [2000]. “The learning-based approach goes beyond the traditional educational approach in that it focusses upon learners and learning rather than teachers and teaching. It goes beyond mere information transmission and requires a two-way interactive dialogue. It recognizes that information must be given context, application and meaning to become useful knowledge. A learning-based approach to community development applies learning, using the community as the classroom or laboratory; it emphasizes experiential learning including apprenticeships, internships and collaborative and peer learning. It mobilizes the resources of both the formal and informal learning system” [2000: 55].

One form of learning-based community development that has emerged over the past decade is the ‘learning communities’ movement. It evolved as a result of the Conference on Learning Communities held in Sweden in 1992. The UK employs the following definition. “A learning community is any city, town or village, and surrounding area that, using lifelong learning as an organizing principle and social goal, promotes collaboration of the civic, private, voluntary and education sectors in the process of achieving agreed upon objectives related to the twin goals of sustainable economic development and social inclusiveness” [2000: 55]. The formation of partnerships and collaborative arrangements is seen as an essential element in promoting learning-based communities.

In fact, community development is sometimes viewed as a process of social learning. “As social learning, community development engages people. ... They learn through group activity to define problems affecting them, to decide upon a solution and to act to achieve the solution. As they progress, they gain new knowledge and skills” [2000: 107].

A related but distinct body of literature also has emerged in recent years with respect to Community Learning Networks. These have evolved in response to the changing needs of the ‘new economy’ – a knowledge-based economy with fundamental information and communications technology implications for communities [New Economy Development Group 1998: 1]. Community Learning Networks are community-based structures designed to support learning for their members. They are community-controlled structures and systems aimed at furthering community development and enhancing the lives of their constituents by supporting and encouraging lifelong learning [2000: 14].

The literature points to the importance of creating effective collaborative partnerships in establishing and operating community learning networks. The movement accepts the usefulness of technology as a tool for mobilizing a broad cross-section of people, creating networks and identifying underutilized resources [2000: 2].

The conceptual base of this approach lies in the growing recognition that many resources exist within a community. When tapped, these are likely to have a positive impact upon a community’s vitality as well as its capacity and interest in learning. As community networks collect and collate community knowledge, the potential exists for collective, experiential learning and the growth of local participation. “A consequence of these trends is the blurring of distinctions and boundaries between learners and trainers. The shift in learning is from an educator-centered to a learner-centered approach and from a focus on organization, government or institutional needs to one focussed upon community-centered needs” [2000: 12].

Community learning: An unfolding process

The literature reviewed for this study also included several other forms of community development processes. They all note, either implicitly or explicitly, that ongoing learning is an intrinsic component of community development.

The International Council for Adult Education, for example, discusses the concept and practice of participatory research as a means to enable marginalized groups to overcome the challenges of social inequality and exploitation [1982]. Participatory research seeks to “play a liberating role in the learning process by promoting the development of a critical understanding of social problems, their structural causes and possibilities for overcoming them” [International Council for Adult Education 1982]. A defining feature of participatory research is that it “calls for democratic interaction between the researchers and those for whom it is being conducted” [International Council for Adult Education 1982].

Participatory research consists of three interrelated processes. The first step involves the collective investigation of problems and issues along with the active participation of the constituency in the research process. The second stage entails a collective analysis in which the constituency develops a better understanding of the problem including its underlying social, economic, political and cultural elements. Finally, participatory research seeks to create collective action by the constituency aimed at short- and long-term solutions.

The process begins with personal concrete experience and moves to include theoretical analysis and action aimed at change. Evaluation of the process serves to deepen the understanding of the challenges associated with achieving constructive change. Collective discussion is the binding thread through which people come to understand the issues they are facing and determine ways of working together to address them.

Cancian and Armstead argue that participatory research is a process that develops through working with a particular group of people. They note that: “A precise general definition would be self-defeating insofar as it would block the group from developing their own methods” [1990: 3]. Despite this cautionary note, the authors identify five central aspects of participatory research: participation in the research by the people being studied; inclusion of popular knowledge, personal experiences and other nonscientific ways of knowing; a focus on empowerment and power relations; consciousness raising and education of the participants; and political action” [1990: 3].

Kretzmann and McKnight set out concrete steps for their process of asset-based community development [1993]. The first step involves a thorough mapping of the capacities and assets of individuals, citizens’ associations and local institutions. The next step is to build relationships among these local assets for mutually beneficial problem-solving. The community’s assets are then mobilized for economic development and information-sharing purposes. A broadly representative group should be convened to build a community vision and plan. Activities, investments and resources can be leveraged from outside the community to support locally defined, asset-based development.

Buysse, Wesley and Skinner contend that community development, by definition, “offers a process for implementing change with respect to shared decision making with parents and other community members” [1999]. The process involves forming a team, defining community needs and resources, defining the vision or goal, developing possible strategies and evaluating the outcomes related to the change effort.

The authors report on their research in which a Native American community and a Latino community, both in remote areas of North Carolina, were selected as study groups. Both had requested assistance in developing early care strategies and both were located in areas in which existing organizations had expressed interest in working collaboratively.

The results of their research found that parents and human service professionals, by working together, learned about the issues and challenges faced by the other, thus forging new relationships. Parents who became involved in the community process developed stronger voices and played more leadership roles related to child care and early intervention. Project-sponsored events served as a springboard for additional initiatives identified by community members who generally showed a greater awareness of local needs and resources related to child care and early intervention.

Lipton and Wellman set out a three-phase collaborative learning cycle, which comprises what they call ‘data-driven dialogue’ [2001]. “As we learn to link statistics and stories, numbers and narrative and data and dialogue, new possibilities for community building and richer forms of professional practice emerge that will better serve student learning in these changing times” [Lipton and Wellman 2001: 18]. The three phases of data-driven dialogue include: activating and engaging, exploring and discovering, and organizing and integrating.

‘Activating and engaging’ involve engaging prior knowledge, skills and understandings; expanding the individual and group knowledge base; and surfacing and articulating key frames of reference. The strengths of this phase include showing respect for existing expertise and experience, developing readiness within the group, articulating the current frames of reference, and activating cognitive and emotional resources. The dangers at this stage include the possibility of too much data and wide discrepancies in the perceptions about or understanding of the data.

‘Exploring and discovering’ refer to analyzing the data by examining and differentiating information in light of current frameworks; investigating hypotheses, concepts and principles; and reconsidering and tentatively refining the frameworks. The authors point out that at this stage of the learning dialogue, the use of large vibrant data displays can help promote a shared learning experience at the community level. Potential problems include the fact that time often is wasted in sorting out critical information details. Moreover, data on any given issue is almost always incomplete. As a result, groups may rely on too little information and develop premature solutions for ill-defined problems.

‘Organizing and integrating’ involve generating theory by synthesizing and representing information; developing frameworks and models; and cataloguing and indexing new understandings. This stage promotes the formulation of multiple theories of causation prior to developing theories of action. These lead, in turn, to planning, problem-solving and action research projects, thereby continuing the cycle of inquiry.

The article “Developing a Neighborhood-Focused Agenda: Tools for Cities Getting Started” defines the key elements involved in building strong neighbourhoods – soliciting stakeholder input and involvement, and using neighbourhood-level data [Jones 2000]. Examples of collaborative

strategies emerging in cities across the US are included. The neighbourhood-based approach to problem-solving rests on inclusion and partnership.

Stakeholder identification and involvement are critical steps in getting started. These steps involve the identification of common ground, centres of strength and opportunities for action in the community. It is at this stage that tension points and obstacles are uncovered. The author notes that planning processes which include stakeholders are sometimes more difficult, but are always more successful [Jones 2000].

Data collection begins with identifying important community indicators. Census data, administrative data, and special surveys and inventories can be used to identify and monitor neighbourhood conditions, raise awareness, mobilize stakeholders, set priorities, allocate resources, evaluate the effectiveness of strategies and advocate for change. Data storage and management are significant tasks to be addressed.

Finally, examples of program development from a cross-section of American cities show similar strategies. Systems of support must be developed with – not imposed upon – a neighbourhood. Diversity and broad community participation are valued. Neighbourhood strengths must be built on and existing assets harnessed, ideally through the development of partnerships and collaborations.

Hancock, Labonté and Edwards review the indicators of community health and present a framework for community planning discussions [1998]. The authors argue that “indicators are only useful if the process of developing and using them engages the community as a whole in examining what it wants to be, where it wants to go and what its values are; if the process provides useful and usable information to the community; and if the process increases the community’s knowledge and power” [Hancock, Labonté and Edwards 1998: 108]. The authors also recommend that a CD-ROM-based community indicators tutorial be developed and linked to local databases through the Internet.

The paper concludes that if indicators of population health are to have any meaning or benefit at the community level, they must “be developed in a process that engages both policy-makers and the general public, they need to be tailored to local needs and concerns (while having some potential for regional or national comparability) and they need to reflect not simply health status – no matter how broadly defined – but also environmental, social and economic determinants of health and the ‘healthfulness’ of the community itself” [1998: 108].

Busse and Wesley discuss community processes from the perspective of providing technical assistance that facilitates learning and the application of relevant information [1996]. Effective technical assistance for community development is based upon the principles of planned change, organizational development and consultation, not upon learning theory alone. Catalysts for change

are most productive when the persons they hope to influence are perceived as co-equals. The technical assistance approach must recognize community personalities and vary its services to meet diverse client expectations. Programs benefit by having access to a university and its research.

Other dimensions of effective technical assistance include the fact that activities undertaken as part of this process should promote local control and capacity-building through broad community involvement. The system must offer technical expertise, but also respect and challenge local stakeholders' values, beliefs and leverage potential. Participation by parents is an important ingredient – they become catalysts for change. Finally, technical assistants should invite collaboration with researchers to test theories and develop new technical assistance models. “The unique combination of external expertise and stakeholder involvement – the link between research and practice – is perhaps the most overlooked formula for effecting successful innovation and system-level change” [Buysse 1996: 9].

Another example of community process is told through a story about the KIDS COUNT program in London, Ontario [Simpson 1998]. In 1992, London public school system's Director of Education began a process of inquiry to address the health and learning needs of children in his community. A Compensatory Education Task Force investigated the obstacles to learning posed by poverty. Composed of teachers, principals, trustees, superintendants, social workers and parents, the Task Force surveyed parents and children and founded the KIDS COUNT concept of neighbourhood groups developing their own solutions. KIDS COUNT operates on the basis of four key principles. It is neighbourhood driven. It uses existing resources. It tries to bring about sustainable changes. It builds local leadership.

The Community Mobilization Tour, funded by the Atkinson Charitable Foundation, the Founders' Network of the Canadian Institute for Advanced Research, the Centre for Studies of Children at Risk and Air Ontario, identified projects which have tangibly improved the lives of children and youth. Several factors contributed to the success of these projects, including leadership at the government and political levels. Communities need local champions to create a vision, build trust among partners and move the agenda forward. High levels of trust must exist in the community; 'turf battles' ideally should be avoided or relationships should be rebuilt. Community collaboration and cross-sectoral approaches work better than categorical programs. Society must value children and parents. Adaptable universal programs help reduce inequities and stigmatization.

Finally, several references identified positive community processes from the perspective of awards and recognition. Awards for exemplary work typically are presented to communities that demonstrate participation of the public, private and nonprofit sectors, and key constituencies to the maximum extent possible. Award-winning communities recognize and involve diverse segments and perspectives (e.g., ethnic, racial, socioeconomic, age) in local decision-making. These communities creatively use and lever local resources. Award-winning communities generally demonstrate

cooperation across jurisdictional boundaries. They can identify significant and specific community achievements with clear demonstration of project results and impacts. Finally, they tend to be engaged in projects that address the community's most important needs and have the potential to improve the quality of life for all.

Lessons from the Ground

The key themes from the literature review are consistent with the Caledon Institute's experience 'on the ground.' Caledon has been engaged in several community projects in recent years. While these did not focus explicitly upon community learning, they nonetheless involved an ongoing process of learning.

Opportunities 2000 was launched in 1998 by the Lutherwood Community Opportunities Development Association (CODA) in Waterloo Region. The project's primary objective was to help 2,000 households move out of poverty by the year 2000. In order to achieve this objective, Lutherwood CODA sought to mobilize the entire community in creating opportunities to reduce poverty. These opportunities focussed on training, access to funds for business startup and the development of community enterprise. The partnerships included projects that helped meet basic needs, such as adequate housing, and that removed barriers to participating in the labour market, such as high transportation costs.

The project also added a unique feature: a Leadership Roundtable composed of representatives from business, low-income households, government and social agencies. The Roundtable provided overall direction to the project. Its members promoted awareness of the dimensions of poverty and possible solutions. In various ways, the Leadership Roundtable asked the community: "What can you do to reduce poverty?"

As one of the partner organizations, Caledon assumed the lead responsibility for the research, learning and dissemination aspects of the project. We conducted research in support of the community's efforts to identify effective poverty reduction strategies, documented the evolution of the project and the outcomes it achieved, and shared the lessons gained with interested community groups and policy-makers. Throughout the project, Caledon facilitated a learning consortium consisting of 14 community organizations and social service agencies from across Canada. Consortium members observed the Waterloo Region initiative, offered it feedback and guidance based on their own experiences and identified elements of OP2000's work that could be adapted for use in their local contexts.

A second community initiative relevant to this study focussed upon employment. In August 1998, the Chairman of the Regional Municipality of Ottawa-Carleton (now Mayor of Ottawa) approached the Caledon Institute to write a labour force development strategy for the Region (now City of Ottawa). The strategy was to be modelled on the multisectoral approach employed by Opportunities 2000.

Based on the recommendations in the report, Partners for Jobs was created. As part of this initiative, a Task Force on Employment was struck that included representatives from business, labour, anti-poverty groups, the educational sector, the social sector, and the federal and provincial governments. The goal of the Task Force was to create an employment strategy for Ottawa that identified short- and long-term training and work efforts targeted toward the unemployed and underemployed.

A multisectoral Working Group also was organized that included representatives from all levels of government, anti-poverty groups, labour, social organizations, training bodies, key employment sectors in the region (i.e., technology, life sciences, and tourism and hospitality) and a national research institute (Caledon). Its work focussed upon market-relevant training programs for the unemployed and underemployed; supports for self-employment and the creation of community business; policies to promote transition to work and job retention; and the collection of timely and relevant local labour market information. Research was conducted and published on the policy barriers to employment in the report *Survival-of-the-Fittest Employment Policy*.

In both cases, a common factor distinguished these projects from many other community initiatives: A diverse multisectoral group was convened for the purpose of guiding the work, identifying possible actions, selecting priorities, setting out a strategic plan and undertaking the work. It was the presence of a multisectoral coordinating body (the Leadership Roundtable in the case of OP2000 and the Task Force and Working Group in the case of Partners for Jobs) that likely held the key to the success of both projects. The coordinating body played the crucial role of transforming a wide range of information into knowledge. It was responsible for the selective application of the know-what, know-why and know-how in their communities.

After the multisectoral group had been formed, both projects set out to tackle their respective concerns by gathering relevant quantitative data. In the case of OP2000, two reports were written by the Caledon Institute – *Poverty in Waterloo Region* and *Poverty in Waterloo Region: An Update* – with poverty statistics derived from national Census data published by Statistics Canada. Partners for Jobs, by contrast, took its view from an assessment of the extent of unemployment and underemployment in the region based on statistics in a report prepared by the Ottawa Economic Development Corporation.

In the case of OP2000, the Caledon Institute was involved in gathering the quantitative data from the relevant national surveys and in helping to explain these data in a paper entitled “The Story Behind the Story: The Socioeconomic Context of Opportunities Planning.” The purpose of this explanatory piece was to explore the factors linked to poverty and to help members of the Leadership Roundtable determine the ways in which they might intervene in the problem. It essentially was a ‘know-why’ piece to provide some substantiation to the ‘know-what’ data earlier circulated.

This report was followed by a subsequent document called *Can Communities Reduce Poverty?* It set out four streams of action for reducing poverty: meeting basic needs, removing barriers, developing skills and promoting local development. Examples were provided of the possible actions that could be taken within each stream. The report helped highlight the fact that community groups tended to work independently in addressing these issues. It noted that various initiatives to reduce poverty could be carried out by organizations in the same field (e.g., the social sector) or through collaborative activity involving different sectors (e.g., community economic development and the private sector).

In the Partners for Jobs project, *A Labour Market Development Strategy for Ottawa-Carleton* outlined some of the actions that could be taken at the community level to tackle the problem of unemployment. These included the provision of training opportunities through ‘customized training’ involving educational institutes, community organizations and the private sector; improving the timeliness and relevance of local labour market information; providing technical assistance and venture capital for business start-up; and ensuring measures to facilitate the transition from welfare to work. All members of Partners for Jobs worked with this information as well as with other documents and community models to select the interventions considered to be most appropriate, feasible and cost-effective.

In short, the multisectoral groups worked actively with the know-what, know-why and know-how that was available to move these from information to application. The selection of appropriate actions was not straightforward or easy. It involved long and often difficult discussions about the appropriate paths. And while the multisectoral groups played the central role in driving the process, they were aware of the need to check continually with their respective boards and constituencies about the appropriateness of their decisions and to gain broader support. Any community group, even though it may represent or reflect various sectors, cannot work in isolation. It continually must obtain feedback regarding its position.

Sometimes this verification meant going back to the drawing board or at least seeking additional information that was seen relevant to the task at hand. In the case of OP2000, for example, some members of the Leadership Roundtable were interested in determining whether there were definitions of poverty that took into account the availability of assets. This query was based on

the fact that a significant number of the residents in the Region lived on farms; while many had relatively low incomes, they had substantial assets in the form of land and equipment.

A related step in the implementation process was to identify successful models in other communities that could be applied to local challenges. Again, the information gathered was discussed and assessed by the organizing group in order to determine which models potentially would apply. The organizing group also was able to identify the organizations and sectoral representatives that were in the best position to work together to undertake the identified action.

Because of their extensive links to their respective communities, members of the organizing groups from both OP2000 and Partners for Jobs were able to contact and engage those who could carry forward the relevant message or undertake a given task. The multisectoral group itself helped provide the know-who essential for translating the know-what, know-why and know-how into concrete action. The 'know-who' effectively represented a rich body of social capital required for applying the specific types of information with which they were working.

Finally, both projects began to collect information on the effectiveness of their respective interventions and worked with this information to determine whether and how they should change course. The evaluative process was far more formal within the OP2000 initiative, which had set up a special advisory panel to oversee the evaluation process. Despite the diverse approaches to evaluation, both projects were interested in knowing more about the outcomes of their work, their broader impact upon the community and the areas which they potentially could improve.

The lessons from both community projects are clear and significant. Both Opportunities 2000 and Partners for Jobs employed the four major kinds of information that the relevant literature describes. The application of these various forms of information involved an interactive process in which a group of community members representing different sectors was engaged in assessing the data (the know-what), determining its applicability to the problems at hand (the know-why), exploring possible solutions (the know-how) and engaging the appropriate parties in applying the selected solutions (the know-who).

The key to success was the active engagement with the information through a mediating process that entailed the exploration, discussion and implementation of the material. It was a process that involved deliberative and ongoing action and reflection: a true process of learning.

Conclusion

There is remarkable congruence among the diverse fields on the basic nature of knowledge transfer – be it between individuals or members of larger social networks, such as organizations or communities. The message is clear: Direct, collaborative, two-way interaction is critical to the process of learning.

The community examples reinforce the major findings from the literature that emphasize so strongly the importance of a mediating process. This process helps transform information from passive material to active knowledge. It both allows and enables the effective transition from information to application.

From Information to Application: How Communities Learn *Annotated Bibliography*

I. *Perspectives on Learning: Concepts and Theories*

Abbott, John and Terry Ryan. (2001). *The Unfinished Revolution: Learning, Human Behavior, Community, and Political Paradox*. Virginia: Association for Supervision and Curriculum Development.

The Unfinished Revolution is the product of a five-year investigation into the shortcomings of the Western education system. The authors' fundamental view, "one that informs every word in [the] book – is that there should be a constructivist and apprenticeship-based approach to learning that takes full account of recent neuroscientific research" [2001: 2].

For half a decade, Abbott and Ryan engaged in an extensive and painstaking examination of the Western education system, comparing it to recent discoveries in the evolutionary sciences, brain sciences, cognitive science, anthropology, developmental psychology, the biological and social sciences, and economics. The comparison revealed "a massive mismatch" [2001: 3]. As the world's economies evolve, the Western education system, unaffected by market pressures to adapt, remains in a state of virtual stasis, growing increasingly outmoded and increasingly incapable of equipping its charges with the tools necessary to prosper in an environment defined by rapid change.

The goal is to bring education up-to-date and in line with our current understanding of the operations of the human mind, "to develop ways of organizing learning that permit skills to be practiced in the environments in which they will be used (i.e., outside the classroom)" [2001: 17].

As the authors put it: "The human mind is better equipped to gather information about the world by operating within it than by reading about it, hearing lectures on it, or studying abstract models of it" [2001: 17]. In fact, "human memory for isolated facts is very limited. Knowledge is retained only when embedded in some organizing structure... skills and knowledge are not independent of the contexts in which they are used. Instead, they are attuned to, even part of, the environments in which they are practiced" [2001: 17].

In order to better reflect the actual nature of human learning, Abbott and Ryan propose moving from the decontextualized and often stifling environment of the classroom to the open, dynamic environment made possible by cognitive apprenticeship, a system designed to make children "become independent problem solvers capable of understanding their own thinking and learning" [2001: 20]. This is the advantage found in "learning by doing" [2001: 18].

In the past, when apprenticeship was a common method for teaching, "children learned by being shown how, by doing, and then ultimately by taking responsibility for it by themselves" [2001: 18]. Traditional apprenticeship encompassed four stages.

The first stage “involves an older person modeling a subtask, so that the learner sees the significance of this to the final product... this is done while the young apprentice is fully aware of the master’s finished work, and in fact has as the ultimate goal mighty works of her own” [2001: 19].

As the apprentice becomes more competent, new sub-skills are introduced while other ones are perfected. Thus, in this second stage, the learner begins to take personal responsibility for his or her own learning. This increasing competence is bolstered by the master’s supervision, which acts as “scaffolding” [2001: 19] for the apprentice’s growing repertoire of skills.

In the third stage, a process of gradual “fading” [2001: 19] begins as the apprentice becomes increasingly capable and sufficiently competent for independent work. Throughout this process is a fourth element, or stage: that of endless dialogue between master and apprentice [2001: 19].

There are three key differences between traditional apprenticeship and cognitive apprenticeship. First, cognitive apprenticeship is focussed on deliberately bringing thinking to the surface: “the teacher’s thinking must be made visible to the students, and the students’ thinking must be made visible to the teacher” [2001: 20]. This is how the benefits of apprenticeship can be made applicable to mastery of more abstract skills and also how students can learn to understand their own learning in order to become life-long learners.

Second, in traditional apprenticeship, the student sees “how what they are learning is situated in the real world” [2001: 21]. In many of the more abstract subjects taught in schools, this is more difficult, “the challenge is to situate the abstract tasks of the school curriculum in contexts that make sense to the students” [2001: 21].

The third difference is found in the issue of transfer of knowledge: “in traditional apprenticeship it is obvious how the subtask learned transfers over to the broader task. However, it is not obvious to young learners how what they learn in history class, for example, transfers into their understanding of the real world” [2001: 21]. For this reason, Abbott and Ryan emphasize the benefits of internships in order to develop in students a better understanding of the practical applications for their academic skills.

Thus, cognitive apprenticeship opens up the possibility of a more interactive and natural process of learning that, at the same time, can be made applicable to more abstract subjects not suitable for development under a more traditional form of apprenticeship. The result is a system of learning that takes advantage of the natural process of weaning: “over the course of the millennia during which our species developed, this dependence on others was steadily replaced by a growing need to demonstrate that earlier skills had been mastered in such a way that the adolescent became increasingly responsible for his or her own development” [2001: 35]. Thus, “in successful apprenticeship learning there is a continuous underlying theme. The more skills the learner acquires, the more the learner is responsible for learning those skills” [2001: 35].

Abbott, John and Terry Ryan. (1998). *A Policy Paper: The Strategic And Resource Implications of a New Model of Learning*. The 21st Century Learning Initiative. URL www.21learn.org/publ/PP.pdf.

“Tell me and I forget, show me and I remember, let me do and I understand.”
- Chinese Proverb

The central aim of Abbott and Ryan’s *A Policy Paper* is to provide a more concise and policy-oriented rendition of the ideas more broadly discussed in their other, more comprehensive study of education: *The Unfinished Revolution: Learning, Human Behaviour, Community, and Political Paradox*.

According to Abbott and Ryan, education as it is currently conceived in the mainstream has become terribly outmoded and is in desperate need of dramatic restructuring. In order to make their case, the authors have drawn on a wealth of research from a number of fields including the evolutionary sciences, brain sciences, cognitive science, anthropology, developmental psychology, the biological and social sciences, and economics.

The evidence from each of these disciplines is in clear agreement with the authors’ argument that “the Western model of education, in light of the needs of the late 20th century, is largely ‘upside down and inside out’” [1998: 2].

Abbott and Ryan have grouped the findings from these disciplines into five key headings: 1) the biological nature of learning, 2) the science of learning, 3) culture and nurture, 4) the implications of new technologies of information and communication, and 5) spontaneous, informal learning – the significance of home and community.

Evidence from the biological nature of learning holds that “many of our current arrangements for learning are based on misunderstandings about how the brain functions, how learning takes place and how young people naturally mature. It is now clear that every human is born with an inherited set of predispositions to learn key skills and attitudes throughout childhood and adolescence. Current structures of education do not take into consideration many of these predispositions” [1998: 2].

From the science of learning, the authors discovered that “a more effective model of learning would be based on our best understanding about the brain and human development. This would be familiar to what has traditionally been called ‘apprenticeship’” [1998: 2]. Findings from the other three areas emphasize changing needs in the economy that are making current education systems increasingly irrelevant to students’ future success. With respect to the benefits of information technology, Abbott and Ryan are explicit in warning their readers that they are proposing it as a supplement to, not a replacement for, the more important process of learning by doing.

In reality, the human brain is not very well suited to independent and/or decontextualized work; it does not simply ‘absorb’ information, and it is by no means a mere *tabula rasa*.

Time and time again, studies have shown that children and indeed all human beings have an innate “desire to [act] in social, collaborative, problem-solving ways” [1998: 14]. When this rich atmosphere is absent or insufficient, the negative consequences for normal development can be disastrous: “By failing to provide young children with the supportive and nurturing environments in which they can develop their predispositions towards social, collaborative and team-building skills, young children’s brains react with astounding speed and efficiency to the violent world they experience around them by rewiring trillions of brain cells that literally create the chemical pathways for aggression” [1998: 14].

As one of the authors’ sources put it, “all roads lead to Rome.” The cause of many social problems from teen listlessness and apathy, to aggression in young people, can be found in shortcomings in our schools and communities.

This account is based in part on the theory of brain plasticity: “We make our brain as we use it. It’s very shape and the efficiency of its processing is a measure of the way we operate. ... Even a brain at quite an advanced age can learn to do things which at an earlier age were seen to be quite impossible” [1998: 15]. The brain reacts and forms according to inputs from and the demands of the environment that surrounds it. This is an important reason why the current lecture-based curriculum in many schools is insufficient for developing the kinds of skills students will need later in life.

Human beings are more than mere receptacles for information. Learning is an inherently messy and individualized process: “Learning is a collaborative, problem-solving activity that occurs through progressive construction of individual knowledge; information transfer is only a limited part of learning” [1998: 16]. In fact, human beings have only a very limited capacity for remembering isolated facts; they learn by making connections between such facts and their reality. Given this, it is far more important to learn how to learn than to learn any set of specific information.

The best way to learn and the best way to become someone capable of lifelong, adaptive learning is through a process of “cognitive apprenticeship” [1998: 17]. Cognitive apprenticeship involves four stages. The first involves an older person taking the role of a mentor “so that the learner sees the significance of [the subtask] to the final product” [1998: 17]. As this apprenticeship-based learning progresses, new skills are built onto earlier basic skills, and the practice takes “for granted that skills once learnt and subsequently practiced were something that the individual learner would then assume full responsibility for themselves” [1998: 18].

In the second stage, the learner is still in direct contact with his or her mentor, but is beginning to take more and more responsibility for the skills he or she has learned. In the third stage, “that of ‘fading’ of support... the earlier scaffolding was progressively removed. The more proficient the learner became, the more they became independent of the teacher. The fourth, critical stage, is not so much a stage as an element that is to take place throughout the process of cognitive apprenticeship and consists of “endless talking” between apprentice and mentor” [1998: 18].

What cognitive apprenticeship lends to more traditional understandings of apprenticeship is that it “exploits the biological processes involved in weaning... (it allows young people to develop) the ability to think about thinking, to be consciously aware of oneself as a problem solver, and to monitor and control

one's mental processing... it makes thinking visible; it transfers the critic's role from the teacher to the student" [1998: 18]. This is critical if the benefits of apprenticeship are to be applied to learning in more abstract subjects, such as critical thinking and mathematics, that are less focused on the development of practical skills.

This "learning by doing" [1998: 22] flies in the face of current education practice in which students are given bits of decontextualized information in a top-down fashion. In this form, learning becomes experiential and serves to counteract one of the most negative elements of the current education system: "The scandal of education is that every time you teach something, you deprive a child of the pleasure and benefit of discovery" [1998: 22].

Brown, John and Paul Duguid. (2000). *The Social Life of Information*. Boston: Harvard Business School Press.

The central goal of Brown and Duguid's *The Social Life of Information* is to challenge what is quickly becoming the dominant assumption of the information age: that information is synonymous with knowledge.

For the authors, there is something that "*knowledge* catches, but that *information* does not" [2000: 119]. First, "knowledge usually entails a knower... where people treat information as independent and more-or-less self-sufficient, they seem more inclined to associate knowledge with someone" [2000: 119]. Second, "knowledge appears harder to detach than information... it is hard to pick up and hard to transfer" [2000: 120]. Third, "knowledge seems to require more by way of assimilation. Knowledge is something we digest rather than merely hold" [2000: 120].

This leads the authors to assert that "the importance of people as creators and carriers of knowledge is forcing organizations to realize that *knowledge lies less in its databases than in its people*" [2000: 121 emphasis added]. With respect to learning, the implications for organizations that view their members as mere receptacles for the information they seek to transfer are considerable. As Brown and Duguid put it: "Learning a practice... involves becoming a member of a 'community of practice' and thereby understanding its work and its talk from the inside. Learning, from this point of view, is not simply a matter of acquiring information; it requires developing the disposition, demeanor, and outlook of the practitioners" [2000: 126]. Elsewhere they state that: "Learning to be requires more than just information. It requires the ability to engage in the practice in question" [2000: 128]. The apprenticeship-like activity described here "is found not only on the shop floor, but throughout the highest reaches of education and beyond" [2000: 126].

Another key distinction made by Brown and Duguid in their study is that which exists between practice and process: "While process is clearly important to the overall coherence of an organization, in the end it is the practice of the people who work in the organization that brings process to life... organizations, then, should not attend to the process and process-related explanations only. They must also attend to practice...the activity involved in getting work done" [2000: 97].

Many problems are caused by an undue emphasis on process. First, “business process reengineering tends to be somewhat monotheistic. There is not much room for variation in meaning in its camp. The process view is expected to explain all” [2000: 97]. Second, “business process reengineering tends to be relentlessly top down... these two biases of business process reengineering make it hard to see and harder to understand the needs of people whose practices make up processes” [2000: 98]. Third, “the top-down view tends to give a bloodless account of business... opportunities for [personnel] to craft, change, own, or take charge of process in any meaningful way are limited” [2000: 98]. Fourth, “business process reengineers tend to discourage exactly the sort of lateral links that people pursue to help make meaning” [2000: 98].

In many cases, business process reengineering can be so shortsighted and misdirected that personnel are forced to battle the system designed to make their jobs easier in order to get any work done at all. This is what Brown and Duguid refer to as organizations and their personnel “remaining effective despite the best efforts of management” [2000: 101].

Often, process designs that look perfectly clear to the management teams that designed them are “much more opaque and confusing on the ground” [2000: 100]. In one case study, by Julian Orr, the activities of Xerox copier repair representatives were observed. What Orr discovered was that the painstakingly devised repair instructions and work procedures were of little use to Xerox’s troops on the ground: “Directive documentation... wasn’t designed for sense making. It was designed for rule following” [2000: 102]. In fact, “the information and training provided to the reps was inadequate for all but the most routine tasks they faced” [2000: 100].

Instead of adhering to management’s plans, which would have had the reps working independently and in communication with only the main office for support and with only the help of their often inscrutable repair manuals (which told them what to do, but not why), the reps banded together to form collaborative teams: “Orr found, when the reps fell off the map of process, they went to breakfast” [2000: 102]. The result of these ostensibly casual and non value-adding meetings, however, was instrumental to remaining effective despite the difficulties imposed on them by management: “They posed questions, raised problems, offered solutions, constructed answers, and discussed changes in their work, the machines, or customer relations. In this way, both directly and indirectly, they kept one another up to date with what they knew, what they learned, and what they did” [2000: 102].

The importance of this type of chat between employees is critical for the smooth operation of any organization, “chat continuously and almost imperceptibly adjusts a group’s collective knowledge and individual members’ awareness of each other” [2000: 103]. This form of shared knowledge “differs significantly from a collective pool of discrete parts... where one person’s knowledge ends and another’s begins is not always clear” [2000: 106].

Most solutions to problems arrived at by the reps were not the result of a specific piece of knowledge held by a single rep; rather, they were the result of a collaborative process “that created an indivisible product. Thus we tend to think of knowledge less like an assembly of discrete parts and more like a watercolor painting. As each new color is added, it blends with the others to produce the final effect, in which the contributing parts become indivisible” [2000: 106].

The constant narration and story telling that forms the basis of the reps' interactions are "central to learning and education... they allowed the reps to learn from one another" [2000: 107].

The key problem is that the expertise developed by the reps through their mutual collaboration and interdependence is very difficult to duplicate or to engineer. As Brown and Duguid note: "Circulating human knowledge, these experiences suggest, is not simply a matter of search and retrieval, as some views of knowledge management might have us believe. While knowledge is often not all that hard to search, it can be difficult to retrieve, if by *retrieve* people mean detach from one knower and attach to another" [2000: 124].

Another case study [2000: 131-133] helps to shed light on a feasible means of transferring knowledge that reflects Brown and Duguid's emphasis on apprenticeship. In this case, management decided to "streamline" the operations of one of their photocopier repair call centers. In the call center, operators would answer technical questions from clients and, if possible, would guide them through the problem to a solution. If the problem could not be fixed over the phone, the operator would send a technician to remedy the situation.

In the past, the operators had learned from one another and from the technicians, who were dispatched to fix the customer's machinery. The technicians acted as mentors to the operators, who consequently learned a great deal more about the machinery. The result was that more problems could be solved over the phone. This, in turn, gave the technicians more time to deal with serious machinery failures while the operators coached customers through more mundane difficulties. When management decided to alter the system, productivity declined. A change in communications technology removed the technicians from the call center. This brought an end to the operators' informal training and mentoring program.

Next, the company decided to implement a "case-based expert system" [2000: 131] designed to take the pressure for decision-making off of the operators. This system "prompts operators to ask the customer a number of questions. The operator types the responses into the system, which then searches for a ready solution" [2000: 132]. The problem was that the operators found this form of directive documentation very tricky: "It can be surprisingly difficult to get a clear diagnosis and solution this way" [2000: 132]. Furthermore, the system had a negative impact on consumer confidence for "such a system doesn't help the operators understand what they are doing. ... It's hard to put faith in people who are obviously reading instructions off a screen" [2000: 132].

In the end, the changes resulted in a dramatic drop in operator competence and in consumer confidence, which led directly to more requests for technicians for even the most mundane problems. The company was about to implement a new schedule of intensive training in the software to remedy the situation until one of the researchers sent to identify and fix the call center's problem made a startling discovery: They found two operators who gave especially reliable answers. One, unsurprisingly, was an eight-year veteran of the service center with some college experience and a survivor from the days when reps served as mentors. The other, however, was someone with only a high-school diploma. She had been on the job barely four months. The researchers noticed, however, that the newcomer had a desk opposite the veteran. There she could hear the veteran taking calls, asking questions and giving advice. And she began to do the same. She

also had noticed that he had acquired a variety of pamphlets and manuals, so she began to build up her own stock. Moreover, when she didn't understand the answers the veteran gave, she asked him to show her what he meant, using the service center's own copier [2000: 132].

The result was predictable: Management sheepishly returned to the older and clearly more efficient procedures. The research team concluded: "Given the amount and level of knowledge already available in the room, what the operators needed were not so much expert systems or new training courses, but 'longer phone cords'" [2000: 133]. This leads Brown and Duguid to reemphasize that "for the sort of implicit communication, negotiation, and collective improvisation that we have described as part of practice, learning, and knowledge sharing, it's clear that there are advantages to working together, however well people may be connected by technology. Indeed, one of the most powerful uses of information technology seems to be to support people who do work together directly and to allow them to schedule efficient face-to-face encounters" [2000: 146].

Coleman, James S. (1988). "Social Capital in the Creation of Human Capital." *American Journal of Sociology*. Vol. 94 (Supplement): 95-120.

Through the marriage of sociological and economic methodology, James Coleman provides an account of the concept of social capital and its role in facilitating the spread of human capital (knowledge) among members of an organization.

Coleman's analysis begins with a discussion of the concept of social capital, which he sees as an effective tool in the reconciliation of sociological and economic methodologies. For Coleman, social capital is "defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within the structure... social capital inheres in the structure of relations between actors and among actors" [1988: 98].

Coleman develops his definition of social capital by distinguishing it from other forms of capital, such as physical capital which is "embodied in tools, machines, and other productive equipment" [1988: 100] and human capital, which is created "by changes in persons that bring about skills and capabilities that make them able to act in new ways." As Coleman points out: "Human capital is less tangible [than physical capital], being embodied in the skills and knowledge acquired by an individual, [and] social capital is less tangible yet, for it exists in the *relations* among persons" [1988: 100]. As discussed later, the existence of social capital within a given organization (such as the family) is of great importance for the dissemination of human capital (knowledge) between members of a community.

With respect to the strength of relations among individuals in a community, Coleman argues that social capital "depends on two elements: trustworthiness of the social environment, which means that obligations [among members of the community] will be repaid, and the actual extent of obligations held" [1988: 102]. Where trustworthiness contributes to an effective sanction against dissenters within a given commu-

nity, the extent of obligations held among the community strengthens bonds between members while also creating an intrinsic incentive structure within the community for increased collaboration. Thus, the level of cohesiveness and collaboration within a given community is dependent on the level of organization within that community: “One could not imagine a rotating-credit association operating successfully in urban areas marked by a high degree of social disorganization – or, in other words, by a lack of social capital” [1988: 103].

Key to understanding the concept of social capital and its role in diffusing human capital throughout a given community is the presence of what Coleman calls “information channels” [1988: 104]. This is information “that inheres in social relations” [1988: 104]. Information (or knowledge) possessed by one member of a community is available to other members of that community in proportion to the amount of social capital they share. For members of such a community, this has the effect of reducing the overall cost of obtaining similar information or knowledge from outsiders. Moreover, individuals in a community tend to trust one another more than outsiders and will be more likely to accept and assimilate information that comes from members of their own community. In Coleman’s example: “A social scientist who is interested in being up-to-date on research in related fields can make use of everyday interactions with colleagues to do so, but only in a university in which most colleagues keep up-to-date” [1988: 104].

For Coleman, shared norms are also of great importance to the creation and maintenance of such collaborative communities: “Effective norms can constitute a powerful form of social capital” [1988: 105]. Such norms provide guidelines for action and sanctions against dissenters within a given community, thereby increasing the likelihood of community cohesiveness and increased collaboration.

These norms are greatly enhanced by what Coleman calls *closure*, which “imposes external effects [sanctions] on others [other members of the community]” [1988: 105]. In a community with closure, the will of members can be brought against dissenters as an effective sanction against continued unwanted behaviour. Conversely, without closure, this kind of community policing of individual member activity is much more difficult to develop. In a school setting, for example, parents will have a much less difficult time monitoring and guiding the behaviour of their children if they are acquainted with the parents of their children’s friends than if they are not. As Coleman puts it: “The consequence of closure is... a set of effective sanctions that can monitor and guide behaviour” [1988: 107].

An added bonus enjoyed by organizations with closure comes through what Coleman calls “appropriate social organization” [1988: 108]. An organization developed to suit one purpose (such as the PTA) can, through its connections, contribute to a number of other goals (such as the opportunity to collaborate in order to more effectively sanction their children’s behaviour). As Coleman notes: “An organization that was initiated for one purpose is available for appropriation for other purposes” [1988: 108].

From these points, Coleman develops his theory of how social capital can be used to create human capital. In the case of the family, social capital’s role in creating cohesion between members of a group is instrumental in creating human capital in the next generation [1988: 109]. The presence of social capital within the family is critical to the intellectual development of children within that family, but its mere presence does not ensure transfer of human capital between generations.

As Coleman cautions: “This human capital [possessed by parents] may be irrelevant to outcomes for children if parents are not an important part of their children’s lives” [1988: 110]. For this reason, direct relationships between parents and children are of great importance if human capital is to be transferred effectively between generations. As Coleman states: “Social capital within the family that gives the child access to the adults’ human capital depends both on the *physical presence* of adults in the family and on the *attention given* by the adults to the child” [1988: 111, emphasis added). This serves to re-emphasize the importance of closure and closeness between members of a family should human capital be transferred effectively from parents to children. While closure helps to create a common set of norms and sanctions against unwanted activity, closeness (as exhibited in direct contact) enhances collaboration between family members leading to enhanced transfer of human capital between generations.

Centre for Educational Research and Innovation. (2000). “Understanding the Role of Education in the Learning Economy: The Contribution of Economics.” In *Knowledge Management in the Learning Society*. Paris: Organization for Economic Co-operation and Development.

The aim of this chapter from *Knowledge Management in the Learning Society* is to address current challenges to the education system through an interdisciplinary lens. A key element of the chapter is an inquiry into the nature of knowledge and the problems surrounding its transfer, “our knowledge of how knowledge is created, transferred and used remains partial, superficial and partitioned in various scientific disciplines” [2000: 11]. Despite their differences, many of the questions surrounding our concept of knowledge hinge on the issue of its transferability.

In order to better understand the concept of knowledge, the authors begin by reclassifying it into the four categories developed by social scientists Lundvall and Johnson. The four types of knowledge are know-what, know-why, know-how and know-who.

Know-what “refers to knowledge about ‘facts.’ Here, knowledge is close to what is normally called information – it can be broken down into bits and communicated as data” [2000: 14].

Know-why denotes knowledge “about principles and laws of motion in nature, in the human mind and in society. Access to this kind of knowledge will often make advances in technology more rapid and reduce the frequency of errors in procedures involving trial and error” [2000: 14].

Know-how “refers to skills – i.e., the ability to do something... one of the most interesting and profound analyses of the role and formation of know-how is actually about scientists’ need for skill formation and personal knowledge. Even finding the solution to complex mathematical problems is based on intuition and on skills related to pattern recognition which are rooted in experience-based learning rather than on the mechanical carrying out of a series of distinct logical operations” [2000: 15]. Furthermore, know-how is “typically a kind of knowledge developed and kept within the borders of an individual firm or the single research team... One of the most important reasons for industrial networks is the need for firms to be able to share and combine the elements of know-how” [2000: 15].

The nature of know-how makes *know-who* increasingly important: the general trend towards a more composite knowledge base, with new products typically combining many technologies, each of which is rooted in several different scientific disciplines, makes access to many different sources of knowledge more essential. Know-who involves information about who knows what and who knows what to do. But it also involves the social ability to co-operate and communicate with different kinds of people and experts” [2000: 15].

As the OECD report states – with considerable relevance to the transferability of each of these categories of knowledge – “the public or private character of these kinds of knowledge differs in both degree and form” [2000: 15]. For example, databases are quite useful in transferring “know-what” while “the most effective medium for obtaining pertinent facts may be through the ‘know-who’ channel, i.e., contacting an outstanding expert in the field to obtain directions on where to look for a specific piece of information” [2000: 15].

Scientific work, on the other hand, “aims at producing theoretical models of the *know-why* type” [2000: 16]. Unfortunately, the assumption that Internet access would enhance this transferability is not well founded, for even if the information were more readily available, “it often takes enormous investments in learning before the information has any meaning” to those outside the field. Once again, “know-who, directed towards academia, can help the amateur obtain a ‘translation’ into something more generally comprehensible” [2000: 16].

Know-how, according to the report, “is the kind of knowledge with the most limited public access and for which mediation is the most complex. The basic problem is the difficulty of separating the competence to act from the person or organization that acts. ... Attempts to use information technology to develop expert systems show that it is difficult and costly to transform expert skills into information that can be used by others” [2000:16].

The consequence of this is that know-how “is never a completely public good and that firms get access to it only by hiring experts or merging with companies with the knowledge they want” [2000: 16].

Another important distinction is that which exists between coded and tacit knowledge: “Tacit knowledge is knowledge that has not been documented and made explicit by the one who uses and controls it... it is necessary to distinguish between tacit knowledge that can be made explicit (tacit for lack of incentives) and knowledge that cannot be made explicit (tacit by nature)” [2000: 18-19].

Each of the categories of knowledge experience this transfer from tacit to coded differently, and with different degrees of difficulty: “Skills embodied in persons and competencies embodied in organizations can only be documented to a certain degree. There are ‘natural’ limits to how far it is possible to make ‘know-how’ explicit; only approximations are possible. This is less true for knowledge about the state of the world. Know-what can be entered into databases and know-why can be made explicit in theorems” [2000: 19].

As we know, the problem with knowledge creation in innovation is found in the difficulties inherent in transferring it to application: While the interactive learning of innovation allows “those involved to

increase their competence while engaging in the innovation process” those who are to adopt the new innovations do not enjoy the same benefit. The problem is that this “learning by doing,” “learning by interacting,” and “learning by using,” are available only to those responsible for the innovation process [2000: 23].

This has led to an increased focus on “learning organizations... the basic idea is that the way an organization is structured and the routines followed in it will have a major effect on the rate of learning that takes place” [2000: 24]. Decentralization is key to the process of becoming a learning organization for “the accelerating rate of change makes multi-level hierarchies and strict borders between functions inefficient. ... [There is also] a growing emphasis on making employees and teams of employees more aware of the fact that they are engaged in learning... the crucial element is reflecting on what has been learnt and how to design the learning process” [2000: 24].

One way to better ensure successful knowledge transfer “is to engage in a process of interactive learning with the carrier of the knowledge, [another way] is to hire experts as employees or take over the organization controlling the knowledge” [2000: 26].

Another problem is that “the production and use of highly specialized codes [in knowledge codification] or codes using technical or local jargon would create an obstacle to appropriation of the field by lay people and potential users of the knowledge. On the other hand, a lack of codification also would create an obstacle as users would not have access to sufficiently explicit knowledge. This ambivalence indicates the importance of designing and implementing meta-codes or semi-codes as mechanisms for developing compromises between the need to make knowledge more explicit and the need to avoid excessive technicalities and local jargons” [2000: 27].

Centre for Educational Research and Innovation. (2000). “The Production, Mediation and Use of Knowledge in Different Sectors.” In *Knowledge Management in the Learning Society*. Paris: Organization for Economic Co-operation and Development.

The aim of this chapter from *Knowledge Management in the Learning Society* is to consider “how education can fit into the wider knowledge business, by learning new ways of meeting the demand for new kinds of competency and examining how in general terms and in specific sectors knowledge is produced, mediated and used, from which educationists may gain insights” [2000: 37].

Drawing on information about knowledge transfer in engineering, health and information and communication technology, the authors hope to arrive at a more comprehensive understanding of the nature of knowledge transfer and the challenges inherent in such an undertaking.

In the analysis, the authors introduce, critique and compare a number of models for information transfer. The first is the linear model, which is most commonly found in a top-down organizational structure: First, “there is the production or creation of knowledge; this is followed by its mediation (dissemination, transfer) from its source to recipients; and finally the knowledge is then used or applied” [2000: 39].

There are two main problems with the linear model. The first is that despite its apparent simplicity, the linear model relies heavily on a “complex sequence embracing at least seven complex processes, in each of which a variety of factors can cause the model to fail” [2000: 39-40]. These seven processes are:

1. Production: “the circumstances under which individuals, groups or organizations successfully generate new knowledge and practices are still only partially understood.”
2. Validation: “knowledge, once created, has to be shown to be valid by some criterion.” How new knowledge is validated depends on the industry to which it belongs or from which it stems.
3. Collation: “within an area, a corpus of knowledge of what is known has to be collated and set out in a codified form. In different sectors, the obstacles to collation may vary, as may techniques for removing such obstacles.”
4. Dissemination: knowledge can be diffused outward from the source of innovation by numerous means, including the media, courses provided for professionals and through personal contact with the mediator. Each of these carries with it an inherent and distinct “potential to distort the new knowledge or obstruct its communication.”
5. Adoption: put basically, there needs to be “a reason or incentive why a profession or organization should be willing to adopt disseminated knowledge or practices, since more often than not adoption means giving up an existing practice.”
6. Implementation: some of the most common barriers to implementation include “lack of opportunity to implement; practical problems and constraints; and lack of social support to sustain commitment.”
7. Institutionalization: “Perhaps the most complex process, for it involves the knowledge or practices moving from being an innovation to becoming a sustained, routine practice that is accepted as ‘normal.’ An innovation is not institutionalized until it endures beyond the time/presence of those who originally adopted it.”

The second major problem facing the linear model is that these seven processes “tend to be seen as stages; in fact, “the three basic processes [production, mediation, application] can influence one another and different actors contribute to these interactions at various points in time... [due to this] non-linear models have become important” [2000: 41]. In viewing the seven processes as stages, we forget the importance of interconnectedness and two-way relationships to the dissemination and adoption (general mediation) of new knowledge.

Given these problems, new models of knowledge transfer tend to be *interactive* rather than linear, they involve a much closer, collaborative relationship and numerous feedback channels between each of the three nodes (production, mediation and application). While this is more in line with how knowledge is naturally transferred, it also helps to quell the natural shortcomings and troublesome ‘breakdowns’ during the seven stages of the linear transfer model.

Next, the authors compare this archetype for knowledge transfer to the actual workings of education, engineering and medicine.

In terms of the education sector, the authors found that it is “undeniable that the knowledge-base of teachers is very unlike that of either engineers or doctors and nurses, in that there is neither a corpus of scientific knowledge to underpin it nor a body of research evidence about ‘what works’ to inform it” [2000: 44]. While teachers are increasingly subject to reforms, retraining and other policies deemed necessary to bring their skills and knowledge base up to speed with current demands, “it is unclear how far these transform shared knowledge into changed practice” [2000: 45]. In order to get a better idea of why this sector is failing to keep up to date, the authors looked at the other three sectors for guidance.

Given the rate of innovation in the health sector, it is impossible for any one practitioner to stay informed about all of the developments that take place, hence the enormous diversity of specialization within the field. In the medical field, “the dissemination of practical know-how continues to rely heavily on personal contact, for surgical techniques, like the art of cooking, are not adequately disseminated by recipe books alone: observing a demonstration, assisting and working alongside the experienced practitioner are ways to achieve practical know-how that go beyond any written account of the formal knowledge involved” [2000: 49].

This form of learning by doing has become a staple of the medical education program, as “academic pre-clinical education and clinical training are increasingly structured in concurrent rather than consecutive chunks, and the teaching is problem-oriented rather than didactic in style... these approaches help to bridge the gap between ‘theory’ and ‘practice’” [2000: 49].

In the engineering sector, “it is vital to uncover how new ideas and knowledge are produced and then translated into the design for new goods or services... [this] opens up two key issues: the relationship between universities and industrial firms in the development of innovation and the role of each in the education and training of engineers.” In the engineering sector, the classic linear model, where universities innovate and firms duplicate, sometimes works but often does not... the linear model is a simplistic and misleading account of practice” [2000: 51].

Thus, the engineering sector has tended toward the adoption of a range of “*interactive models* which reflect complicated forms of negotiation and processes of learning embedded in interactions between the domains of science and technology, interactions between organizations, interactions between people, and interactions between kinds of knowledge” [2000: 52].

According to the authors: “Knowledge-intensive firms [such as those found in the information and communications technology sector] may provide general insights into, or even practical lessons for, other knowledge-intensive organizations” [2000: 58]. Among the characteristics of these successful companies are several that the authors believe could be helpful if adopted by other organizations seeking to streamline the transfer of knowledge.

These characteristics include a tendency to embrace change and the ability to balance rapid change with continuity; a “constant and explicitly maintained tension between liberty and control, freedom and

responsibility”; the creation of an atmosphere marked by social cohesion and interaction between employees which speeds innovation and the transfer of ideas; the tendency to bring people from different departments together to collaborate on new projects; hierarchies and systems of status are de-emphasized while teamwork and collaboration “between members of different experience and training are encouraged. Expertise, insight and creativity are more important than seniority: it is local knowledge that counts; team membership tends to change often” [2000: 58].

Centre for Educational Research and Innovation. (2000). “Lessons for Education: Creating a Learning System.” In *Knowledge Management in the Learning Society*. Paris: Organization for Economic Co-operation and Development.

This chapter of *Knowledge Management in the Learning Society* is designed to bring the discoveries of earlier chapters into focus in terms of their relevance to the current education system. In effect, it is an attempt to answer the question: Given what we now know about knowledge, learning and knowledge transfer, how can we put this to use in order to improve the current education system?

In their analysis of knowledge transfer in the fields of medicine, education, engineering and information and communications technology, the authors discovered that education was by far the least efficient and least likely to put new ideas into practice.

One of the key problems is that “teachers possess relatively little in terms of a common body of codified, explicit knowledge to underpin their work and they tend to work in a very individualized setting.” Thus, “teacher’s professional knowledge is personal rather than collective, and more tacit than explicit... it is mostly locked in the heads of individual teachers” [2000: 71].

The challenge, then, is to get this information out of teachers’ heads and into a more collaborative atmosphere where teachers can work together in order to improve their skills and the system of education in general: “Practitioners in education could, as in medicine and engineering, play a much more active role in knowledge creation” [2000: 73].

The first move proposed by the OECD is for teachers to begin to think of themselves not as solitary workers but as members of an interdependent group of co-workers: “There needs to be a psychological transition from working and learning alone... to a radically different self-conception which, in conformity with interactive models, sees the co-production of knowledge with colleagues as a natural part of a teacher’s professional work” [2000: 74].

According to the OECD, educators should attempt to adopt the characteristics of knowledge-intensive firms discussed in a previous chapter in order to bring this process to fruition. This is a threefold task. First, there is a need to find “new ways of making teachers more aware of their existing internal and external networks; secondly, to help them to recognize the potential value of strengthening those networks; and thirdly, to learn how teachers might deploy such networks in the interests of professional knowledge creation, dissemination and use” [2000: 75].

This means that the daily gossip and ‘talk’ that takes place between teachers must be enhanced by encouraging them to realize the importance of each other’s input to their performance as educators. The transfer of information involves more more than simply telling: “Transfer occurs only when the knowledge of the first teacher becomes information for the second, who then works on that information in such a way that it becomes part of his or her context of meaning and purpose, is integrated into pre-existing knowledge and is then applied in action” [2000: 75].

The actual process of practical knowledge transfer helps to explain why “so much dissemination fails, for dissemination makes the information more widely available, but does not provide the support which allows the receiver of the information to convert it into personal knowledge that can be successfully applied. Conversion of *abstract information* into *applicable know-how* is the very essence of transfer and it is most easily achieved when a teacher tinkers with new knowledge and tests it and, where necessary, modifies it to fit a different context and, on finding that it works, adopts it” [2000: 75-76]. This is why the most successful, useful and efficient form of knowledge transfer is interpersonal [2000: 76].

Information and communication technology can be used to enhance teacher’s collaborative capabilities, but such an enterprise comes with its own problems. While these forms of communication make the sharing of explicit knowledge easier, it “can easily become de-contextualized and thus difficult to transfer/transpose and replicate, especially where there is considerable tacit knowledge involved, which really requires people to meet and tinker to achieve transfer” [2000: 79].

The success story of Silicon Valley [2000: 80-81] often is cited as an example of the benefits of close interpersonal relationships to the spread of knowledge. Even in the high-tech sector, where companies have the expertise to manage and access some of the most advanced forms of communication technologies, high-tech companies tend to cluster together in close physical proximity to one another. This is testament to the fact that information and communication technology can best be employed as a supplement to interpersonal relationships rather than a replacement for them.

In order to bring about real change in the education system and in the way teachers gain and employ knowledge, the OECD proposes to bring educational researchers and teachers “into a much tighter partnership” [2000: 82]. This would entail:

- Training and supporting teachers in research skills, including knowledge validation, to enable them to carry out more school-based research for knowledge creation.
- Interpreting their partnership with teachers less often as occasions for transmitting academic research knowledge to them and more often as opportunities to contribute to the integration and combination of different kinds of knowledge as an important ingredient of teacher-led knowledge creation.
- Coordinating dispersed, school-based research and development programs, from small-scale, preliminary knowledge creation in a consortium of two or three schools to large-scale, multi-site experiments, in order to create bodies of cumulative knowledge about effective pedagogic practices.

- Helping to disseminate the outcomes through networks of schools and teachers.
- Making the study of the creation, dissemination and validation of knowledge in education a focus of university-led research [2000: 82].

In addition to these specific policy recommendations, the chapter includes a section that mirrors findings about the role of social capital in the learning process: “Recent studies indicate that... high levels of social capital in companies are associated with high levels of performance and successful innovation... the structural and cultural aspects of social capital are clearly linked, in that social connections and networks are, at a common sense level, likely to be associated with relationships of trust. Trust encourages cooperation, which strengthens the social connections involved. Within such relationships, there is likely to be a sharing and exchange of knowledge capital” [2000: 87].

Finally, the authors present some proposals for the most effective design of an infrastructure to support knowledge management [2000: 88-89]. At the national level, the infrastructure should consist of:

- Information and Communication Technology (ICT) networks linking educational organizations to one another and to their partners.
- A system for training the leaders, managers and senior staff of educational organizations in knowledge management.
- The provision of resources to support knowledge management.
- Delegation to the regions of powers and responsibilities for supporting networks and encouraging knowledge management.
- Establishing forums to provide strategies and guidance for educational research and development and research foresight exercises.

At the regional and local levels:

- Providing local networks and intranets, with active support for them in the form of facilitators and coordinators.
- Mechanisms for coordinating knowledge management, research and development and continuing professional development.
- Acting as a broker for new partnerships between schools and universities and between schools and companies with experience of, and skill in, knowledge management, with particular attention to creating an appropriate culture.
- Arranging local forums for debate and exchange.

- Identifying and disseminating best practice in knowledge management in educational organizations.

de Soto, Hernando. (2000). *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Perseus Books.

Hernando de Soto's *The Mystery of Capital* is a study with a mission: to debunk the many myths that seek to explain the economic stagnancy of the Third World by presenting a more coherent and compelling account of the origins of and reasons for economic prosperity in the Western world.

Why has the West enjoyed such economic prosperity while the “rest” have encountered so many difficulties? The answer, according to de Soto, is relatively simple. The economic prosperity of the West, unlike the rest of the world, is built on a strikingly rich history of laws dating as far back as Magna Carta. The underlying customs and norms of the Western legal tradition can be traced even further back in history to Roman law, and even as far back as the elemental Code of Hammurabi.

The West's rich history of legal traditions and norms, much of which is centered around the protection and transfer of property, creates a system whereby individuals in Western society are able to use their personal property as leverage for future economic endeavors.

As de Soto states: “The reason capitalism has triumphed in the West and sputtered in the rest of the world is because most of the assets in Western nations have been integrated into one formal representation system. ... [I]n Western countries, where property information is standardized and universally available, what owners can do with their assets benefits from the collective imagination of a larger network of people” [2000: 52-53].

In effect, and unlike non-Western nations, citizens of Western countries do not have to be personally acquainted with their business partners in order to have sufficient assurance that their actions will be honorable: The Western system of laws and customs for property management and protection serve as a proxy for the direct, personal associations on which non-Western property systems are based.

For de Soto, the clues to the West's success have always been present, clearly accounted for in the theories of the classical Western economists. Adam Smith, for example, developed the theory that “for accumulated assets to become active capital and put additional production in motion, they must be *fixed and realized in some particular subject* ‘which lasts for some time at least after that labour is past’” [2000: 42]. This leads de Soto to argue that “capital is not the accumulated stock of assets but the *potential* it holds to deploy new production” [2000: 42]. Without such potential, capital becomes of little use to further economic expansion: This is the plight of the Third World, the plight of dead capital. The key to the West's economic success, according to de Soto, is that its laws and customs for the protection and transfer of personal property have created a system where the “potential energy in assets” [2000: 44] can be put to almost any use.

For example, de Soto discusses the deed to a house: “A formal property representation such as a title is not a reproduction *of* the house, like a photograph, but a representation of our concepts *about* the house... it represents the non-visible qualities that have potential for producing value. These are not physical qualities of the house itself but rather economically and socially meaningful qualities we humans have attributed to the house” [2000: 50].

What this formal property system did was connect the hundreds of millions of ‘strangers’ making up Western society through legal means: “Once inside a formal property system, owners lost their anonymity. By becoming inextricably linked to real estate and businesses that could easily be identified and located, people forfeited the ability to lose themselves in the masses. This anonymity has practically disappeared in the West, while individual accountability has been reinforced” [2000: 55].

The key is that any Western citizen can engage in a business relationship with any other Western citizen, knowing full well the value of their property and its relative purchasing power. Furthermore, they have the additional confidence in knowing, should they choose to purchase property from their business associate, that the proposed transfer of ownership (and of inherent property value) will be legally sanctioned and recognized by everyone else in the system.

In the developing world, it can often take several hundred steps, thousands of dollars, and years of paperwork between local and federal authorities to register a single, utterly mundane piece of property, let alone a business or a corporation [2000: 18-28]. In the municipality of Lima, for example, there are a staggering 728 individual bureaucratic steps necessary to obtain legal title to a home in a validated housing settlement [2000: 192]. This can literally take decades and thousands of dollars in processing and other fees. The result is that few can afford or bother to register their land.

What the Western world takes for granted as readily available is more than hard to come by for the majority of the world’s peoples. Instead, they must rely on extra-legal means for their business dealings, often forming smaller, self-policing business organizations in order to duplicate, on a smaller scale, the reliability of the Western legal system.

The reality for citizens of the Third World is that even if they have built their homes with their own two hands, or have building upon building of apartments available for rent to others, it is extremely difficult for them to register this property with the proper authorities. Often, the necessary authorities simply do not exist, at least not in the way they do in the West. If a house does not exist in the official, legal sphere of capital, it cannot be used as capital.

The problem is that no matter how much property a citizen of the developing world holds, it can rarely, if ever, be used to leverage future economic endeavors outside of a relatively small, extra-legal community. Capital of this kind is “dead capital.”

What de Soto and his team discovered is that, contrary to popular belief, the developing world commands an incredible amount of raw capital: a staggering sum of \$9.3 trillion USD [2000: 35]. What they also discovered is that the vast majority of it is unable to be used: Because it is not officially recognized in a

transparent and accessible property representation system such as that which exists in Western nations, it cannot be employed to create new capital.

The problem, put simply, is that in non-Western nations, “most people cannot participate in an expanded market because they do not have access to a legal property rights system that represents their assets in a manner that makes them widely transferable and fungible, that allows them to be encumbered and permits their owners to be held accountable. So long as the assets of the majority are not properly documented and tracked by a property bureaucracy, they are invisible and sterile in the marketplace” [2000: 211].

For de Soto, the only solution is to teach others how the West has developed its economic system by “implementing a property system that creates capital. ... [This] is a political challenge because it involves getting in touch with people, grasping the social contract, and overhauling the legal system” [2000: 227].

II. *Community Building: Principles and Practices*

Banff Centre for Management. *Public Programs, Community Leadership, Competency Maps.*
URL www.banffmanagement.com/comm_lead.asp.

This website focusses on programs for developing leadership competencies offered at the Banff Centre for Management.

Among the core competencies identified by program materials are:

- effectively leads strategic planning processes
- attains buy-in of key stakeholders to new directions
- adapts approach and style successfully to different leadership demands of downsizing, turnaround and restructuring
- stimulates and supports creativity and innovation in others
- utilizes re-engineering and continuous improvement of processes appropriately
- ensures that employees clearly understand their value to the business, customers and organizational processes
- plans, monitors and achieves financial objectives
- coaches and shapes performance of individuals for continuous improvement
- use of communication approaches that are effective and appropriate
- is creative and innovative and to support the process in others
- has effective team building and motivating ability
- ability to ‘walk the talk!’

A course on local government leadership allows development of the following competencies:

- political process
- organization planning
- community process
- decision making
- performance management
- management systems
- human resources

Berkowitz, Bill and Eric Wadud. (nd). “Identifying Community Assets.” *Community Tool Box.*
URL ctb.lsi.ukans.edu/.

This educational document leads the reader through the process of defining and identifying community assets, always with a view towards the purpose and use of such information. Assets include people, physical structures or places and businesses. Before the task of identification begins, the paper recommends an

assessment of the community's size, how many people are available to do the work, how much time the project is given and what kinds of financial resources it can harness.

Sources of information are listed, and suggestions are made for mapping compiling information on individual and community assets are presented. Specific suggestions for identifying individual assets are given and possible uses for asset information are presented.

Canadian Broadcasting Corporation. (1994). "Community and its Counterfeits – Part one of a three-part series." Toronto: CBC RadioWorks.

This radio program transcript outlines the community development ideas of John McKnight, then program director of community studies at Northwestern University in Chicago. The first in a series of three interviews, McKnight discusses his notion of community as the space where citizens, not institutions, prevail.

Reflecting on the writings of Alexis de Tocqueville, the French social philosopher who visited America in the 1800s, McKnight points out that early American society was directed by communities – small groups of self-appointed common men and women who came together “and took three powers: the power to decide there was a problem, the power to decide how to solve the problem – that is the expert's power – and then the power to solve the problem” [1994: 3].

From this understanding, McKnight presents the view that modern society has created a growth industry in the area of social programming which replaces genuine community and its three powers with an ever-expanding menu of social programs. Citing the evolution of bereavement counsellors and their replacement of traditional grieving practices as an example, McKnight draws the conclusion that the new human services economy can grow only if problems proliferate.

Where doctors have long appreciated that there are costs associated with the benefits of treatment, McKnight argues that four universal and inevitable costs arise from human service interventions: “People will become known by their deficiencies, not their gifts; money will tend to be put at the discretion of those offering service, rather than those defined as ‘in need’; active citizenship will retreat in the face of professional expertise; and services will aggregate to form total environments” [1994: 5].

Replacing family, the function of which McKnight believes to be the place where “love grows on the basis of people who have worked together, who have suffered together” [1994: 6], reliance on social services removes the responsibility of care from the individual.

Arguing that society currently sees every human deficiency as fixable, McKnight concludes that rather than becoming further enmeshed in creating larger and more tyrannical institutions, we need to see people in light of the gifts they each have to offer. When we give up the desire to be gods that will fix everything, he says, “That's when life will come alive and communities will grow: When we see the wonderful possibilities of failing to be God” [1994: 8].

Community Building Resources (CBR). URL www.cbr-aimhigh.com.

This private consulting firm helps community organizers to develop community programming by focusing on assets. It promotes a philosophy of Asset-based Community Building (ABCB) and Asset-based Community Development (ABCD) that helps groups discover and link talents, gifts and assets and map a path toward the future.

Community Building Resources has worked with rural and urban neighbourhoods, health groups, children's services, small businesses, nonprofit groups, youth, schools and corporations. It runs workshops tailored for each group which includes the Asset-based Community Building focus. Many resources are available on-line, including:

- workshops and facilitation services
- research and evaluation
- presentations and keynotes
- resources and references

Materials on the website describe a six-step asset-building process:

1. *Define the Question and the Focus*

- participate in a Community Capacity Building & Asset Mapping© workshop
- bring together a group to learn, to discuss and to create a plan
- communicate

2. *Initiate*

- establish key community contacts
- refine questions
- develop community partnerships, networks and links/working groups
- complete a community "walkabout" and gather community profile information
- make use of existing research resources (i.e., key print and technological resources with the community)
- confirm geographic boundaries (if appropriate)
- develop a short paper description of the Community Building process
- inform community members via their newsletter, the media and by attending community gatherings/meetings
- develop goals and objectives

3. *Planning For Community Conversations (Design Questionnaire and Database)*

- design questions to ask individuals, business/associations or groups
- write questions in logical order and ensure that each question requires only one answer (this eases database design if being used)
- set up separate databases to complement each questionnaire
- communicate

4. *Talking, Discovering, Connecting (Conducting the Survey)*

- develop a comprehensive list of all businesses and associations
- develop a paper description of what you are doing to give to each person with whom you speak or make contact
- develop a plan for talking to citizens, businesses, and associations
- conduct a training session with new helpers
- initially talk with as many project partner members as possible
- connect with key people in key organizations – talk with them and ask them the question using the questions you designed
- preferably talk with the owner/manager/supervisor in the organization
- expand your organization lists as you talk with new people and new information emerges
- talk in person whenever possible to ensure relationships are developed
- as you are talking make the information sharing and gathering mutual, and relationship building
- record the information (on a database, or on a question sheet)
- communicate

5. *Putting It All Together*

- create an asset map from the information you have to date
- describe what happened and discuss the results to date through a written account or story
- communicate

6. *Communicate – All the time with as many people as possible*

- keep people informed throughout – use church bulletins, newsletters, local paper
- develop a summary (feedback loop) and send a copy to all the people you met
- present copies of the written account to all key parties
- communicate results with communities and groups inside and outside the community/ies that navigated the Community Capacity Building & Asset Mapping© project
- keep a record of to whom the written account or story and summaries (feedback loops) have been sent.

Community Foundations of Canada. (1998). *Explorations – Principles for Community Leadership: A Guide for Community Foundations*. Ottawa.

Community foundations are filling in the void left as governments cut back resources and redefine their roles. This publication describes nine basic principles that define the role community foundations should play in this new reality. They are presented as navigational tools for foundations to chart their futures. Each principle is defined, its importance explored, and suggestions and examples are given for bringing each principle to life within the community.

A discussion guide suggests several ways for foundations to begin the process of exploring each principle to ensure that the change process continues.

The nine principles for community leadership are:

1. *Building Community Capacity* – building on community assets, strengthening organizational and individual capacities to respond to challenges and opportunities, developing local leadership, promoting self-reliance, emphasizing prevention and mobilizing civic participation and resources.
2. *Understanding the Changing Nature of Our Communities* – getting to know the community through consultation, discussion, actively participating, monitoring local and national trends and being aware of the impact of change.
3. *Creating Opportunities for Dialogue* – creating opportunities for respectful dialogue with people with different ideas and points of view.
4. *Developing Partnerships* – based on shared vision and mutual responsibility.
5. *Reflecting Diversity* – communities are better served when different points of view are understood.
6. *Establishing an Effective and Imaginative Grants Program* – continually improving programs to be balanced, flexible, creative and responsive.
7. *Evaluating and Sharing Results* – evaluation helps improve skills and knowledge and key findings must be shared with others.
8. *Implementing Responsive and Accountable Processes* – practices must be accessible, fair, objective, flexible and timely to maintain organizational credibility and trustworthiness.
9. *Balancing Our Resources* – fund development, grant-making and leadership activities are interdependent, so human and financial resources must be balanced.

CommunityWorks Toolbox – Tools for Change. URL www.toolbox.org.

CommunityWorks Toolbox describes itself as “an electronic support system for problem-solvers of America’s communities today.” It uses television and a website to provide resources for community development.

CommunityWorks TV is a nationally syndicated public television program that reports on how people are working together to solve problems in their communities. Viewers can learn how to use the tools, resources, and techniques that worked in other communities.

Tools for Change lists a variety of problem definition and resolution techniques. Four tools are described: getting started (problem statement), collaborating (identifying stakeholders, unleashing talents), communicating, and managing and growing (evaluation and continuation).

Frank, Flo and Smith, Anne. (1999). “The Community Development Handbook.”

URL www.hrdc-drhc.gc.ca/hrfb/hrif/community-communautaire/menu/page2.html.

This handbook was published in support of HRDC’s ‘Community Capacity Building Toolkit.’ It is an introductory guide to community development and capacity building. Its purpose is to provide a common frame of reference for those interested in community development projects. The guide is divided into five sections:

- Section One defines community development and capacity building
- Section Two identifies the conditions that support community development
- Section Three outlines the community development process and how to apply it
- Section Four explores the attitudes, knowledge and skills required to develop the capacity needed to effectively undertake a community development initiative
- Section Five examines common issues and concerns and provides possible solutions.

Community development is defined as the “planned evolution of all aspects of community well-being (economic, social, environmental and cultural). It is a process whereby community members come together to take collective action and generate solutions to common problems” [1999: 6].

Community development tends to occur when:

1. A challenge or opportunity presents itself
2. Community members are aware of their power to act together to benefit their community
3. There is a desire to build on diversity and find common ground
4. Change is taking place and community development is understood to be a positive approach to manage this change [1999: 13].

Community development is seen as unfolding through a flexible process that cannot be reduced to a “fixed blueprint” [1999: 25]. A broad outline of the process is presented in terms of four phases:

1. Building support: clarifying purposes and identifying participants
2. Making a plan: advancing through a seven-step process, including creating a vision, assessing the situation, establishing goals, determining actions, implementing and evaluating.
3. Implementing and adjusting the plan: maintaining focus, coordination and a positive outlook in order to put ideas into effect.
4. Maintaining momentum: ensuring the existence of basic resources such as leadership, partnership, technical capacity, funding, an evolving plan and effective communication [1999: 25].

Successful community development requires certain attitudes, knowledge and skills. Helpful attitudes include respect for the individual, group or community, openness to look at alternative solutions, patience, perseverance and endurance, and trust in others [1999: 61]. A community development team needs knowledge of the community, the nature of social, economic and environmental development, group processes, financial management and fundraising, among other topics [1999: 62]. Five primary skill areas identi-

fied are: communication, facilitation and team-building; research, planning and evaluative skills; problem-solving and conflict resolution skills; management skills; organizational design and development skills [1999: 62].

The handbook concludes with a discussion of seven common problems encountered in the community development process and possible responses. The problems addressed are:

1. Not understanding your own community
2. Getting from planning to action
3. Failing to evaluate results
4. Lack of financial resources
5. Role confusion and power struggles
6. Unresolved conflict
7. Not applying tools and techniques effectively [1999: 69].

Heaven, Catie. (nd). “Developing a Plan for Identifying Local Needs and Resources.” *Community Tool Box*. URL ctb.lsi.ukans.edu/.

This workbook begins by defining needs as a gap between what a situation is and what it should be, and a resource as something that can be used to improve the quality of life. Organizations can use needs and resources to better understand their communities, by tapping into suggestions for change, and for prioritizing program and system improvements.

The beneficiaries of needs and resource work include those experiencing the problem, service providers and community leaders. The chapter leads the reader through a ‘Concerns Report Method’ which is presented as a seven-step process for identifying community needs and resources:

- Phase 1:* Brainstorm to determine the focus of the area of interest.
- Phase 2:* Identify what you know about the issue – this helps highlight what you don’t know. This step asks for conscious awareness that what is known may also be incorrect.
- Phase 3:* Decide what you still need to know and finalize the questions that need answering.
- Phase 4:* Identify the target population.
- Phase 5:* Decide what information collection methods you will use, taking into consideration the time and resources available (financial and human), the size of the target population and your relationship with that population. Suggested methods include: listening session, public forums, needs assessments and asset mapping.
- Phase 6:* Determine what pieces of information are missing and how those limit the outcomes of the study.
- Phase 7:* Determine whether the resources are in place to conduct the study.

Jones, Grant. (2000). *Developing a Neighborhood-Focused Agenda: Tools for Cities Getting Started*. Baltimore, MD: Annie E. Casey Foundation.

This document helps define the key elements that are critical to building strong neighbourhoods – soliciting stakeholder input and involvement and using neighbourhood-level data. It also provides collaborative strategies developing in cities across America.

The neighbourhood-based approach to problem-solving rests on inclusion and partnership. Stakeholder identification and involvement are seen as critical steps in the start-up phase of projects.

Neighbourhood focus groups are identified as effective tools for involving residents in the planning process. In various cities seeking to connect with their neighbourhoods they “helped identify common ground, centers of strength and opportunities for action in the community. They also uncovered tension points and obstacles” [2000: 9]. Planning processes which include stakeholders are sometimes painful, but always more successful.

Data collection begins with identifying important community indicators. Census data, administrative data and special surveys and inventories can be used to identify and monitor neighbourhood conditions, raise awareness, mobilize stakeholders, set priorities, allocate resources, evaluate the effectiveness of strategies and advocate for change. Data storage and management are significant tasks to be allocated among partners.

Examples of program development from a cross-section of American cities show similar strategies:

- systems of support must be developed ‘with,’ not imposed ‘on,’ a neighbourhood.
- diversity and broad community participation are valued.
- neighbourhood strengths must be built on and existing city assets used.
- partnerships and collaborations must be developed.

Kretzmann, John and John McKnight. (1993). *Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community’s Assets*. Chicago: ACTA Publications.

Building Communities from the Inside Out is the primer on asset-based community development. It describes the rationale, key concepts and methods behind this approach to building communities.

Asset-based community development is distinguished from the more traditional ‘needs-driven’ approach. Whereas a needs-driven model focusses attention on the problems and deficiencies of a community, the asset-based approach highlights the presence of its capacities, skills and assets. According to McKnight and Kretzmann, these different starting points generate dramatically different outcomes. The needs-oriented approach generates programs and services in which local residents are seen primarily as recipients of assistance. They come to view themselves as clients dependent on others to provide them with what they need to improve their lives. By contrast, the asset-based approach affirms the capability of local

people to act on their own behalf. It promotes policies and activities that build on existing strengths so that the community not only achieves the outcomes residents desire but also comes to know the full value of its people and resources.

More than a theory about the dynamics of community development, the asset-based approach consists of many practical strategies and techniques for tapping the capacities of communities. The most basic is ‘asset-mapping,’ an inventory that community members use to identify the resources upon which they can draw in the process of community building. Much of this primer is devoted to illustrating the different kinds of assets possessed by individuals, associations and institutions that make up a community as well as the tools that can be used to uncover these in one’s own setting.

A concluding chapter brings the pieces together in a five-step process for mobilizing community assets:

1. Thoroughly map the assets and capacities of individuals, associations and local institutions.
2. Build relationships among local assets for mutually beneficial problem-solving.
3. Mobilize the community’s assets for economic development and information sharing purposes.
4. Convene a broadly representative group to build a community vision and plan.
5. Leverage activities, investments and resources from outside the community to support locally defined, asset-based development.

Kretzmann, J.P. and J.L. McKnight. *The ABCD Institute (Asset-Based Community Development)*.
URL www.nwu.edu/IPR/abcd.html.

The ABCD Institute was established by the Centre for Urban Affairs and Policy Research at Northwestern University in 1995 to disseminate the results of Kretzmann and McKnight’s 20 years of research on capacity-building community development. The Institute is funded by the Chicago Community Trust and the Kellogg Foundation.

In 1993, Kretzmann and McKnight published a guidebook called *Building Communities from the Inside Out* that shifted thinking from a needs and deficiencies approach to identifying existing community assets. The Institute has developed tools and resources for community builders of interest to individuals and organizations from many sectors – e.g., business, education, health and youth.

Communities can access the guidebook and accompanying video to help them begin the process of successful community building.

The key lessons include: locating community assets, combining and mobilizing assets to build a stronger, more self-reliant and powerful community, and engaging the resources of government and philanthropies in the process of community building.

Mariner Resource Opportunities Network Inc. (nd). “Community Development: Principles and Practices.” URL www.cedresources.nf.net.

This paper is the basis for the third module in a training program on community development offered by one of Newfoundland’s regional economic development boards. The paper reviews key concepts associated with the practice of community development, making particular reference to the circumstances of rural Newfoundland.

The paper rejects either a top-down or a bottom-up approach to community development in favour of one where governments and communities work together to achieve development goals. The principles it puts forward are summarized in the words of Tanzanian political leader, Julius Nyerere:

Rural development is the participation of people in a mutual learning experience involving themselves, their local resources, external change agents, and outside resources. People cannot be developed. They can only develop themselves by participating in activities which affect their well-being. People are not being developed when they are herded like animals into new ventures [nd: 1].

Specific principles identified include:

1. Community development is an holistic approach to addressing the community’s needs.
2. Community development is a process: a set of activities that a community pursues in a systematic way over a period of time.
3. Empowerment comes from widespread community influence, participation and community education.
4. Development plans must ensure environmental stewardship.
5. Development results must lead to sustainability.
6. Partnerships provide access to the necessary resources [nd: 2-5].

Three models of community development practice are discussed. In the *social action* approach, a disadvantaged segment of society gets organized and takes action in an effort to win improvements from dominant groups. In the *social planning* model, emphasis is placed on using social science research and professional expertise to solve problems that are perceived as being largely technical in nature. The *community development* approach contends that community change can be pursued through a model of public participation. People are mobilized to plan, make decisions and join in partnership with governments and others to bring about solutions. Local people are seen as knowing what is best for them and being able to participate directly in solving the problems they face. External resources are seen as aids to communities as they pursue development efforts.

McKnight, John. (1987). “Regenerating Community.”
URL www.journalism.wisc.edu:80/cpn/. (link no longer in service)

This article distinguishes between two dramatically different approaches to improving social conditions, one based on institutions that provide services to meet people’s needs and the other that facilitates community processes to develop existing assets.

McKnight contends that most social policy makers conceive the world in terms of a ‘social map’ defined by two key locations: institutions and individuals. In his view, “Many policy experts have come to believe that the well-being of our society significantly depends upon the amount of the commodities called services that are produced by institutions for consumers” [1987: 1]. He identifies three major problems in the social programs designed on the basis of this map: 1. many individuals reject their roles as consumers and therefore resist the services provided; 2. the cost of this service-oriented model is ultimately not sustainable; and 3. the model is proving to be increasingly ineffective and even counterproductive with hospitals, for example, making people sick and prisons fostering criminal behaviour.

The alternative ‘map’ proposed by McKnight is that of ‘community.’ It is the “social place used by family, friends, neighbours, neighbourhood associations, clubs, civic groups, local enterprises, churches, ethnic associations, temples, local unions, local government and local media” [1987: 3]. Whereas institutions operate on a dynamic of control, community is seen as operating on the basis of consent. McKnight summarizes the other qualities which he believes distinguish communities from institutions:

...The community of associations provides a social tool where consent is the primary motivation, interdependence creates holistic environments, people of all capacities and facilities are incorporated, quick responses are possible, creativity is multiplied rather than channeled, individualized responses are characteristic, care is able to replace service, and citizenship is possible [1987: 4]

According to McKnight, policy experts tend to ignore the community realm seeing it as inhabited by “parochial, inexpert, uninformed and biased people” [1987: 4]. In the end, institutionalized systems undermine the vitality of communities: “As institutions gain power, communities lose their potency and the consent of community is replaced by the control of systems; the care of community is replaced by the service of systems; the citizens of community are replaced by the clients and consumer of institutional products” [1987: 4].

McKnight describes three visions of society that dominate current discourse. The *therapeutic vision* sees well-being growing from professionals and their services; liberty is conceived as “the right to treatment” [1987: 5]. The *advocacy vision* offers a world where labelled people are protected by advocates and advocacy groups; it is a defensive model. The *community vision* sees community connections as vital for people to be able to contribute their gifts. It goes beyond therapy and advocacy by focussing on individual abilities and by strengthening constellations of community associations.

McKnight concludes by highlighting three aspects of the community discourse: stories, celebrations and tragedy. In universities, he writes, people know through studies while in communities they know

through stories: “Successful community associations resist efforts to impose the foreign language of studies and reports because it is a tongue that ignores their own capacities and insights” [1987: 6]. Communities are also places of “laughter and singing” as opposed to the silent hallways of institutions [1987: 6]. Finally, communities give expression to the deeper dimensions of human experience such as tragedy, death and suffering that tend to be beyond the capacity of institutions.

Murk, Peter J. and Jeffrey L. Walls. (1998). “The Planning Wheel: Value-added performance.” *Journal of Workplace Learning*. 10 (5): 232-240.

This planning wheel model follows work done by Murk and Galbraith, and Murk and Wells into the Systems Approach Model (SAM), a nonlinear program planning model which allows a degree of flexibility and progress not possible in a traditional, linear, step-by-step approach.

The six components of the planning wheel are: evaluation and follow-up, educational process determinants, needs assessments, instructional planning, administrative and budget development, and program development and implementation. Each of the activities associated with these components may go forward independent of the outcomes of the other five, though conceptually, evaluation forms the hub of the wheel. It is therefore both central and influential to the processes that flow from the planning activity.

The wheel is adaptable to a variety of settings and needs, and it does not preclude a linear approach to planning, if that is the users’ preference. The wheel can be put in motion to answer the following questions:

1. How can we coordinate our work so that we can accomplish multiple tasks?
2. Based on what the competition is doing, how can we create a program that will be a step ahead of them?
3. How can we make the transition from a program idea to a program reality?
4. Our last program was not as good as it might have been; where and how do we start over? [1998: 239].

The wheel’s structure allows for internal and external influences that may affect the planning process. These include politics, the economy, culture, competition and technology.

National Association for Community Leadership. URL www.communityleadership.org.

The National Association for Community Leadership is a nonprofit organization dedicated to nurturing community leaders. Founded in 1979, its mission is to strengthen and transform communities by enhancing the capacity of inclusive community leadership development efforts.

The organization offers professional development opportunities (including an annual leadership conference, workshops and educational programming), a searchable on-line member directory and discussion forum. Peer-to-peer networking, industry insight and resources, and staff support are available to members.

An on-line organizational newsletter and publications catalogue also are available to both members and non-members.

National Civic League. (2001). All-America City Award Application.
URL www.ncl.org/ncl/aac.htm.

The All-America City (AAC) Award, now in its 52nd year, recognizes exemplary grassroots community problem-solving. Each year, it is awarded to ten communities that cooperatively tackle their challenges and achieve results. The award celebrates vibrant, resourceful communities in which neighbours pitch in together; communities with a diverse collection of talents and people who do not dwell on the problems of the past, but focus instead on the opportunities of the present and possibilities for the future.

For more than 50 years, the All-America City Award has encouraged and recognized civic excellence, honoring communities of all sizes (cities, towns, counties, neighborhoods and regions) in which citizens, government, businesses and voluntary organizations work together to address their critical local issues.

Completing the AAC application requires cooperation and collaboration. It offers an opportunity for communities to examine their strengths and possibilities, to explore local resources and to create innovative solutions to their problems.

Criteria for awarding the prize represent a check list of success features for healthy communities. Awards are presented to communities that demonstrate:

- participation of the public, private and nonprofit sectors and key constituencies to the maximum extent possible.
- recognition and involvement of diverse segments and perspectives (e.g., ethnic, racial, socioeconomic, age) in community decision-making.
- creative use and leveraging of community resources.
- significant and specific community achievements.
- projects that address the community's most important needs.
- cooperation across jurisdictional boundaries.

National Civic League. “Healthy Communities Programs.”

URL www.ncl.org/ncl/hci.htm.

The National Civic League was created at the end of the 1800s to involve citizens in the operations of their communities. Its healthy communities work stems from this principle, and offers a variety of services to assist development of collaborative plans among government, citizens, nonprofits and business within an inclusive decision-making structure.

Operating principles of the Healthy Communities Program reflect community-building best practices:

- community health must address root causes including economy, education, parks and recreation, arts, mental health, and community spirit and unity
- collaborative, consensus-based approach to problem-solving involving a diverse citizens’ group
- an assets-based approach to problem-solving (as opposed to needs- or deficit-based approaches)
- addressing challenges at a systems level
- creating a shared vision for the future which captures hopes and dreams and guides collaborative work in the community.

The National Civic League offers speakers; training in healthy communities principles, skills and tools; help with designing long-term healthy communities initiatives; and connection to a national network of healthy communities innovators.

Specific training and technical assistance is available for stakeholder analyses, visioning, measuring community capacity for making decisions and solving problems (specifically the ‘Civic Index’), assets mapping, assessing current realities, action planning and implementation.

Skills training is available for the following: collaboration, building consensus, facilitation and collaborative leadership.

Publications and Healthy Community links are offered through the organization’s website.

Potapchuk, William R. et al. (1998). *Building Community: Exploring the Role of Social Capital and Local Government*. Denver: National Civic League.

This publication discusses the nature of social capital and its importance in helping economically disadvantaged children and their families realize healthy lives. It particularly identifies strategies local governments can use to nurture the development of social capital.

Social capital is described as the “glue that holds a community together” [1998:7]. More technically, it is defined as “the norms and networks of social relations that build trust and mutual reciprocity among community residents, social organizations and civic institutions” [1998:5]. Social capital is the network of relations among persons that can be used to get things done. As such, it is seen as one of the prerequisites of a healthy community.

Drawing from the work of Harvard University political scientist, Robert Putnam, two types of social capital are identified: localized and generalized. Localized social capital exists within individual families, neighbourhoods and associations. Generalized social capital brings together more diverse groups of people and runs across traditional social and physical boundaries. Both are considered crucial for community functioning [1998: 8].

Based on the core idea of social capital, a model of community building is developed. The model consists of three basic levels of social organization (family, neighbourhood and community) and four elements deemed critical to building a healthy civil society (social capital, social interaction, civic infrastructure, civic culture). Social interaction refers to the connections with others that individuals and organizations experience on a daily basis. Not all interaction strengthens social capital; care is needed in how interactions are structured. Civic infrastructure includes formal and informal processes of decision-making. A healthy civic infrastructure creates strong linkages among families. Civic culture is defined as the sense of identity shared by a community and expressed through its character, cultural life and the way individuals and organizations relate to one another [1998: 9-10].

The paper proceeds to discuss how social capital can be built at the family, neighbourhood and community levels. It recommends approaches that can be taken by local governments to foster the development of social capital. Recommendations include: serve the whole community, not isolated subpopulations; focus on assets, not just needs; design decentralized, comprehensive, place-based programs; build opportunities for participation; serve as conveners; create a shared vision for the community; act as a bridge between neighbourhoods, community organizations and social institutions; and create institutional forums for action [1998: 23-24].

Potapchuk, William R. and Caroline G. Polk. (1994). "Building the Collaborative Community." Washington, DC: National Institute for Dispute Resolution and the Program for Community Problem-Solving.

This paper presents an approach for encouraging the use of collaborative processes in federal programs, both at the community level and between federal and local governments. These processes are seen as effective and efficient because they involve interested parties in all phases of problem definition and resolution, and assist in building useful, positive relationships for future projects. Applications of the process are successful when they are inclusive, use face-to-face dialogue and negotiation, make decisions by consensus, frame issues flexibly, gain the support of all parties involved and make the consensus-building process part of the 'real' decision-making.

The authors describe two ends of a collaborative process continuum. On one end is "collaborative decision making and conflict resolution in which parties work together to find solutions to a problem" [1994: 2]. At the other end, are collaborative organizations: "permanent structures composed of groups and individuals who come together to coordinate social services, monitor solution implementation stemming from collaborative decision making efforts, or provide a new service to the community" [1994: 2]. Ongoing

cooperative relationships exist where people work together with varying degrees of shared goals and resources.

Collaborative processes are seen as an effective alternative to the gridlock produced when authority figures present decisions from ‘on high,’ rather than as a result of consultation. They bring people together, increase cooperation between agencies and governments, coordinate with private sector and community-based initiatives and produce results. They present an alternative in an era in which fewer funds are available to deal with critical issues, local governments are forced to assume greater responsibility for local issues, many stakeholders are involved, and governmental and nongovernmental organizations work together.

The paper also presents numerous examples of successful collaborations in public decision-making. For example, Abilene, Texas, needed a strategic plan to counter the effects of lower gas, oil and agricultural prices in the late 1980s. Some 20 community leaders surveyed 40 more community leaders and 200 randomly selected citizens. A weekend retreat for 200 community leaders used the survey results to help establish goals and directions. Eventually, a widely supported penny sales tax increase was established to fund economic development activities, a state law was changed to allow a junior college to expand into Abilene and a number of multicultural leadership retreats helped build leadership capacity and better working relationships between groups.

Collaborative systems delivery allows groups to accomplish goals that they would not be able to achieve on their own. Developing visions of what services are needed results in two different paths – collaborative betterment (a top-down collaboration) and collaborative empowerment (rooted in the community). Despite success, few examples of these collaborative service delivery systems actually exist.

Joint federal-community touchpoints for collaboration exist where federal law or regulations require local planning to receive funds; where federal laws or mandates require specific local or state government actions; and where complex policy goal implementation requires multisectoral coordination.

The paper presents two areas in which the federal government can encourage collaborative processes: as conditioner of funds and provider of incentives. In the area of capacity building, federal agencies can develop training and technical assistance programs, create convening and networking opportunities, and develop innovation diffusion programs.

The authors conclude that it is essential to learn to apply the principles of collaboration if citizens are to enjoy healthy communities in the future.

Torjman, Sherri. (1998). *Strategies for a Caring Society*. Ottawa: Caledon Institute of Social Policy, October.

The author presents a framework of discussion for community investment strategies. Building community capacity is presented as an holistic approach to “solving problems and to improving the quality of life” [1998: 3].

In the author's view, the overarching conceptual framework at the heart of community capacity-building is sustainable development, which itself rests on the value of the ethic of care. Governments play a crucial role in providing "... the moral leadership that reinforces the concepts of stewardship, responsible citizenship and the associated notion of care" [1998: 4].

Sustainable development and the ethic of care provide the foundation of community investing which include the strategies of:

- poverty reduction
- broadened concept of investment
- civic engagement
- problem-solving
- partnership
- leadership development
- celebration.

Each strategy is defined and discussed.

Torjman, Sherri. (1997). *Civil Society: Reclaiming our Humanity*. Ottawa: Caledon Institute of Social Policy, March.

This report explores the meaning of the concept 'civil society.' While this term is being used more frequently in public discourse, there is no common understanding of what it actually means. This paper contributes to the debate by operationalizing the term and linking it to international thinking on sustainable development.

The paper proposes that a civil society seeks to achieve three key objectives: caring communities, economic security and social investment. These objectives are not new. What is different about the concept of civil society is the means by which these traditional objectives are achieved, including a broad interpretation of resources which recognizes the role of three types of capital (financial, natural/built and human), the creation of partnerships and collaborative working arrangements among individuals and sectors within communities, and holistic responses to problems that integrate economic and social concerns.

The overarching theme of civil society is citizenship – which includes not only rights but also broad, collective responsibility for economic, social and environmental well-being. Ultimately, civil society is seen as both a means and an end: "A civil society sustains and enhances the capacity of all its members to build a caring and mutually responsible society" [1997: 1].

III. Community Learning Processes: Models for Participatory and Collaborative Learning

Atlee, Tom. (nd). "A Compact Vision of Co-Intelligence." The Co-Intelligence Institute.
URL www.co-intelligence.org.

Collective intelligence (co-intelligence) is defined as "a shared, integrated form of intelligence that we find in and around us when we're most vibrantly alive." It is apparent "whenever we pool our personal intelligences and produce results that are more insightful and powerful than the sum of our individual perspectives."

Atlee presents co-intelligence as a capacity which we each possess, not a methodology. When we use this capacity, we become "more tuned in to the wholeness, interconnectedness, and co-creativity of all life – and the more we can sense the larger co-intelligence that is always there waiting for us, waiting to operate through us for the benefit of all." By understanding the concept, we can fulfill "the original dream of democracy: the participatory determination of our collective fate."

Examples of collective intelligence can be found in large groups, organizations, communities, states and nations. "Collective intelligence increases as it creatively includes relevant viewpoints, people, information, etc., into collective deliberations."

Atlee is optimistic that recent use of proxy dialogues, the sophisticated use of media and group processes that creatively use diversity will set us on a path to political collective intelligence.

A subcomponent of co-intelligence is collaborative intelligence, which he defines as "exercising a co-operative quality or style of intelligence – the capacity to apply intelligence in a spirit of partnership, rather than for domination, defense or escape." That is, "when people align their individual intelligences in shared inquiries or undertakings, instead of using their intelligence to undermine each other in the pursuit of individual victory, they are much more able to generate collective intelligence."

Collaboration allows us to form alliances, learn from the natural tendencies at work in a situation, collaborate with nature, and collaborate with a higher intelligence or universal plan or pattern. A challenge to collaboration is the creative use of diversity of intelligences (multiple intelligences).

As a general theory, Atlee suggests that intelligence "is fundamentally about creating and re-creating wholeness, coherence, fittedness." When harmony is broken by doubt, challenge or change, our intelligence seeks a high-level coherence to make sense of our experience.

"The renewal and healing of our intelligence begins with this sense of intelligence as our capacity for creating and discovering coherence. It continues with the inquiry into what intelligence would look like if we took wholeness, interconnectedness and co-creativity seriously."

Beach, Lee Roy. (1997). "Organizational and Group Decisions." *The Psychology of Decision Making: People in Organizations*. Newbury Park, California: Sage.

This chapter from a textbook on decision-making reviews models which can be adapted to fit different organizational types.

The organizational models considered are:

The Rational Model – Presumes one paramount goal towards which everyone strives; unlimited information and the ability to use it; knowledge of all opportunities and consequences; proper choice of action will be revealed through normative analysis.

The Information Model – Constraints on acquiring complete information means that past successful options are used until they are shown to be unsuitable.

The Structural Model – Breaking an organization down into units and giving them various parts of the process according to their capabilities. Goal agreement and communication of those goals still present problems. Less concentrated control means that change is slower if things do not progress smoothly. Often coupled with top-down management, this model is criticized as conservative and slow.

The Garbage Can Model – Organizations are seen as collections of problems, solutions, participants and opportunities in which randomly mixed solutions and problems await opportunity. The model suggests that participants' attentions are divided and that decisions are necessarily linear.

The Participation Model – Examines the advantages and disadvantages of member participation, arguing that the pool of resources is greater for groups. Studies show that groups can actually hamper idea generation and lead to over-confidence in the decisions taken [1997: 126-131].

Three types of narrative-based decision-making models are discussed:

Scenario Model – The model involves four steps: 1) Frame and goals defined and relevant information is retrieved; 2) If-then propositions build a causal model; 3) Plausible values are assigned to the 'if' part of each proposition; 4) The model is run through the scenarios and values assigned to each proposition, leading to different forecasts.

Story Model – Using known facts and personal views of behaviour, a 'likely story' version of events is constructed to forecast present events. This is a method often used by juries.

Argument-Driven Models – Using pros and cons, the decision-maker assesses the situation drawing on past experience and existing knowledge to determine a course of action that matches the demands of the situation. Uncertainty and revision are inherent in order to account for unknowns [1997: 147-152].

Cancian, Francesca M. and Cathleen Armstead. (1990). "Participatory Research: An Introduction." Irvine, California: Department of Sociology, University of California.

As presented by the authors, participatory research is "an alternative approach to social research that integrates scientific investigation with education and political action. Participatory researchers work with members of a community to understand and resolve community problems. The researchers and the researched cooperate in a joint process of critically understanding and changing the social situation, so as to improve people's daily lives, empower them and demystify research. The methods of participatory research include group discussions of personal experience, surveys and analysis of public documents. For social scientists who question the traditional values of being detached and value free, and are seeking an approach that is less hierarchical and that serves the interests of those with little power, participatory research is a valuable alternative" [1990: 1].

The authors spend some time providing examples of this form of research and include an historical account of its relationship with positivism and feminism. However, they are careful to note that "participatory research is a process that develops through working with a particular group of people: therefore, a precise general definition would be self-defeating insofar as it would block the group from developing their own methods" [1990: 3].

Despite this cautionary note, the authors identify five central aspects of participatory research: "1) participation in the research by the people being studied; 2) inclusion of popular knowledge, personal experiences and other non-scientific ways of knowing; 3) a focus on empowerment and power relations; 4) consciousness raising and education of the participants; and 5) political action" [1990: 3].

While the authors note that "few participatory research projects succeed in accomplishing social transformations... projects usually do succeed in strengthening or 'creating a community network and at the same time fostering critical knowledge'" [1990: 6]. In addition, "many projects include little or no collective action, and are limited to raising consciousness and changing the behavior of individual participants" [1990: 7].

At its core, participatory research is about empowerment and about bringing the subjects of an otherwise detached study into the process in order to foster new and often more valid knowledge of their situation for both participants and researchers. It is also a way of fostering a valuable information network between subjects that can help them collaborate to bring about change. A meaningful aspect of this with respect to community learning is the approach's apparent acknowledgment of the value of direct relationships for the transfer of information.

Fals-Borda, Orlando. (1984). "Participatory Action Research." Development: Seeds of Change. 2: 18-20.

Similar to other proponents of participatory research, the author distinguishes participatory research from methods following the dictates of positivist social science, emphasizing the advantages in terms of collaborative and critical learning for all involved.

An important point is made under the heading “production and diffusion of new knowledge” in which the author states: “PAR [participatory action research] recognizes an intellectual division of labor between and within base groups. Although PAR strives to end the monopoly and slavery of the written or printed word, practice has shown the importance of systematizing new data and knowledge according to the level of political conscience and ability for understanding... by the masses and the public in general. Four levels of communication are thus established: 1) when the message and the systematized knowledge are addressed to pre-literate peoples; 2) when the message is addressed to semiliterate peoples; 3) for middle range leaders and cadres; 4) for advanced cadres and intellectuals” [1984: 19]. The existence of these levels requires that a “PAR researcher should learn to address all four levels with the same message if he wants to be really effective as a communicator” [1984: 19].

The author continues by stating that “there are material forms for returning systematic knowledge to the people, such as in the organization of co-operatives, shops, training centers, action units and the like, presented and considered as applied results of the research” [1984: 19]. The author also notes the importance of linking micro with macro (or, bridging the gap): “A new type of State which should be as participatory, pluralist, and truly democratic as its original components at the grass roots level” [1984: 20].

Hall, Budd L. (nd). “Participatory Research: An Approach for Change.” Toronto: International Council for Adult Education.

This article discusses the participatory research approach with special attention to the alternative it poses to research methods based on positivist social science. While positivism is taken to be value-free and neutral, it is replete with its own biases. Participatory research is introduced as a possible alternative, one that acknowledges its biases [nd: 24]. One possible benefit of participatory research is that it may help to humanize the social sciences.

The current shortcomings of the social sciences, as recounted by Hall are: 1) the survey research approach oversimplifies social reality and is therefore inaccurate; 2) survey research is often alienating, dominating or oppressive in character; 3) survey research does not provide easy links to possible subsequent action; and 4) survey research methods are not consistent with the principles of adult education (programs should be based on adult needs, adults are more capable of articulating their learning needs; the phrase ‘too old to learn’ is a fallacy; adults work out complex learning strategies in order to learn on their own) [nd: 25-29].

Hall’s definition of participatory research is similar to that put forward by other writers. A research process should be of some immediate and direct benefit to a community and not merely the basis of an academic paper. A research process should involve the community or population in the entire research project from the formulation of the problem to the discussion of how to seek solutions and the interpretation of the findings. If the goal of the research is to bring about change, then the research team should be composed of representatives of all elements in the situation that have a bearing on the change. The research

process should be seen as part of a total education experience which serves to establish community needs, and increase awareness and commitment within the community. Finally, the research process should be viewed as a dialectic process, a dialogue over time and not as a static picture from one point in time [nd: 28-30].

Hall, Budd. (1982). “Breaking the Monopoly of Knowledge: Research Methods, Participation and Development.” In Hall, Budd et. al. (ed.). *Creating Knowledge: A Monopoly?* New Delhi: Society for Participatory Research in Asia.

Hall’s article presents a basic description of the nature of participatory research in line with that of other authors on the subject. He discusses the problems with the current positivist paradigm, the impossibility of value neutrality, and the need to foster more direct collaborative relationships between researchers and their subjects in the social sciences lest we continue to create “a situation in social science research which effectively denies recognition of the knowledge-generating abilities innate to every human being in the world” [1982: 24].

International Council for Adult Education. (1982). *Participatory Research: An Introduction*. Toronto: Participatory Research Network, International Council for Adult Education.

This introduction to participatory research presents the rationale behind this research model, describes a wide range of techniques through which it can be operationalized and raises some issues to be considered by practitioners. Brief case studies are used throughout to illustrate the ideas presented.

Participatory research is seen as a means to enable marginalized groups to overcome challenges of social inequality and exploitation. It seeks “to play a liberating role in the learning process by promoting the development of a critical understanding of social problems, their structural causes and possibilities for overcoming them” [1982: 1]. A defining feature of participatory research is that it “calls for democratic interaction between the researchers and those among whom it is being conducted” [1982: 1].

Participatory research consists of three interrelated processes:

1. Collective investigation of problems and issues with the active participation of the constituency in the research process.
2. Collective analysis in which the constituency develops a better understanding of the problem, including its underlying social, economic, political and cultural elements.
3. Collective action by the constituency aimed at long-term as well as short-term solutions [1982: 2].

The process begins with people’s concrete experience and moves to include theoretical analysis and action aimed at change. Evaluation of the process itself serves to deepen the understanding of the situation

and the challenges associated with achieving constructive change. Collective discussion is the binding thread through which people come to understand the issues they are facing and determine ways of working together to counter them.

Methods discussed for operationalizing participatory research include: group discussions, public meetings, open-ended surveys, community seminars, fact-finding tours, collective production of audiovisual materials and popular theatre. The techniques involved in each method are discussed and illustrated.

One of the key concerns for participatory research is that marginalized groups exercise control over the process. It is noted that such groups begin the process with valuable knowledge. By drawing on that knowledge to ask questions, design the research agenda and implement strategies, participants are strengthened both in knowledge and in power. Research facilitators play important roles in the process. To ensure that control rests with participants, the part played by facilitators needs to be negotiated at the outset of the project.

Learning City Network. (1999). *Learning Towns and Cities: Pathfinder Project Report*. London.

The United Kingdom has been a leader in the development of ‘learning communities.’ Its Learning City Network has involved dozens of cities in the process of fostering ‘life-long’ and ‘life-wide’ learning.

In 1998, the Learning City Network published a guide called “Practice, Progress and Value” to help communities undertake and evaluate their initiatives. The Pathfinder Project was established to field test the guide. This report relates the benefits and limitations community groups found in using the guide. Much of the report consists of descriptions of the 18 community initiatives and their assessment of the guide. Latter sections of the report summarize the findings.

The most important conclusion drawn by the Pathfinder Project concerns the basic design of the guide. Although consideration had been given to producing a highly structured guide, it was decided that local variations were such that this would be inappropriate. In the end, the guide was intended to provide a “loose structure within which initiatives could construct their locally distinctive form of Learning Community” [1999: 20]. The feedback gathered through the Pathfinder Project led to the conclusion that this was the wrong approach. Many projects indicated that they wanted a more structured ‘how to do it’ guide. In particular, many projects regretted the absence of checklists, structured series of questions, flow charts, prompts and sets of evaluation exercises. Importantly, projects were not necessarily inclined to follow these more detailed guides in a rigid fashion but expected to be able to customize these tools to suit their particular needs.

A second important finding was that many projects found the guide too complex and multi-layered. A number found that the use of project facilitators or consultants enabled them to understand and use the guide more effectively.

A third conclusion identified that more assistance was needed by communities on various aspects of evaluation, especially with designing and collecting baseline data and being able to track the outcomes emerging from complex, multifaceted initiatives.

The report also lists a series of other points raised by projects about the difficulties and successes they experienced:

- The need to combine talk and development of shared vision with practical action and achievement.
- The value of a ‘champion’ to act as a figurehead that gives credibility and status to the project.
- The need for an ‘honest broker’ to prevent the project being dominated by any one sectoral interest.
- The necessity of involving a wide range of partners and being clear about roles.
- The importance of starting evaluation early [1999: 22].

Lipton, Laura and Bruce Wellman. (2001). *Data-driven Dialogue: Practical Strategies for Collaborative Inquiry*. Mira Via, LLC.

Lipton and Wellman have developed a model to assist educators in changing their orientation from teacher-centered to learner-centered approaches.

Assumptions underlying the ‘data-driven dialogue’ process include:

- Data have no meaning: Individuals and groups create meaning by organizing, analyzing and interpreting data.
- Knowledge is both a personal and a social construction: Humans are meaning making organisms. Knowledge is socially constructed and individually integrated.
- There is a reciprocal influence between organizational culture and the thinking and behaviour of an organization’s members: New behaviours challenge existing cultural norms.
- Cycles of inquiry, experimentation and reflection accelerate continuous growth and learning: Learning occurs when people shift from professional certainty to conscious curiosity, from isolated individual to collaborative community and from passive technician to active researcher [2001: 10-11].

The authors distinguish between data-driven dialogue and data-based decision making. The latter entails leaders and specialists coming to their own understanding of data and then explaining it to others in an effort to move them toward solutions. By contrast, “data-driven dialogue is a collective process designed to create shared understanding of issues and events using information from many different sources. Well-crafted dialogue honours the emotional as well as the rational components of problem-finding and problem-solving” [2001: 11].

Data-driven dialogue involves a three-phase ‘collaborative learning cycle:’

1. *Activating and Engaging: Surfaces experiences and expectations*
 - Role: engage prior knowledge, skills, understandings; expand individual and group knowledge base; surface and articulate frames of reference.
 - Possibilities: respect expertise and experience, develop readiness, frames of reference emerge, necessary cognitive and emotional resources are activated.
 - Liabilities if missed: too much data, defensive postures ready, wide discrepancies of perceptions about data.

2. *Exploring and Discovering: Analyzing the data*
 - Role: examine and differentiate information in light of current schema; investigate hypotheses, concepts and principles; reconsider and tentatively refine schema.
 - Possibilities: purposeful uncertainty and conscious curiosity. Use of large vibrant data displays ensures shared learning experience.
 - Liabilities if mishandled: confusion, time wasted in sorting out critical details. Data is always incomplete and groups often rely on too little information and develop premature solutions for ill-defined problems.

3. *Organizing and Integrating: Generating theory*
 - Role: synthesize and represent information; develop frameworks and models; catalogue and index new understandings.
 - Possibilities: develop multiple theories of causation before generating theories of action. Theories of causation are separated from theories of action. Multiple causes identify additional data sources to confirm and clarify emerging causal theories. Increased confidence in most likely causal theories leads to increased confidence. Theories of action lead to planning, problem-solving and action research projects – continues the cycle of inquiry.
 - Liabilities: rapid closure of the enemy – action can override causation [2000: 16-18].

Ultimately, the authors contend that the data-driven dialogue process helps build collaborative relations among participants: “As we learn to link statistics and stories, numbers and narrative, and data and dialogue, new possibilities for community building and richer forms of professional practice emerge that will better serve student learning in these changing times” [2001: 18].

Malhotra, Yogesh. (1996). “Organizational Learning and Learning Organizations: An Overview.”
URL www.brint.com/papers/orglrng.htm.

This paper is a review of current thinking on organizational learning and organizations that learn. Organizational learning is defined as the “detection and correction of errors” [1996: 1] and includes knowledge acquisition, information distribution, information interpretation and organizational memory.

A learning organization makes it impossible not to learn because learning is deeply embedded into the organization's fabric. Given our rapidly changing and complex business environment, one reviewer states: "The rate at which organizations learn may become the only sustainable source of competitive advantage" [1996: 2].

A discussion of adaptive versus generative learning points out that organizations need to have and maintain adaptability. Adaptive organizations simply cope with situations instead of gaining insight and understanding through the examination of successes and failures.

Leaders in learning organizations are responsible for learning. Their basic task is to foster learning rather than devise plans. A generative learning organization assesses leadership ability by looking at *how* individuals learn, not *what* they learn. Openness, systemic thinking, creativity, a sense of efficacy and empathy are desirable qualities for a leader in these environments.

Information systems are seen to impose constraints on organization learning at the present time, since most "...focus on the convergence of interpretation and are not geared for multiple interpretations" [1996: 3].

New Economy Development Group. (1998). *Models of Community Learning Networks in Canada*. Ottawa: Human Resources Development Canada.

This study examines the role of Community Learning Networks (CLNs) as an instrument for supporting learning in communities that are transitioning to the 'new economy.' In their review of the literature, the authors identify several themes that provide a foundation for analyzing Community Learning Networks, including: the role of computer and networking technology in galvanizing community development, improving access to knowledge and skills for disadvantaged groups and individuals, and the blurring of the distinction between teacher and learner. The literature also refers to the dual role of technology as a network enabler and learning tool, and the effects of network technology on citizen participation and entrepreneurship. Lifelong learning and the shift towards more collaborative and active learning also are identified as key themes.

The authors arrive at a working definition of Community Learning Networks by integrating the major features of its essential components: the community, the learning and the network. The ensuing definition focusses on community-controlled networks that seek to further community development through lifelong learning, operate within a geographic sphere that is also a community of interest and often use technology as an enabler for networking and/or learning. Building on this definition, the authors propose a framework for analyzing Community Learning Networks that takes into account the salient features of the concept: community, network, learning and technology.

After presenting a number of case studies from both Canada and the United States, the authors arrive at several conclusions. They stress the importance of establishing collaborative partnerships among a broad range of groups including government, the private sector and the local 'institutional' sector. By sharing

knowledge and resources, these partnerships have played an integral role in the development and survival of Community Learning Networks.

The case studies also indicate that these networks have been effective at building momentum for community development and encouraging innovative thinking in order to meet the challenges of a changing economy. The use of technology for both networking and learning functions has led to increased access to relevant information and services, as well as new learning opportunities. The authors conclude that government funding has played an integral role in the initial startup of projects, but in order to achieve longer term sustainability, Community Learning Networks have had to turn to diverse sources of funding from institutional, private and public partners, as well as cost-recovery and income-generating components.

While the case studies point to visible impacts on several communities, it is clear that much of the impact on learning from Community Learning Networks is difficult to gauge and possibly not measurable at all. Despite this difficulty, the authors stress the importance of establishing clear measures of success in order to build and retain public support.

In Appendix E, the authors cite material from the literature on Community Learning Networks and reiterate the key points from the main text.

Several of the authors discussed point to the widespread use of community freenets in Canada and the benefits of computer and networking technology for community development. The use of these technologies is credited with slowing rural migration, reducing isolation for both rural and urban communities and increasing access to knowledge and skills for disadvantaged groups and individuals. It is noted, however, that access to too much information can be overwhelming; information becomes intelligible and useful only through effective screening and a human interface.

The literature highlights the potential for tapping into community resources through networking that supports 'many-to-many' communication and results in greater sharing of valuable information. The use of Community Learning Networks also results in a blurring of the boundaries between teacher and learner and a much more inclusive learning environment.

The authors draw a distinction between technology as a tool for networking communities and technology as a tool for learning. As a networking tool, technology can facilitate collaboration and encourage participation in political and economic activity. The success of community networks at leveraging technology for development will depend on financial sustainability. As a learning tool, information technology creates a learner-driven model that is subject to market demand, encourages greater participation and thus more active learning, and makes possible more collaborative learning by overcoming the logistical barriers of face-to-face learning. Despite the fears of technology creating a dehumanized learning environment, many people find the social reality of the network to offer a more humanized learning experience.

For the purposes of defining community learning networks, the authors favour a definition of community that incorporates both geographic and commonality elements. While a community of interest is generally thought more relevant to a technology-based network which eliminates physical barriers, the use of community learning networks in mobilizing community development points towards a definition that favours geographic communities.

The literature also provides various definitions of learning that distinguish between education as an “external, systematic social process” and the internal process of learning whereby “knowledge, skills and attitudes are acquired” and then used to solve problems and make decisions [1998: 112]. The term “learning” itself is further broken down in the literature into three different categories: formal learning, non-formal learning, and informal learning. Community learning is defined as an activity through which a group identifies and then solves common problems while acquiring knowledge and skills. This type of learning, which is distinguished from a learning community, operates in a horizontal, networked fashion and often is associated with lifelong learning. A common theme throughout much of the literature on Community Learning Networks, lifelong learning recognizes that “individuals learn over the course of their lifetimes and in a multitude of contexts” [1998: 114]. Lifelong learning is an integral component of the new learning-driven model of education that recognizes that learning occurs “using many means and in a variety of contexts” [1998: 108] and is posited as the main rationale for establishing Community Learning Networks. It also is recognized by the OECD as an important means of acquiring the skills and knowledge necessary for economic success.

Faris, Ron and Wayne Petersen. (2000). *Learning-based Community Development: Lessons Learned for British Columbia*. British Columbia: Minister of Community Development, Cooperatives and Volunteers.

In this report on learning-based community development, the authors build a working definition that views community development through the lens of lifelong learning. The learning-based approach to community development recognizes the importance of continuously acquiring new skills and knowledge in meeting economic and social development goals.

While not in itself a distinct type of community development, the learning-based approach can be applied to the many different purpose-driven models that constitute this fragmented field. It is a learner-driven perspective that draws on multiple academic disciplines, recognizes the social nature of learning and assumes that “men and women have within themselves and their communities the spiritual and intellectual resources adequate to the solution of their own problems” [2000: 57].

In tracing the history of learning-based approaches in Canada, the authors provide examples of contributions by both the nonformal and formal education sectors. Going back to the turn of the 20th century, the various examples depict a tradition of community development rooted in local and national initiatives by groups such as Frontier College, the formal education sector and the federal and provincial governments. In British Columbia, several studies in the early 1990s demonstrated that educational institutions, which historically contributed to local development, had become less supportive of community development goals.

Turning to an international perspective, the authors review several trends, such as the globalization of economic power and free market ideology, which may have negative consequences for community development. Other trends, as exemplified by the concepts of social capital and community capacity-building, point to a positive future for learning-based approaches to community development. The concept of social capital is rooted in the belief that the intangible assets of a community – “the intellectual capacity, know-

how, trust, networks and shared values of the residents” [1998: 18] – are essential to the promotion of economic development and social inclusion. A related concept, community capacity building, stresses the importance of continuous learning in empowering community organizations to achieve development objectives.

Learning City Network. (1998). *The Toolkit – Practice, Progress and Value*. London, England: Minister of Education and Employment.

The toolkit provides a guide for local communities that are transitioning to a learning city. It is premised on the assumption that learning cities will develop along three strands of development, identified as partnership, participation and performance. The guide outlines three levels of learning that apply to each strand: getting organized, developing shared understanding and learning to learn. For each strand of development, the guide applies the three levels of learning and suggests strategies, provides examples and contains a checklist for mapping progress.

Strand One: Partnership

By recognizing where purposes and goals overlap and collaborating with multiple organizations, a partnership can maximize its influence as a force for change and add value to the individual activities of its members. In this section, the guide suggests steps to organize a ‘permanent dynamic model’ of partnership “which will represent the whole community and not be specific to the education and training sector” [1998: 16]. The guide then outlines ideas for building a shared vision and demonstrating the advantage of working together despite a diverse range of interests among partners. The third level of learning focusses on developing systems for self-evaluation and a culture of learning that enables a partnership to continuously seek self-improvement.

Strand Two: Participation

The second strand advocates more responsive public policy through which a diverse range of groups directly influence the development of their community. The guide recommends a strategy for participation that learns from and involves people from multiple communities and follows all possible avenues, including ‘bottom up’ and ‘top down’ approaches. The second section of this strand focusses on the importance of learning from these consultations and accomplishing a shared understanding that reflects the views of the public and the experts. In order to develop a model of participation that is self-sustaining, the guide outlines strategies to expose communities to “learning opportunities to build on and develop the skills for economic success” [1998: 31]. The third level of learning emphasizes a culture of learning in which communities are involved in the evaluation of the learning city.

Strand Three: Performance

A learning city must develop a strategy for evaluating performance that measures progress through internal assessment, against the performance of other learning cities and by evaluating the impact or added value of the learning city. In the first section of this strand, the guide outlines strategies for establishing targets and organizing a system of measures for internal assessment. The second section helps learning cities use both quantitative and qualitative measures in comparing themselves to comparable groups and against national benchmarks. The last section outlines a theoretical approach to measuring the value that learning cities contribute to their community.

Nyden, Philip and Wim Wiewel. (1992). “Collaborative Research: Harnessing the Tensions Between Research and Practitioner.” *The American Sociologist*. Winter: 43-55.

The authors’ goals for the paper are to introduce some of the problems inherent in bringing researchers and subjects together in a practice such as collaborative research. While the authors note that such enterprises have often been successful, they also mention the tendency for a fitful, love-hate relationship to develop between members of the group, often due to the different perspectives and understandings they bring to the study. While some of these tensions are real, others are based on stereotypes held by one group against the other [1992: 43].

The key point is that “researchers have as yet been unable to find ways to contribute effectively to solving the ‘messes in the swamp.’ For community organizations, this means that the hard work of framing issues, picking targets, identifying needed language and metaphors, and obtaining needed data and research, occurs largely in ways outside of the realm of normal academic discourse” [1992: 53]. Part of the problem is bringing positivism’s “technical rationality” closer to the needs of social activism [1992: 53].

While this article is quick to point out some of the difficulties inherent in bringing academics down to the real world of application, the issue of knowledge transfer is less prevalent. The authors believe that collaborative research is a very promising step in the right direction. They also believe, however, that much has to be done to bring the collaborators into a more fruitful partnership. Their suggestions include reducing the amount of jargon in academic writing in order to make it accessible to the readers who are most likely to put it to use [1992: 50].

Park, Peter. (1992). “The Discovery of Participatory Research as a New Scientific Paradigm: Personal and Intellectual Accounts.” *The American Sociologist*. Winter: 29-42.

This article begins with a familiar definition of the nature of participatory research that is in line with the principles and practices described by other writers. There is also an account of the problems of positivism and a discussion of participatory research’s contribution to bringing positivism more in line with the human beings it studies in the social sciences. There is also some discussion of whether participatory

research could overthrow the current positivist paradigm. One important element discussed here is the fact that participatory research, given that it studies particular problems, tends to produce more contextualized, more applicable and more instrumental knowledge which may be of greater relevance and use to the people it is meant to help than the more decontextualized and distant language of the social sciences.

The important argument here is that social scientists must be reinstated (or must reinstate themselves) as members of the community they study: “We cannot continue to privilege social scientists as the purveyors of certified knowledge. We must instead regard them as members of communities, joined together with ordinary people, facing common problems of life. Any inquiry addressing these problems must, therefore, take seriously the participation of the community in inquiries concerning its problems” [1992: 40].

Peters, Michael and Viviane Robinson. (1984). “The Origins and Status of Action Research.” *Journal of Applied Behavioral Science*. 20 (2): 113-124.

The purpose of this paper is to identify two types of action research (also known as participatory research). The authors identify a weak version and a strong version, which share the following minimal requirements: “1) they both share the involvement-in-change characteristics – i.e., they are problem focused and directed toward the improvement of some existing social practice; 2) they share the organic process characteristics – i.e., research consists of a series of systematic cyclical or iterative stages of fact finding, reflection and planning, strategic action, and evaluation; 3) they share the collaborative characteristic – i.e., research is carried on as a joint, cooperative endeavor among the participants” [1984: 121].

The authors also state that the weak version is “not incompatible with other forms of social research” [1984: 121]. The strong version gives central importance to the actors’ “values, beliefs, purposes, and intentions, [strong] researchers will reject both the traditional separation of the ‘knower’ from the objects of knowledge and the associated thesis of neutrality that underlies ‘objectivist’ or positivist research programs” [1984: 121]. This is the root of the desire to form collaborative and direct relationships with the person studied, one that “emphasizes a dynamic and mutually determining relationship between the knowing subject and the object known” [1984: 121].

Ultimately, the chapter concludes that there has long been a divide between those in field work who espouse a view of people’s capacities (cognitive learning model) and the bureaucrats who take a control view congruent with the classical learning model. Because most Canadians were schooled in the latter, the process of community development takes time and patience.

Roberts, Hayden. (1979). *Community Development: learning and action*. Toronto: University of Toronto Press.

The author explores the connection between interpretations of learning that are relevant to community development. He sees community development as a “social process that emphasizes change in relationships”

[1979: 65]. Consequently, attention must be given to “individual learning that brings about, or is required for, behaviour whose effects will be a change in social relationships” [1979: 65].

According to Roberts, what is required in community development is a balance of learning among knowledge, attitudes and skills. Specialists and professionals are said to sometimes overemphasize the imparting of knowledge, while development workers may place excessive focus on affective learning. While different situations may require different mixes of these types of learning, all are required at some level or other.

Roberts discusses two major schools of learning theory: the conditioning theory approach associated with behaviourism and the cognitive theory perspective derived from gestalt psychology. According to Roberts, conditioning theory is generally evident in conventional teaching methods used with young children while cognitive theories are more evident in approaches to adult education. He also proposes that government bureaucrats are more inclined to think in terms of the stimulus-response ideas of behaviourism while community developers operate more from cognitive models of learning. In the conditioning approach, people are understood to be relatively passive respondents to positive and negative stimuli received from the external environment. In cognitive models, human beings are considered to be actively engaged in understanding their world and acting to shape it according to their ideas and interests.

For Roberts, community development is a slow process requiring commitment and patience in part because it takes time for people, schooled from a young age according to the stimulus response learning approach, to realize their ability to form their own interpretations and insights about their circumstances and act from that perspective.

Stoecker, Randy. (1997). “Are Academics Irrelevant? Roles for Scholars in Participatory Research.” Toledo: Department of Sociology, Anthropology, and Social Work, University of Toledo.

Stoecker’s article provides an account of the nature of participatory research and the need for social scientists to become more aware of the nature of their work and to realize that they are studying other human beings. In light of this, they should take stock of the opportunity for collaborative problem-solving. While Stoecker does illustrate some cases where academics are irrelevant to bringing about meaningful social action and change, he is not completely pessimistic about the role academics could play in such an endeavour: “Even in those cases where the academic is clearly not needed, you may be able to help simply by documenting the struggle so that others may learn from it... just don’t get in the way while you do it” [1997: 16]. Stoecker’s suggestions for academics who truly wish to help are: Be quick, listen, don’t just listen, participate, know the sources, use your priestly power for good, be creative, help people get ahead of the curve, and look to all your work for opportunities to help [1997: 17].

Williams, T.A. (1979). "The Search Conference in Active Adaptive Planning." *Journal of Applied Behavioral Science*, 470-483.

According to Williams, "the search conference was developed as a strategy for making operational the theory of active adaptation to turbulent environments. ... the design of the conference task embodies the logic of active adaptation while the social organization of the group expresses the principles of responsible participatory democracy" [1979: 481].

While this article includes a more expansive account of the nature, makeup and benefits of search conferences, which have "been appropriate for involving diverse groups affected by imminent developments in larger systems which include many stakeholders" [1979: 471], the key point related to community learning are the benefits to be found in uniting individuals with different perspectives in order to have them collaborate on a solution to a common problem. This is a reflection of, among other things, the "increasing interdependence in society" [1979: 471]. As the author puts it: "The primary purpose is to create the room and opportunities for the people affected by the change to play an active part in planning for that change" [1979: 472]. The other elements of the article (e.g., description of the search conference) are in line with the principles of participatory action research.

IV. *Applied Dissemination*

Canadian Centre for Studies of Children at Risk. (nd). Assorted Materials.

A package of materials from the Canadian Centre for Studies of Children at Risk focusses on work carried out to track the health of children and families in the Hamilton-Wentworth area, and to assess the impact of this work on community planners and decision-makers.

Keeping Score is a three-year social reporting project begun in 1997 with funds from the Atkinson Charitable Foundation. Its goals were to monitor the healthy growth and development of children and youth in the region, evaluate the use and impact of these reports, and develop recommendations on how best to produce a community-level monitoring system reporting on children, youth and families.

“Tracking the Use and Impact of a Community Social Report: Where Does the Information Go?” is a report published in 2000 to determine who reads and uses community reports [see *Canadian Journal of Public Health*. January-February: 41-45]. It summarized the work done by the Canadian Centre for Children at Risk and the Health Priorities Analysis Unit to find how well social reports are used to improve social conditions. It compared the recall and use of social reports sent to two study groups, one actively involved in social issues, the other an uninvolved, passive group.

Surveys found that 90 percent of the active group recalled the report compared to 21 percent of the passive group. Some 83 percent of the active group read and passed along the report; only 8 percent of the passive group did so. Eighty percent of the active group reported using the information, compared to 5 percent of the passive audience.

The study concluded that:

[I]f social reports are read by local community agencies and individuals, they will be used to help improve conditions for children and youth. Social reports at the local level are more likely to be read if potential users are engaged in the process of report production and if the reports are disseminated to the appropriate target audience [nd: 41].

The study also determined that researchers and the community must collaborate at all stages of a project and developers should examine the level of involvement and uptake that will result in maximum report utilization. Further, the authors pointed out that report distribution does not guarantee adoption or use of the information and that studies need to focus on how best to distribute reports and to whom.

A research proposal entitled: “Stakeholder Use of a Community-level Social Report on the Well-being of Children and Youth in Hamilton-Wentworth: A Descriptive and Exploratory Research Protocol” seeks to further understand who uses community reports, what types of information they are seeking and how such information results in change and improvement in the lives of children. The research is currently under way.

Canadian Health Services Research Foundation (CHSFR). (2000). *Health Services Research and... Evidence-Based Decision-Making*. June.

URL www.chsrf.ca/english/document-library/98-anreport_EBDM_e.pdf.

The 1997 Prime Minister's National Forum on Health defined evidence-based decision-making (EBDM) as: "the systematic application of the best available evidence to the evaluation of options and to decision-making in clinical, management and policy settings" [2000: 1].

Arising from the concept of Evidence-Based Medicine (EBM), both processes look at decision-making as the combining of facts and values to determine action. Clinicians and policy-makers come from two different orientations – clinicians care more about clarifying facts and less about the values (e.g., what type of patient should receive a heart transplant). Managers and policy-makers worry more about values (e.g., how a heart transplant decision is affected by religious beliefs). For the manager or policy-maker, it is more accurate to refer to "accountability to evidence in decision-making" [2000: 3]. Successful evidence-based decision-making, therefore, would rest on the recognition of the research and would be able to provide an explanation as to why the research findings were followed or not. This would grant "...a status for science in decisions that is at least equivalent to the current status of public or interest group opinion" [2000: 3].

Davis, Peter and Philippa Howden-Chapman. (1996). "Translating Research Findings into Health Policy." *Social Science and Medicine*. 43: 865-872.

This article discusses the paradoxical relationship between health care research and health care policy: "While there is scant evidence that research has had any impact on the direction or implementation of widespread health reforms, research on evidence-based medicine has dramatically increased, despite limited evidence that it has affected clinical practice" [1996: abstract].

Several models of influence exist, but the article points to a greater uptake of results when researchers involve managers and policy-makers in developing the research focus and framework and when they take some responsibility for seeing their work developed into policies. To be influential, research must be timely, locally-based, well-funded and done collaboratively.

The article concludes that: "Clear research findings are not always a passport to policy, but researchers can reframe the way health policy issues are seen, and collaboration with policy-makers initially can enhance implementation later" [1996: abstract].

Institute for Work and Health. (2000). *Infocus: Current workplace research – a supplement to ‘at work.’ Issue 16a, May.*

This newsletter supplement focusses on specific issues of interest to or research done by the Institute for Work and Health. In this issue, a study describing how workplace decision-makers use information that comes from outside their organizations showed a gap between workplace and research priorities.

Decision-makers use information with issues they are coping with right at the moment. Information that is behind the curve is seen as old news; information ahead of the curve also is disregarded. Scientists tend to want to review old situations and prepare for their return. Research based on this notion assumes a receptive, *tabula rasa* audience – an incorrect assumption. A disconnect exists between what research provides and what decision-makers use.

The major themes that emerge from this research for communicators are: “Be aware of what is salient to each sector, focus on solutions as well as problems, build on existing knowledge, and be aware that most decision-makers get their information through informal linkages and exchanges they have built with their peers and ‘experts’” [2000: 3].

J.W. McConnell Family Foundation. (1998). *Should You Sow What You Know?*
URL www.mcconnellfoundation.ca/sow.e/index.html.

This web document is presented as a primer for organizations seeking to develop dissemination projects with the assistance of a grant from the Montreal-based McConnell Foundation. The term “Applied Dissemination” refers to the process of both disseminating information about an existing program, process, concept or knowledge and skills, and applying that information in a different context

The authors have distilled research, experience and advice into a tool for prospective grantees. They present the Foundation’s funding criteria for an applied dissemination project, describe the players and outline some of the key steps involved in effective applied dissemination. They include a brief description of the four major types of information usually disseminated: concepts, processes, knowledge and skills, and programs.

Basic applied dissemination principles outlined include:

- *Timely*: Timing often has everything to do with where and when a particular initiative can be successfully disseminated and applied. Certain conditions can open the door (e.g., a perceived vacuum, a crisis or change in leadership), thereby greatly improving the odds of something new taking root.
- *Contributing value*: An applied dissemination initiative should contribute to a community’s well-being ‘over and above’ what already exists (e.g., added resourcefulness, quality, effectiveness, or benefit), or contribute a new way of addressing a common challenge.

- *Providing an element of choice:* Communities should be able to select among a range of choices to create their own local hybrid when appropriate.
- *Flexible:* While most applied dissemination initiatives will comprise both fixed elements (essential to the integrity of the concept, process, knowledge and skills, or program) and the variable/flexible elements that can be locally interpreted and applied, the initiative has to be pliable. Flexibility also implies a capacity to adjust to unexpected developments.
- *Responding to a high level of community motivation:* In addition to community choice, communities and individual citizens will be most receptive to new initiatives when they have demonstrated a predisposition to change, learn or adapt. Local enthusiasm is essential.
- *Proven:* Initiatives should be independently evaluated before they are disseminated. If there is only anecdotal evidence that they work, others will have little inclination to adopt them, or may adopt what subsequently turns out to be ineffective or inappropriate.

Using an analogy with agriculture, the Foundation lays out a process for proposal development that asks the following questions:

- What seed variety is to be disseminated and applied?
- How might the seeds be distributed?
- Who will be planting the seeds?
- What essential nutrients are required for the seeds to grow?
- What weather conditions could affect the growing season?
- What are the best tools and techniques to use?
- What is needed to tend the crop and reap the harvest?

Lomas, Jonathan. (2000). “Using ‘Linkage and Exchange’ to Move Research into Policy at a Canadian Foundation.” *Health Affairs*. 19 (3): 236-240.

URL www.projhope.org/HA/bonus/lomas.pdf.

The Canadian Health Services Research Foundation was created in 1997 to “facilitate evidence-based decision making in Canada’s health sector” [2000: 236]. Evidence-based decision-making requires better cooperation between researchers and decision-makers. The Foundation has adopted the philosophy of ‘linkage and exchange’ to increase the relevance and use of health services research.

A federal government one-time endowment was set up to foster a more “...scientific basis for decisions made by those running health services” [2000: 237]. About 60 percent of the funds allotted are disbursed as director grants supporting research and personnel; the remainder is used to disseminate the research and run the programs.

Two main audiences are served by the work done: health system managers and health system policy makers (practitioners are not part of the Foundation’s mandate). Research is conducted on access issues,

program design, resource allocation, organization of services, professional roles and other topics of interest to managers and policy makers.

Collaboration was found to yield important benefits. Bringing researchers and decision-makers together has shown a quicker resolution of conflict and increased likelihood of consensus, and has proven itself to be the most effective way to transfer research.

Linkage and exchange between researchers and decision-makers is encouraged through a series of efforts:

- a. Every three years, the Foundation calls both groups together to forecast areas of concern and establish areas for foundation support.
- b. Half of the research funds are paid by the federal government, half by provincial sponsorship. This sharing arrangement encourages ownership of the results and promotes partnership between the two groups. Co-sponsorship motivates all parties to collaborate in priority-setting exercises and allows provincial participants to have access to 90 percent of the health services researchers in the country.
- c. Applications for research are assessed by a merit review panel with equal representation from the two groups, thus alleviating the traditional bias toward methodological purity over utility. Scientific merit and potential impact are the explicit criteria, with a greater emphasis on impact. Panel members see themselves in an educational role and provide feedback and assistance to applicants to help improve methodology. Some 15 percent of projects are in this 'bring-up-to-standard' category, thus encouraging university researchers and decision-maker organizations to apply.
- d. Funding requires that the investigative team has at least one decision-maker actively involved in either management or policy in the area under study [2000: 237-239].

National Center for the Dissemination of Disability Research. (2001). *Developing an Effective Dissemination Plan*. January. URL www.ncddr.org/du/products/dissplan.html.

This article begins with the premise that dissemination is a planned process, not the simple delivery of documents from point A to point B.

Messages must:

- be oriented toward the needs of the user, incorporating the types and levels of information required into the forms and language preferred by the user.
- use varied dissemination methods, including written information, electronic media and person-to-person contact.

- include both proactive and reactive dissemination channels – i.e., they incorporate information that users have identified as important, and they include information that users may not know to request but that they are likely to need. Clear channels are established for users to make their needs and priorities known to the disseminating agency.
- recognize and provide for the ‘natural flow’ of the four levels of dissemination that have been identified as leading to utilization: spread, exchange, choice and implementation.
- draw upon existing resources, relationships and networks to the maximum extent possible while building new resources as needed by users.
- include effective quality control mechanisms to assure that information to be included in the system is accurate, relevant and representative.
- include sufficient information so that the user can determine the basic principles underlying specific practices and the settings in which these practices may be used most productively.
- establish linkages to resources that may be needed to implement the information – usually referred to as technical assistance [2001: 2-3].

The authors suggest that organizations develop their own dissemination policies to further improve the spread and use of the information they are providing. Such a plan should identify ten key elements:

1. *Goals:* Determine and document the goals of your dissemination effort for your proposed project.
2. *Objectives:* Associate each goal with one or more objective that clarifies what you are trying to accomplish through your dissemination activities.
3. *Users:* Describe the scope and characteristics of the ‘potential users’ that your dissemination activities are designed to reach for each of your objectives.
4. *Content:* Identify, at least, the basic elements of the projected content you have to disseminate to each of the potential user groups identified.
5. *Source(s):* Identify the primary source or sources that each potential user group is already tied into or most respects as an information source. Consider ways to partner with these sources in your dissemination efforts.
6. *Medium:* Describe the medium or media through which the content of your message can best be delivered to your potential users and describe the capabilities and resources that will be required of potential users to access the content for each medium to be used.

7. *Success*: Describe how you will know if your dissemination activities have been successful. If data is to be gathered, describe how, when and who will gather it.
8. *Access*: Describe how you will promote access to your information and how you will archive information that may be requested at a later date. Consider that most people will use your project-related information when they perceive a need for it – not necessarily when you have completed your research project.
9. *Availability*: Identify strategies for promoting awareness of the availability of your research-based information and the availability of alternate available formats.
10. *Barriers*: Identify potential barriers that may interfere with the targeted users' access or utilization of your information and develop actions to reduce these barriers [2001: 5-6].

A strategy for adopting the plan must relate to “ensuring that your dissemination efforts produce utilization” [2001: 10]. This includes allotment of staff time and budgetary resources.

The website offers further advice on timing, training, resources and references.

National Center for the Dissemination of Disability Research. (2000). *Guides To Improving Practice, Number One – Improving Links Between Research and Practice: Approaches to the Effective Dissemination of Disability Research*. URL www.ncddr.org/du/products/guide1.html.

This information guide is designed to help disability researchers access the information they need to strengthen dissemination efforts. A paradigm shift has occurred in that most dissemination practices are still based on a mechanistic, linear conception of dissemination as a process of ‘getting the word out.’ New understandings of learning theories have changed the basic understanding as to how dissemination works, giving rise to new ways of linking research and practice.

Now the intended users of research are recognized as the most critical element in dissemination. “This casts the user as an active problem-solver and a constructor of his or her own knowledge, rather than as a more passive receptacle of information and expertise” [2000: 3].

The evolving understanding of how people learn teaches that people and organizations develop the energy to change when faced with real pain. “When old ways do not seem to be working as well as they should, when current explanations cannot account for a new circumstance, when the status quo is no longer comfortable, these are times when real change in understandings and behavior are possible” [2000: 4].

Experience teaches that:

1. The actual quality of research is less important, in terms of the likelihood of its getting adopted and used, than the extent to which it fits with users' established beliefs and experience.

2. The source of information about research outcomes is also more important than the quality of the research. People tend to trust sources with whom they have established relationships.
3. The credibility of information sources relates to two factors: perceived expertise and perceived trustworthiness. The more intensely people are involved with an issue, the more likely they are to question both the expertise and the trustworthiness of those whose information contradicts their own understandings.
4. When research does get used, the resulting practices, programs or products are often quite different from the researcher's original conception.
5. People cannot always be relied upon to make decisions that appear, by external standards, to be in their own best interests [2000: 2].

The authors conclude that dissemination is not synonymous with publication. They counsel organizations to know their intended user audiences and make sure the audience knows them. To make this happen, they suggest that organizations:

- Begin by thinking carefully about whom your intended audiences are; make a list of potential users.
- Assess what you know about each target user group, particularly their resources, their priorities and any concerns they may have about the research topic you plan to address.
- Supplement your own understandings by collecting information about each user group. Involve users in research and development activities. This will: 1) increase the chance of obtaining outcomes that are relevant to user needs, 2) improve your credibility with target audiences and 3) find ways of disseminating your results that communicate effectively with intended users.
- Build relationships. The research on knowledge utilization indicates clearly that users rely on the information sources they already know and trust, and that personal interaction and building links with intermediaries are important components of a dissemination plan.
- Consider the audience size – develop a dissemination plan that delineates several levels of target audiences: a small group targeted for in-depth, interpersonal assistance and larger groups targeted for broader information-sharing strategies.
- Don't make assumptions about people based on their readiness to change.
- Keep in mind that resistance to change is not necessarily a negative circumstance. Never underestimate your audience's grasp of an issue or its capacity for making improvements; never make judgments based solely on an individual or group's reluctance to adopt your particular point of view [2000: 4-6].

National Center for the Dissemination of Disability Research. (2000). “Guides To Improving Practice, Number Two – Improving Links Between Research and Practice: Approaches to the Effective Dissemination of Disability Research.” URL www.ncddr.org/du/products/guide2.html.

This portion of the organizational user’s guide is devoted to the four major elements of an effective dissemination plan:

1. the *dissemination source* – i.e., the agency, organization or individual responsible for creating the new knowledge or product, and/or for conducting dissemination activities
2. the *content* or message that is disseminated – i.e., the new knowledge or product itself, as well as any supporting information or materials
3. the dissemination *medium* – i.e., the ways in which the knowledge or product is described; ‘packaged’ and transmitted
4. the intended *user* of the information or product to be disseminated [2000: 2].

In the author’s view, the importance of building relationships among researchers and linking agents and potential users cannot be overestimated. Suggestions for facilitating this process include:

With respect to source:

- Keep your dissemination audience small.
- Work through intermediaries who already have established relationships with intended users.
- Pay attention to your own assumptions and biases.

With respect to content:

- Focus on ‘the real world of practice.’
- Worry about the kinds of information you disseminate.
- Speak your users’ language.

With respect to medium:

- Match the medium to the user.
- Remember the primacy of personal interaction.
- Use multiple media.

With respect to user:

- Know and address the user’s context and concerns.
- Pay attention to the user’s ‘readiness to change’ [2000: 2].

National Center for the Dissemination of Disability Research. (1997). *Dissemination, Utilization, and the NCDDR*. URL www.ncddr.org/du/products/ncddrdu.html.

A series of forums held in 1991 by the National Institute on Disability and Rehabilitation Research (NIDRR) found a “continuing need to move research and information from those who generate it to the user and the service provider in a form that has direct and immediate application” [1997: 1].

This article describes the critical distinction between availability and accessibility of information. Availability refers to how easily a person might obtain a copy of an article, while accessibility “implies ease of access and simplicity of comprehension and use” [1997: 1].

The authors contend that poor accessibility exists because of the lack of communication and cooperation between researchers and their intended audiences.

Basic principles of information dissemination are presented:

- Dissemination and distribution are not the same.
- Dissemination requires a careful matching of information and user.
- The purpose of dissemination is the utilization of information.
- One of the most effective ways to increase utilization is to involve potential users in the planning and implementation of the research design.
- Effective dissemination is critically linked to its timeliness and comprehensiveness.
- Effective dissemination is not an ‘end activity’ that occurs after research is completed.
- Dissemination requires personal intervention and support in order to achieve utilization.
- Recipients of government-funded research funds have a responsibility to effectively disseminate their results [1997: 2].

An effective dissemination plan will define:

- the user or the intended user, of the information or the product to be disseminated.
- the dissemination source – i.e., the agency, organization or individual responsible for creating the new knowledge or product and/or for conducting dissemination activities.
- the content or message that is disseminated – i.e., the new knowledge or product itself as well as any supporting information or materials.
- the context in which the knowledge or product is developed and disseminated.
- the medium – i.e., the ways in which the knowledge or product is described, ‘packaged’ and transmitted [1997: 2].

The authors conclude that: “A clearer understanding of the meaning of research findings will be produced by involving the intended user group(s) in the planning and implementation of NIDRR research projects. Supporting this effort, NIDRR has adopted an official policy statement concerning Participatory Action Research (PAR)” [1997: 4].

Peterson, Mark A. (1997). “The Limits of Social Learning: Translating Analysis into Action.” *Journal of Health Politics, Policy and Law*. 22 (4).

This article asks how public policy-making reflects social learning. The author feels that a process of social learning is embedded within the policy-making process and is dependent on constitutional context, technological change and political influences. His model differentiates between the structural and the social learning effects of policy legacies.

Social learning is further divided into substantive and situational learning. The effects of these on policy are dependent on the relative positions taken by experts, organized interests and politicians as well as on the scope of the issue under consideration.

The author concludes that recent health care policy decisions reveal that social learning is "...often a decidedly political struggle over ideas and information in which advocates promote lessons that serve their specific interests within a given institutional context and political setting" [1997: abstract]. The implications of social learning will help explain policy responses to the rise of market forces in health care.

Westbrook, John and Martha Boethel. (1997). *General Characteristics of Effective Dissemination and Utilization*. National Center for the Dissemination of Disability Research. URL www.ncddr.org/du/products/characteristics.html.

This article recognizes that the goal of dissemination is utilization or implementation of effective program strategies, and that achieving this goal relies on an understanding of the dissemination process. To that end:

- the information provided must include details of content, context and resources needed before implementation can be planned in sufficient detail.
- the individual needs of information users will vary according to the levels of use and stages of personal concern demonstrated.
- information users will more effectively implement change if they understand the process and the flow of activities that will be involved.
- programs and practices must be adapted to meet the particular needs of each individual organization.
- all parties involved in the utilization or implementation process must be able to contribute to planning.
- users will accept assistance, information and ideas from sources they believe to be credible and trustworthy.
- the utilization process requires time and support from beginning to end. It also requires personal involvement; outside organizations must provide some level of in-person support, including follow-up and ongoing feedback and exchange [1997: 2].

Effectiveness requires the disseminator to be aware of how the user, source, content, context and medium are configured and how they will directly influence utilization. According to the authors: "Information alone generally is not enough to assure that a new approach will be implemented successfully and in ways that meet the unique circumstances of each specific user. Technical assistance – in the form of consultations, specially tailored materials and information, training and/or demonstrations – is usually needed to help adapt strategies and to address the barriers involved in the implementation process" [1997: 3-4].

Successful dissemination requires an organizational awareness. This means:

- the entire organization's needs are considered in planning the implementation of new programs or strategies. Goals for target unit(s) and the entire organization are integrated into one comprehensive plan.
- administrators, managers and direct service staff persons are all involved in planned activities. Management involves staff members in shaping changes for implementation.
- a written plan, detailing the who, what, when, where and how much of technical assistance activities, is developed and signed by the major parties involved.
- measurable outcomes are identified before technical assistance and implementation activities are begun and the methods of long-term data collection and evaluation are determined.
- open, ongoing and integrated interactions between the community and organization are used to assess implementation activities.
- technical assistance is perceived as a routine method to stimulate growth, development and improvement; technical assistance is viewed as a part of a larger set of activities aimed at meeting the organization's goals and objectives.
- the technical assistance provider uses a variety of activities to assist with implementing the new program or approach [1997: 4].

V. Community-Based Initiatives for Early Childhood Development

Atkinson Charitable Foundation. (2000). *Our Promise to Children: Community Mobilization Tour in Ontario, 1998-99*. Toronto.

The purpose of this 12-community tour was to raise the level of awareness about the importance of investing in child development and to increase local collaborative action. It emerged from the publication of *Our Promise to Children* and was sponsored by the Atkinson Charitable Foundation, the Founders' Network of the Canadian Institute for Advanced Research, the Centre for Studies of Children at Risk and Air Ontario. The goal of the tour was to learn more about how to reach, support and engage community groups interested in strengthening community efforts to improve child development outcomes.

The 12 communities were pre-selected based on their interest, level of need or history of involvement. Advertised through the Ontario Coalition for Better Child Care and the Ontario Association of Children's Aid Societies, the project worked with a local organizer to develop key meetings and events, and to provide follow-up in the form of return visits, sending follow-up materials and telephone advice.

The project observed that although there is a lot of interest in learning more about how to nurture early childhood development, the current patchwork of services and programs is able to treat problems only after they occur. It concluded that a new way of perceiving community services and family support is required and that resources and investments need to be reorganized and reprioritized. In addition:

- leadership is needed at the government and political level, and communities need local champions to create a vision, build trust among partners and move the agenda forward.
- high levels of trust must exist in the community (avoiding turf battles or rebuilding after they're over).
- Community collaboration is critical and cross-sectoral approaches work better than categorical programs.
- society must value children and parents.
- adaptable universal programs help reduce inequities and stigmatization [2000: 43-44].

Bronstein, P.J. and J.M. Sweig. (1999). "Understanding Substance Abuse Prevention: Toward the 21st Century: A Primer on Effective Programs." U.S. Department of Health and Human Services Publication No. (SMA) 99-3302.

This document describes eight successful High Risk Youth drug and alcohol abuse prevention programs funded by the Center for Substance Abuse Prevention's Demonstration Grants Program. Program reviewers looked for the quality of program intervention, implementation, evaluation rigour, and the positivity and consistency of findings.

Since it was established in 1986, the Center has played a leadership role in the development of substance abuse prevention theory, programming and knowledge application. In 1994, the Center launched a High Risk Youth Databank to organize, extract and code program information.

Included among the approaches used by the projects were six prevention strategies developed by the Center: *information dissemination* about issues related to alcohol, tobacco and illicit drug use and abuse; *prevention education* which taught participants critical life and social skills; *problem identification and referral* to direct youth who already have tried drugs or developed substance abuse problems to appropriate treatment options; *community-based interventions* that aim to enhance the involvement of existing community resources; *environmental interventions* to change the standards, policies and attitudes that influence systemic as well as individual substance-related problems [1999: 5-6].

Three characteristics of a successful program were determined. They promoted supportive and caring relationships between youth and members of the families, communities and peer groups. They used multifaceted interventions that targeted the specific needs of their audiences. Finally, they were successful in postponing the onset of drug, tobacco and alcohol use; they reduced risk factors and strengthened the protective factors related to the development of substance abuse [1999: 7].

Buyse, V. et al. (1999). "Community Development Approaches for Early Intervention." *Topics in Early Childhood Special Education*. 19 (4): 236-243.

This article reviewed a project which used a "...community development framework to implement change in early care and intervention services in two culturally diverse communities" [1999: 236]. The project emphasized two aspects of community development, namely the change process (which involves creating a community planning team to identify and implement change strategies) and empowerment theory.

By definition, community development "...offers a process for implementing change with respect to shared decision making with parents and other community members" [1999: 236]. The process involved forming a team, defining community needs and resources, defining the vision or goal, developing change strategies and evaluating the outcomes related to change efforts.

A Native American community and a Latino community, both in remote areas of North Carolina, were selected as study groups. Both had requested assistance in developing early care strategies and both were in areas where existing organizations had expressed an interest in working collaboratively.

Key challenges involved building relationships among the various stakeholders. As the paper notes: "Tensions often center around project staff relinquishing power but retaining some authority in project activities; building trust and mutual respect with community members who have had their trust and respect violated in other encounters; representing the community in appropriate ways; working through community structures and processes that work quite differently from those of the universities and service organizations outside the community; and instituting full collaboration with community representatives while meeting time limitations and regulations of the funding agency" [1999: 241].

Four key results were identified:

1. Parents and human service professionals, by working together, learned about the issues and challenges each other faced, thus forging new relationships.
2. Parents who become involved develop stronger voices and played more leadership roles related to child care and early intervention.
3. Project-sponsored events served as a springboard for additional community initiatives identified by community members.
4. Community members exhibited an increased awareness of community needs and resources related to child care and early intervention [1999: 239-241].

The project concluded that relationship-building was important but should be seen as the first step in a longer-term process: “Forming collegial partnerships with parent consumers at the local level is a good beginning, but genuine empowerment to achieve lasting community change must eventually involve parent participation in political and decision-making bodies” [1999: 242].

Buysse, V. and P. Wesley. (1996). “Supporting Early Childhood Inclusion: Lessons Learned through a Statewide Technical Assistance Project.” *Topics in Early Childhood Special Education*. 16(4): 476-500.

This article describes a statewide technical assistance project offered through North Carolina’s Partnership for Inclusion project. Partnership for Inclusion helps communities develop and coordinate inclusive services for young children with disabilities and their families. The article outlines factors that influenced the model’s development and strategies for promoting systems-level change that supports early childhood inclusion.

In this project, various state agencies blended their funds. State-level collaboration was seen as a milestone for early childhood inclusion and the key ingredient for this project’s success. Partnership for Inclusion uses three regional technical assistants and a director. An advisory board helps staff members understand family and program characteristics and how the broader community affects the outcomes of early childhood inclusion.

Services are shaped by “...the preferences of families and the availability of resources; the community’s history of services and interest in inclusion; and the unique cultural characteristics of diverse communities” [1996: 3]. This program does not involve a one-size-fits-all approach. Participants understand that “...lasting change in specific communities will stem from variety in innovation alternatives and flexibility that allows the TA [technical assistance] and client system to adapt to each other” [1996: 3].

Partnership for Inclusion has found that active participation of parents and consumers is one method of ensuring that services are designed and delivered to meet the community’s needs. The parents-as-models is one strategy that will be developed further. Work with teachers identified a greater need for assistance with limb functioning, behavioural problems and severe disabilities. Future community forums will explore mechanisms for providing individualized consultation and support to child care teachers.

Recommendations stemming from the project are:

1. Effective technical assistance is based on the principles of planned change, organizational development and consultation, not learning theory alone.
2. Catalysts for change are most productive when they are perceived as co-equals by those they hope to influence.
3. The technical assistance approach must recognize community personalities and vary its services to meet diverse client expectations. The program benefited by having access to a university and its research.
4. Technical assistance activities should promote local control and capacity building through broad community involvement.
5. The system must offer technical expertise, but also respect and challenge local stakeholders' values, beliefs and leverage potential.
6. Parent participation is an important ingredient – parents become catalysts for change.
7. Technical assistants should invite collaboration with researchers to test theories and develop new technical assistance models. "...[T]he unique combination of external expertise and stakeholder involvement – the link between research and practice – is perhaps the most overlooked formula for effecting successful innovation and system-level change" [1996: 9].

**Children Now. (1998). *Right Time, Right Place: Managed Care and Early Childhood Development*.
URL www.childrennow.org/health/rightplace/index.html.**

This article makes the case that the United States needs an institutionalized approach to early child care, similar to the educational institution which brings families, children and community together. It is proposed that managed care organizations can play this role.

The report identifies two critical goals that will help deliver early childhood development services in a managed care setting as well as a series of strategies for carrying them out:

Goal 1 – Create an early childhood development infrastructure – creating a benefits package with appropriate personnel and services.

Strategies:

- Incorporate developmental specialists into pediatric primary care settings.
- Include family advocates as part of the well-child care team.
- Offer universal, voluntary home visiting for families with newborns.
- Offer group well-child visits.
- Use questionnaires prior to a child's visit to identify parenting concerns.
- Provide temperament assessment and follow-up services.
- Provide access to child development support through a telephone system.

Goal 2 – Provide a seamless system of early childhood development services that forges links within the managed care organization and between the managed care organization and the community.

Strategies:

- Begin parent education in the prenatal period.
- Ensure scheduling of the first well-child visit prior to hospital discharge and follow-up as needed.
- Encourage all health care providers and administrative staff to promote key child development messages.
- Link community and social supports to pediatric primary care.
- Establish a system for referral follow-up.
- Coordinate with state and community health services.

Children Now has developed a strategy to implement this work. Called an Early Childhood Development Monitoring System, it includes creating an Early Childhood Work Group (with health care administrators, providers and families), data collection mechanisms and reporting to membership about progress and next steps.

Connecting the Dots for Boston Tots. URL www.carnegie.org/startingpoints/boston.htm.

Beginning in 2000, the Department of Health and Hospitals through the Family Nurturing Center at Boston Hospital were to begin a program to promote the healthy development of young children and their families in two of the city's most disadvantaged neighbourhoods.

Center staff were to collaborate with partners to establish neighbourhood working groups, develop policy agendas and strategic plans and implement programs to nurture families and encourage effective parents. The Health Department's FIRST LINK project was to be expanded to a second hospital, providing centralized data collection and screening of birth certificates for all newborns. Several other community projects and services also would offer a variety of enrichment and educational opportunities for families.

Community residents' and providers' information was to be available on an easily accessed information catalogue created by the City's Department of Public Health, the City's Management Information Systems Department and the Boston Foundation's Persistent Poverty Project.

Heflinger, Craig Anne. (1996). "Implementing a System of Care: Findings From the Fort Bragg Evaluation Project." *Journal of Mental Health Administration*. 23 (1): 16-30.

The Fort Bragg Child and Adolescent Mental Health Demonstration (referred to as the Demonstration) was used as a test case to provide program-level information for cost and outcome studies as part of an overall evaluation project. The Demonstration "...was designed to test 'the efficacy of a Federal and State contract for providing a case management-based alternative delivery system of mental health services tai-

lored to individual patient needs featuring the use of a full continuum of community-based services” [1996: 2].

To properly explore the implementation of a program, underlying theories and assumptions were examined, the program-as-implemented was compared to the program-as-planned, and barriers responsible for diluting full-scale implementation were documented.

Based on the participant evaluation component, the Demonstration was found to deliver high-quality mental health services to children and youth, improve treatment outcomes for children and youth, and develop a service system that provides the full continuum of community-based services to children.

A number of barriers to successful implementation were identified:

1. The contract disallowed the individual treatment of anyone over age 18, meaning that parents’ treatment had to be split among multiple providers, thus forcing a compromise of the principle of family-focussed treatment.
2. Parent involvement was seen as crucial for treatment success, but many were unable or unwilling to become involved.
3. There was a lack of professionals with training in brief intervention modes of treatment.
4. The differences in service philosophies between the Army (little intervention, fewer dollars on specialized services at the front end) and the Demonstration (individualized, holistic) created friction and underlined the need to reach a compromise in future programming [1996: 3].

Despite these difficulties, the Demonstration was deemed a success:

The measures of system process were highly positive at the Demonstration. Not only was the planned implementation achieved, but the consumers of the service responded with higher ratings of satisfaction. ... Finally, paying attention to relationships at the inter-organizational level can pay off for program administrators. ... Promoting open communication channels and a shared vision can enhance implementation efforts [1996: 10].

National Civic League. (1998). *Building Communities that Strengthen Families*. Denver, October.

This magazine-style publication presents a variety of community development projects from cities across the United States that are aimed at helping families deal with the changing social and political realities in our society. Building stronger communities to address social problems means supporting families and responding to their needs for information, programming and help.

Organizations like Community Organizing and Family Issues in Chicago are helping parents to link with schools, building relationships and developing the notion of school as community hub. The goal of such organizations is to improve ties between public officials and community networks. Successful pro-

grams developed along these lines have helped keep children out of institutional settings by establishing programs in neighbourhood locations.

The Multnomah County, Oregon “Caring Communities” program began as a roundtable discussion into the problem of early school leaving, and has developed into a broad-based vehicle for getting communities involved in designing services and determining budget priorities. The notion of creating webs of service rather than isolated programming decisions governs much of the community development work highlighted.

Leadership and advocacy are discussed as keys to the continued process of community building. Public officials in Multnomah County have set benchmarks for measuring the success of public agencies, challenging organizations to strive for better results while keeping their work on the local agenda. Work in Tallahassee, Florida, on the Kids Count program has helped that community to define and improve living conditions for poor children. Nonpartisan family advocates have helped move family issues into the spotlight, and politicians are beginning to see the benefits of working with diverse groups for the betterment of all.

National Civic League. (1997). *Communities that Strengthen Families*. Denver: National Civic League, October.

This magazine-style publication highlights work promoted by the National Civic League’s Alliance for National Renewal and funded by the Annie E. Casey Foundation in the United States.

The articles focus on community projects that bring together private and public organizations and local residents to improve living conditions and life options. Each program uses funds from private foundations to begin the process of community development, with the hope that as the programs grow and flourish, other funding options will be found.

Each story rests on the notion that future health will be determined by how well institutions and individuals are able to work toward a new paradigm of inclusion and cooperation.

Several online sources are listed at the back of the magazine, including the KIDS COUNT project that has developed measures for the educational, social, economic and physical well-being of children (www.kidscampaigns.org).

National Council of Juvenile and Family Courts Judges. (nd). “Juvenile Violence Prevention and Intervention.” URL www.ncjfcj.unr.edu.

This article provides an overview of crime prevention strategies and programs for children and families from before birth to age 21. A preliminary discussion of the principles of effective prevention and intervention stresses the importance of creating a web of interconnected social agencies and child-focused

institutions. Intervention is seen as a continuing, positively directed activity that builds on children's capabilities rather than their deficits.

Strategies for prenatal and perinatal prevention include prenatal care, family intervention in cases of maternal substance abuse, and home visitation and parenting training. In the birth to age 4 stage, strategies are aimed at training parents to manage early aggressive behaviour, improving family bonding and providing services in disadvantaged settings. In the learning readiness and social competence 4- to 6-year-old range, programs which encourage cognitive stimulation and social skills training are added to continuing parent education, with a renewed focus on nutrition and health care.

The remainder of the article discusses strategies for older children and youth. It also presents an overview of the American court system's philosophy of care and treatment for troubled children and youth.

Onyskiw, J. et al. (1999). "Formative Evaluation of a Collaborative Community-Based Child Abuse Prevention Project." *Child Abuse and Neglect: The International Journal*. 23 (11): 1069-1081.

In 1994, the Children's Health Centre of Northern Alberta (now the Capital Health Authority – Children's Health Centre) proposed a demonstration project to integrate existing services and explore new approaches to preventing child abuse and neglect. Planned as a three-year project to be launched in two Edmonton communities, it was supported by various agencies in the health, social services and law enforcement sectors. This article describes the program and its outcomes.

The program used a site-based model of care, but home visits were also available. A ten-member multidisciplinary team was set up to provide programming, based on the needs and requests of the parents involved. These included parent education and support groups, child abuse prevention programs, communication/self-esteem programs for school-age children and peer support groups for junior high school students.

An outside professional conducted a formative evaluation during the project's second year. Seventeen clients were chosen to represent the demographic characteristics of the community. Two team members had left the program; the remaining eight participated in the evaluation.

The goal of the evaluation was not to generalize its conclusions, nor did it include a test of the efficacy of the interventions. It highlighted certain aspects of the project from the perspective of clients and team members that were beneficial. During the 18 months of operations, the project served a total of 175 families. The evaluation found that clients appreciated the multidisciplinary nature of the team, the accessibility of services, the parent education and support programs, the informal support they received from one another and from the team members, and the program's client referral and advocacy supports.

Clients felt that community services should be better advertised through local newspapers, school newsletter, community posters and door-to-door flier distribution. Additional professional staff, including access to child psychologists and lawyers, were viewed by clients as important additions to the team. Parents also wanted to see informal support groups established and they were keen to find ways to attract fathers to

the parenting groups. Consistency in staffing was also an area that clients wanted to see improved. It takes time for troubled families to develop trust and establish relationships.

“Parents and Children, Winners: Five Promotion and Prevention Projects.” (1992).

This collection of stories presents four Quebec projects aimed at improving the quality of life for young families. (The fifth project is missing from the collection. The project’s name is Connexion, and it operated in Saint-Jean-sur-Richelieu.)

Story 1: Familles gardiennes de la basse-ville, Québec

Poor mothers are offered respite and support through a child care service. The program offers short-term respite for mothers and allows the development of long-term community support and mutual aid. Mothers could call the service and arrange for care for two to 15 days, 24 hours a day. Users were asked to contribute \$1 per day. Caregivers and users were offered group meetings for mutual support and training.

The initial start-up grant has run out, but the families secured another funding source. The program has been modified somewhat to meet the new funder’s requirements and the program now operates under the name *Parents répit inc.*

Story 2: La maison des parents, Montréal

This house was the dream of a group of Montreal parents who wanted an actual house where they could use their creative talents to develop programs to help improve family functioning. Established in 1983 by the *Carrefour Québécois des Travailleurs de la Famille*, a core reception team began consulting and involving as many parents as possible. This process laid the foundation for the house’s success.

Story 3: La parentèle, Laval

This project used four institutions to counter the effects of child neglect. *La parentèle* now operates as an autonomous program run by members of the community. To counter the poverty and social isolation that cause neglect, mothers were offered the chance to become involved in a short-term parent-child day care centre. Collective activities allowed the mothers to share services and resources. Over time, *La parentèle’s* activities made the community more aware of its quiet poverty and participants have become more involved in assisting community organizations offer help to families in need.

Story 4: Les scientifiques, Montréal

Under the cover of recreational science activities, this project seeks to prevent the deterioration of the living conditions and personal development of girls between 9 and 12 years of age who are growing up in a socioeconomically underprivileged environment.

Savaya, Riki and Mark Waysman. (1999). “Outcome Evaluation of an Advocacy Program to Promote Early Childhood Education for Israeli Arabs.” *Evaluation Review*. 23 (3): 281-303.

A coalition-based advocacy initiative in Israel sought to promote three goals: increase the number of Arab children enrolled in preschool programming, increase the number of preschool classes administered by local councils and increase the number of certified preschool teachers working in the Arab sector.

The intervention model that was developed involves two main groups acting concurrently over a ten-year period. One group was an independent task force made up of a coalition of organizations. This group was responsible for setting specific goals of intervention, selecting intervention strategies and implementing those strategies. The second group was composed of the capacity-building branch of a philanthropic organization. These people established a task force, collected information on the problem, provided policy analysis, coordinated activities, consulted and supported the task force coordinator, and provided physical infrastructure and technical service. The task force coordinator was a member of both groups and acted as a link between them.

Over the ten years, data were collected from 32 of the 44 participating towns to determine progress toward overall goals. The results found that all three goals were achieved.

Simpson, Ann. (1999). *KIDS COUNT: Partner for Children’s Health and Living*. Ottawa: Caledon Institute of Social Policy, July.

In 1992, the London public school system’s recently appointed Director of Education began a process of inquiry to address the health and learning needs of children in his community. A Compensatory Education Task Force investigated the obstacles to learning posed by poverty. Made up of teachers, principals, trustees, superintendants, social workers and parents, they surveyed parents and children and founded the KIDS COUNT concept of neighbourhood groups developing their own solutions.

The principal created strategic partnerships, involving the municipal, provincial and federal governments, and community organizations. They agreed to provide funding and several network members worked on a Resource Steering Committee to help locate and access additional resources. KIDS COUNT relies on four key principles. It is neighbourhood driven. It uses existing resources. It tries to bring about sustainable changes. It builds local leadership.

Many specific initiatives are supported through a partnership with a local agency or member of the Resource Steering Committee. Activities include: youth groups, youth leadership training conferences and participation in a leadership camp, street-proofing programs, book-in-a-bag reading programs, homework clubs, breakfast programs, parenting groups, community social events and a KIDS COUNT Transit Commission bus decorated to advertise the program and to provide lower-cost transportation to neighbourhood initiatives.

Program evaluation found a high level of partnership satisfaction and an increased sense of community involvement in problem identification and solution. Three keys to successful program development identified were: neighbourhoods where little else existed in the way of programs or services; a parent population from relatively stable, income-secure homes; and supportive school staff.

UNESCO. *Culture in the Neighbourhood*. URL firewall.unesco.org/culture/pluralism/neighbourhood/html_eng/index_en.htm

During the World Decade on Cultural Development (1988-1997), the Swiss National Commission for UNESCO developed the Culture in the Neighbourhood project as a way to assess the impacts of globalization on culturally diverse urban neighbourhoods and to foster dialogue between international communities. Residents carry out cultural activities and report on the results to communities in Africa and Europe.

The project has grown beyond its original design and ten-year mandate and is currently based on four African-European partnerships. Projects are meant to improve everyday life in the community, increase community participation and facilitate getting to know people from other cultures. Other project aims are to help adjust traditional identities, solve cultural conflicts, prevent children dropping out of society and prevent the loss of talent by increasing new jobs for young artists and educators.

The African and European partners adopt a theme and define a cultural project, varying implementation procedures according to local situations and interests. A Local Project Group coordinates the work under the guidance of a National Coordinator. UNESCO and the National Commissions for UNESCO oversee the projects at the international level. Annual meetings, field operator exchanges and international conferences ensure project coherence. A twice-yearly newsletter from the Swiss National Commission helps keep all parties informed.

Yoe, James T. et al. (1996). "Wraparound Care in Vermont: Program Development, Implementation, and Evaluation of a Statewide System of Individualized Services." *Journal of Child and Family Studies*. 5 (1): 23-39.

In the mid-1980s, a shift in mental health care for children and adolescents saw a movement away from restrictive treatment options toward the development of comprehensive community-based systems of care designed to keep the most challenging children in their homes, schools and communities. This resulted in an intensive case management system known as 'wraparound care.'

In 1991, the state of Vermont mandated interagency coordination and collaboration in the delivery of services to children and adolescents experiencing severe emotional or behavioural disturbance and to their families. This led to the creation of the Vermont Wraparound Care Initiative. More of an approach than a model, it is characterized by child and family focussed treatment, strength-based versus problem-oriented perspective, unconditional care, individualized service planning tailored to specific needs and strengths, community-based care, noncategorical flexible funding strategies, an interdisciplinary team approach emphasizing interagency collaboration and coordination, proactive planning for crises and respect for family culture and values. An evaluation and tracking system were put in place alongside the program in 1991.

Local interagency teams were established in 12 districts. Each was to provide multidisciplinary decision-making in situations where local providers, parents or educators were unable to develop or implement a child's treatment plan. The program's operation rested on a delivery vehicle known as the 'therapeutic case management program, in which a case manager provides ongoing unconditional support to the child, family and care team.

Evaluation results indicated that 90 percent of the 40 youth involved in the evaluation remained in the community; 40 percent were living either with a family member or independently. All of these children were at risk of being placed in residential treatment before the Wraparound program was put in place [1996: 33].

Conclusions drawn from the Wraparound experience include:

1. Findings suggest that youth who display the most challenging behaviours can be served in less restrictive community settings.
2. It may be the presence of strong educational support versus alternative placement that promotes progress and continuation in community-based educational settings.
3. In comparison to a cohort of youth involved in residential treatment, youth in the Wraparound program may be less likely to be high users of more costly and restrictive treatment options [1996: 33].

VI. *Community Indicators: Methods and Samples*

Bailey, Terri J. et. al. (1999). *Neighbourhood Facts 1999: The Status of Denver Neighbourhoods*. Denver: Foundation.

This document is a comprehensive report on Denver neighbourhoods (including assets and risk factors present) intended to guide program design and selection focussed on improving circumstances for children and youth. The report serves as a model for neighbourhood-based research in support of programs for children and youth.

The Piton Foundation's vision of a better future for the low-income children of Denver is seen to rely on good information for planning resource and program allocations. The Foundation's previous such report was published in 1994. *Poverty in Denver: Facing the Facts* used 1990 Census information as its statistical reference.

Four sources of data were used in preparing the report: statistical information, focus groups, analyzing and mapping key assets and risk factors, and an in-depth look at four specific low-income neighbourhoods.

The report highlights Denver's ethnic makeup, economy, housing and measures of neighbourhood well-being.

Children, Youth and Families: State of the Community in Puget Sound.
URL www.olywa.net/roundtable/publications/cyf.html.

Washington State's South Puget Sound region lies south of the capital city, Olympia, with Seattle to the east and Tacoma to the south. Referred to as the South Sound, this region began working on community health issues in 1989 by forming the TOGETHER! Coalition. In the late 1990s, the County Commissions asked for ongoing information on healthy families trends from its Partners for Children, Youth and Families advisory board. In 1998, the Partners began publishing indicator updates and examining options for improving social services, schools, community support networks and the health care and legal/justice systems.

Criteria used in the selection of indicators were:

- Is it relevant to sustainability? Does it matter in the long-term?
- Is it inspiring or does it compel public and media interest?
- Can it be measured?
- Is reliable local data regularly collected and reported?
- Does it show a trend? Is there data from at least three years?
- Can trends be compared with other communities?
- Will community action make a significant difference?

Ten indicators grouped according to three categories were identified:

1. *Family Well-Being*
 - children in poverty
 - parental care
 - health and self-esteem

2. *Educational Quality*
 - adult guidance
 - achievement in learning
 - high school completion

3. *Community Inclusion*
 - disengagement
 - civic participation
 - young people at risk
 - criminal activity

With reference to community inclusion, the report comments: “If we are intent on nurturing our children, we must attend to how well they are included by the community. Do they feel a sense of belonging, of being respected? Do they have ways to participate meaningfully in community life? Are clear values modeled by adults and reflected in the media?” [p. 6].

Hancock T., R. Labonté and R. Edwards. (1998). *Indicators that Count! Measuring Population Health at the Community Level*. Draft. Unpublished.

This paper reviews indicators of community health and presents a framework for community planning discussions. Criteria for indicator selection are discussed. These include criteria used to measure determinants of health and their distribution at the community level, the impact of education and governance on health creation, and the health status and health disparities of individuals (both positive health and quality of life as well as negative health indicators).

The report’s key theme is that “...indicators are only useful if the process of developing and using them engages the community as a whole in examining what it wants to be, where it wants to go and what its values are; if the process provides useful and usable information to the community; and if the process increases the community’s knowledge and power” [1998: 108].

The authors also recommended that a CD-ROM-based community indicators tutorial be developed and be linked to local databases through the Internet. This product would build on work already carried out by Canada Mortgage and Housing Corporation and Environment Canada.

The authors' most important conclusion is that if indicators of population health are to have any meaning or benefit at the community level they must "...be developed in a process that engages both policy makers and the general public, they need to be tailored to local needs and concerns (while having some potential for regional or national comparability) and they need to reflect not simply health status – no matter how broadly defined – but also environmental, social and economic determinants of health and the 'healthfulness' of the community itself" [1998: 108].

Hart Environmental Data – Sustainable Indicators. URL www.sustainablemeasures.com

Hart Environmental Data has developed an extensive website on indicators of sustainable community. Sustainability is seen as consisting of two components: community capital and carrying capacity. Community capital is composed of natural capital, built capital and social capital. Carrying capacity refers to how well the community capital is able to provide for the community's needs over a long period of time.

The website provides guidance for communities interested in defining their own set of indicators. One resource provided is a checklist for identifying effective indicators. The checklist consists of the following seven questions:

Community carrying capacity

1. Does the indicator address the carrying capacity of the community's natural capital?
2. Does the indicator address the carrying capacity of the community's social capital?
3. Does the indicator address the carrying capacity of the community's built capital?

Understandable

4. Is the indicator understandable to the community?

Long-term view

5. Does the indicator provide a long-term view of the community?
6. Is there a goal that can be defined for the indicator that fits a sustainable view of the world?

Linkages

7. Does the indicator link the different areas of the community?

Preserve global sustainability

8. Does the indicator focus on local sustainability at the expense of global sustainability? (If the answer to this question is yes, the indicator is automatically disqualified.)

The website also provides lists of possible sustainability indicators. It stresses that the sample indicators had to be adapted by communities to reflect local circumstances. Indicators are presented in the following categories:

- economy
- education
- environment

- government
- health
- housing
- population
- public safety
- recreation
- resource use
- society
- transportation

Jackson, Andrew. (2001). *Social Inclusion/Exclusion of Children: Conceptual Framework and Indicators*. Ottawa: Canadian Council on Social Development, January.

This paper's three goals are to define social inclusion/exclusion in the Canadian context, modify concepts in order to include children and identify key indicators of social inclusion/exclusion of Canadian children. The paper is part of a larger initiative that seeks to promote collective responsibility for the well-being of Canadian children. Social inclusion is a term used by the United Nations as a successor and alternative to the term 'poverty,' and so is considered a potentially productive concept around which to develop a progressive social agenda.

Exclusion is defined as the "...denial of basic rights, including social rights. By contrast, inclusion implies the right of the individual to fully develop her or his capacities to the fullest extent possible and to claim the full rights attached to social and political citizenship" [2001: 4]. Both terms must be based on objective equality of outcomes, opportunities and life chances. Quality of life is present to the extent that individuals are free to choose a life path which they value.

As detailed in the report, social exclusion is not attributable to one set of indicators, but rather in the interplay of a variety of economic and social forces at work in the life of a child. The paper points out the need to report and interpret common economic and social indicators from the perspective of impacts on children.

The components of the Swedish Level of Living Survey are referenced as a good match between basic functioning and the notion that indicators can be selected to provide an accurate representation of a society's functioning. The nine components are:

- health and access to health care
- employment and working conditions
- economic resources
- education and skills
- family and social integration
- housing

- security of life and property
- recreation and culture
- political resources [2001: 6].

The paper provides a review and critique of the theoretical and analytic literature pertaining to the social inclusion and exclusion of children in Canada. The proposed indicators give a starting point for measuring inclusion/exclusion.

Jacksonville Community Council Inc. (nd). “JCCI’s Quality of Life Project and Replication Kit.”
URL www.jcci.org.

Since 1985, the Jacksonville Community Council Inc. (JCCI) has used funds from the Jacksonville Chamber of Commerce to measure quality of life trends in that city. JCCI was a pioneer in the development of quality of life indicators and has gained national and international recognition for its work.

The JCCI initiative features active participation from a wide network of community members. Citizen task forces involving as many as 140 volunteers have been used to periodically revise the indicator process.

A total of 72 indicators are grouped to provide a profile of nine quality of life areas: education, economy, public safety, natural environment, health, social environment, government and politics, culture and recreation, and mobility.

In 1991, the volunteer committee set priorities and targets for improvement. JCCI produces two reports annually. The Executive Summary contains basic information about each indicator, priorities and targets, and it highlights positive and negative trends. The Reference Document contains complete information about each indicator, methodological information and community background information.

JCCI states that its reports are widely used by public and private decision-makers in planning and policy-making. Staff members are available for consultation to other communities on a contract basis, and a Replication Kit is available for purchase.

National Civic League. (1998). *The Civic Index: The National Civic League Model for Improving Community Life*. Denver: National Civic League.

The Civic Index was developed by the National Civic League. It consists of ten components. Each is defined and a checklist is provided for municipalities to consider. The index offers “... a clear picture of the action a community must take – the types of skills and processes it must develop – to build its own capacity to deal with critical issues” [1998: 3].

Components of the index are:

- citizen participation
- community leadership
- government performance
- volunteerism and philanthropy
- intergroup relations
- civic education
- community information sharing
- capacity for cooperation and consensus building
- community vision and pride
- inter-community cooperation.

National Civic League. (1999). *The Civic Index: Measuring Your Community's Civic Health* (2d ed). Denver: National Civic League, February.

The National Civic League's Civic Index helps communities to evaluate their civic infrastructures. This second edition encourages community dialogue by providing guided questions, sample surveys and indicators.

First developed in 1987, the Civic Index has been used extensively throughout North America, Europe and the Philippines. The index can assist with long-term community visioning and strategic planning projects, healthy communities initiatives, community assets/needs assessments, interagency project and town hall meetings. It is best used by groups of citizens with diverse interests and perspectives.

The index also is used to support the National Civic League's All-American City Award application process.

The Oregon Progress Board. *Oregon Shines*. URL www.econ.state.or.us.

The Oregon Progress Board is an independent state planning and oversight agency. Created by the state legislature in 1989, the Board is responsible for implementing the state's 20-year strategic plan, "Oregon Shines." Chaired by the Governor, this nine-member panel is made up of citizen leaders who reflect the state's social, ethnic and political diversity.

Seen as a catalyst for change, the Progress Board gathers and distributes data on 92 indicators known as the Oregon Benchmarks. Twenty-two are considered priority Benchmarks, deserving of special attention. Every second year, the board distributes the Benchmarks information and assists partner organizations in developing their own benchmarks and in developing programs that support targets.

The Progress Board helps to focus Oregon's institutions on outcomes that support the overall goals of Oregon Shines:

- quality jobs for all Oregonians
- safe, caring and engaged communities
- healthy, sustainable surroundings.

Benchmark categories include:

- economic performance (including business vitality, economic capacity, business costs, income and international measures)
- education (kindergarten – Grade 12, postsecondary, skill development)
- civic engagement (participation, taxes, public sector performance, culture)
- social support (health, protection, poverty, persons with disabilities)
- public safety (crime, emergency preparedness)
- community development (growth management, infrastructure, housing)
- environment (air, water, land, plants and wildlife, outdoor recreation).

Pampalon, Robert and Guy Raymond. (2000). *A Deprivation Index for Health and Welfare Planning in Quebec. Chronic Diseases in Canada. 21 (3).*

This article proposes an index for measuring the material and social dimensions of deprivation in order to assist policy and planning initiatives aimed at reducing social inequalities in health and well-being. Based on work done by Peter Townsend in England, the index uses Statistics Canada Census data and tools to match postal codes with enumeration areas (EAs). It allows health data to be correlated with indicators of deprivation in order to track more carefully the health impacts of deprivation.

Townsend defines deprivation as “a state of observable and demonstrable disadvantage relative to the local community or the wider society or nation to which the individual, family or group belongs” [2000: 2]. He distinguishes between material deprivation – the deprivation of the goods and conveniences that are part of modern life – and social deprivation – the relationships among individuals, the workplace and the community. Both affect physical and mental health and both may be used as a guide “in managing public health services, especially in the area of medical resources” [2000: 3].

In this work, enumeration areas were used as the basic geographic unit because they are the smallest geographic unit for which Census data are available. They can be cross-referenced with postal codes that are already available in the health and welfare databases maintained in Quebec.

Application of the index methodology in Quebec reveals that combined material and social deprivation is greatest in the core area of major urban centres while social deprivation is more pronounced in urban areas and material deprivation tends to be greatest in small towns and rural areas.

The authors note that the index can be used to conduct detailed analyses of the role played by inequalities in all aspects of public health and well-being. Since the index is a geographic measure, it can be used to develop profiles of specific regions and communities. The information provided can then be employed to design regional and local interventions. Such analyses also can be used in determining how best to allocate resources among geographic regions.

Pierce County, Department of Community Service. *Quality of Life Benchmark Project*. Tacoma, Washington. URL www.co.pierce.wa.us/services/family/benchmrk/qol.htm.

The purpose of the Pierce County Quality of Life Benchmark Project is to gather and publish information about the well-being of the community as a whole. Pierce County's benchmarking effort uses information gathered from a variety of sources to track changes in different aspects of residents' lives. The benchmarking process is intended for making very generalized statements about whether life in the County is getting better, worse or staying the same. By starting with objective measurements of past trends and current conditions, it is possible to shape future public policy in an informed and holistic way.

Since 1990, 80 indicators have been tracked. These indicators have been grouped into nine categories. A report on the Benchmark project includes full data sets for each indicator and a discussion of methodology.

Indicators include:

Set 1 – Affordable Housing

- Housing prices, rentals, property taxes, availability

Set 2 – Clean Environment

- Clean air, clean water, energy consumption, waste generation

Set 3 – Cost Effective Infrastructure

- Wastewater, solid waste

Set 4 – Cultural and Recreational Opportunities

- Culture, recreation

Set 5 – Educational Excellence

- Assessment, high school completion, postsecondary education

Set 6 – Effective Regional Transportation System

- Road congestion, cargo, public transit

Set 7 – Healthy Economy

- Number of jobs, type of jobs, wages and income, business

Set 8 – Health and Safety for Persons and Property

- Crime, traffic accidents, fire, personal emergencies, county health, county health relative to state

Set 9 – Proper Distribution of Land

- Residential land use

Prevention Dividend Project. URL www.prevention-dividend.com/en/welcome.

The purpose of the Prevention Dividend Project is to build support for focusing energy and resources on prevention strategies. As one of the project leaders states:

We have to find new ways to meaningfully calculate the social – and economic – value of prevention programs. Without this piece, we will have a difficult job building public support for prevention strategies right across the country. Identifying the ‘dividend’ that comes from prevention and early interventions is something we will have to learn to do better.

Specifically, the project aims to:

- Build an improved awareness and shift public opinion around the question of prevention as a priority.
- Engender support for shifting policies and priorities of government and community-based funding strategies.
- Validate the concept of public expenditures at the front end as an appropriate and effective use of tax dollars.
- Provide the impetus, tools, resources and strategies for local action.
- Develop a network of information and support for prevention and early intervention strategies and programs.
- Emphasize the value of outcome evaluation as a core program/initiative expenditure.
- Insulate prevention from future economic downturns.

Communities need some means of determining whether programs are worth their costs. Calculating economic impact and effectiveness focusses opinion on prevention and early intervention as priorities, not something to be readily cut when economic downturns occur.

In an effort to arrive at a model for calculating a prevention dividend, researchers have begun to look at programs in which organizers tried to assess the economic impact and effectiveness of their programs. It is hoped that best practice studies will result in the formulation of a clear conceptual understanding when the project is completed by December 31, 2001.

Saguaro Seminar. (1999). *Community Foundations and Social Capital Measurement*. Boston: Kennedy School of Government. Harvard University, July.

Social capital is defined as the social networks and the associated norms of reciprocity that enable many important individual and social goods. Different forms of social capital serve different purposes. Social capital is built by creating new ties and strengthening old ones. The best methods for building social capital are determined by community-based groups.

A number of reasons are given for why it is important to measure social capital: making a theoretical concept concrete, focussing attention, raising its status for community and organizational resource allocation,

helping nonprofit organizations optimize their social capital building efforts and assisting community foundations concentrate on programs and processes that are most effective at building social capital. In addition, measuring provides a base for community conversation, identifies effective strategies for building social capital, suggests program improvements, and helps drive funding and resource allocation.

Efforts to measure social capital focus on:

- the strength of informal networks
- extent of membership in voluntary groups
- degree of civic engagement – e.g., voluntarism, political participation
- depth of social trust – whether people trust others to do the right thing.

Scruggs, P. et al. (1997). *Colorado Forum on National Community Indicators: Conference Report. Redefining Progress, White House Inter-Agency Working Group on Sustainable Development Indicators (SDIG) and the Colorado Trust.* URL www.rprogress.org/pubs/pdf/cfprocdoc.pdf.

In November 1996, the Colorado Trust, Redefining Progress and the White House Inter-Agency Working Group on Sustainable Development Indicators held a conference in Denver to discuss the current state of national and community indicators. This paper summarizes the conference workshops and discussions from what was seen as a highly successful, broad-reaching event. More than 175 participants from all over the United States came, representing social services, environmental groups, economic development organizations, and educational and research institutions.

The forum's goals were to develop indicators with long-lasting significance, provide community-level input to the federal government's national sustainable development indicators and find ways for national and community-level efforts to support one another.

The conference report highlights the role of community indicators in a larger development process:

Indicators are a fundamental tool for raising awareness, building participation, and catalyzing change. Indicators are part of a larger process to help communities develop a positive vision for their future, and to assess the issues that affect their vision. Indicators are not an end in themselves; they are a means to an end, that of creating healthier communities. And the process of creating indicators is just as important as the indicators themselves [1997: 2].

Conference discussions also emphasized that the process of developing indicators should be seen as an opportunity to stimulate dialogue among community members and to create a shared vision of the community's future. If the indicators arise out of a participatory and inclusive process, there is more likely to be the community ownership needed to drive forward the process. Framed in easily understood language, indicators can then support the community effort to move steadily toward accomplishing that vision.

The report also advises that indicators be seen as part of an ongoing two-way communication and education process. Indicators can be used to inform people about the changes occurring in their community; input from the community should be used to revise the indicators as new understandings arise about the community's circumstances and goals.

Several pointers are identified for communicating the data collected through the indicator process: be concise and direct in your presentation; group indicators in ways that allow people to see the connections among them; and use a simple and parallel structure that enables readers to concentrate on processing the information rather than on the style of presentation.

The concluding session of the conference outlined overarching principles of an indicator framework. It should:

- Be strategic and long-term. Community processes should look at human and ecosystem well-being in terms of generations as well as years.
- Look at the whole picture. Use a systems approach to developing both the process and substance of an indicator project.
- Include a broad range of issues. Focus on the causal elements and the roots of community concerns, including disparity issues.
- Embody an inclusive process. Invite all sectors of the community, and be cognizant of different needs and different ways to elicit input [1997: 40].

Statistics Canada and the Canadian Institute for Health Information. (2000). *Health Indicators: E-publication*. URL www.cihi.ca/Roadmap/Health_Ind/Documents.html.

This electronic catalogue was produced by Statistics Canada and the Canadian Institute for Health Information. The indicators measure the health of the Canadian population and the health care system. They are divided into four categories:

- health status (including health conditions, mortality rates, measures of well-being)
- nonmedical determinants of health (socioeconomic characteristics and health behaviours)
- health system performance (measures of accessibility, appropriateness, effectiveness of health care services)
- community and health system characteristics (contextual information).

The publication contains data tables with rates for a variety of indicators broken down by sex and by health region. Technical notes and definitions are provided, as necessary.

These statistics would be of use to community planners who are developing indicators to evaluate programming in their regions.

Tyler Norris and David Lampe. (1994). “Healthy Communities, Healthy People.” *National Civic Review*, Summer-Fall.

This article describes the growth of the Healthy Communities movement in the United States. Begun as an initiative to improve the health care delivery system, communities soon saw the connection between physical health and well-being and lifestyle choices. In particular, the health and socioeconomic status of African-Americans, Hispanics, Native Americans and low-income Americans were showing disturbing trends toward poorer health. Indicators such as infant mortality describe a widening gulf between rich and poor Americans. The high cost and poor access to health care result in poor health.

In considering where good health comes from, the authors suggest that community and peer support are vital influences in helping people to make healthier lifestyle choices. Our living and working environments contribute to wellness. The key components of these environments include quality education, adequate housing, gainful employment, job skills training and retraining, efficient public transportation, recreational opportunities, healthy and clean physical environments, and health education and preventative services.

Healthy Families programming developed from the awareness that healthy environments can be achieved when communities adopt a “holistic approach emphasizing citizen empowerment, cross-sectoral cooperation and a range of systemic factors impacting health” [1994: 6]. By engaging a healthy cross-section of community participants, there exists “the vital connection between civic mobilization and health promotion and maintenance” [1994: 6].

Overall, the article summarizes the successes achieved by communities which have worked to develop a vision for health by engaging all sectors of society – from business leaders to ‘average citizens.’ The article concludes by making the plea for Americans to develop a sense of responsibility towards one another which is equal to their sense of individual rights.

Waddell, S. (1995). “Lessons from the Healthy Cities Movement For Social Indicator Development.” *Social Indicators Research: An International and Interdisciplinary Journal for Quality-of-Life Measurement*. Volume 34.

This paper investigates the development of indicators in the World Health Organization’s Healthy Cities Project (HCP) begun in 1986. It draws conclusions to help future indicator development and their integration into action.

Initial agreements in 1985 by Healthy Cities Project members concerning the 38 ‘Targets for All’ fragmented into a series of local programs with use of diverse indicators. The author views this as a positive development – a victory for local empowerment.

Lessons from the Healthy Cities Project experience include:

1. There are three stages of initial indicator development – understanding (conceptual model), consensus and commitment.
2. Indicators must be grounded in the target population’s reality.
3. Indicators are historical artifacts – how we use information changes.
4. Programs must be in place that make indicator need apparent – policies precede indicator development.
5. Process is product. Grassroots developed indicators are a crucial part of the program tool kit.
6. New skills must be fostered – citizen groups need professionals to help them develop useful indicators.
7. Indicators are client-driven.
8. Community process provides protection – it must not be improperly used to achieve political ends.
9. Quality is a culturally derived value that defies aggregation – each community values different qualities.

**Waytiuk, Judy. (2001). “The Five Best Cities for Families.” *Today’s Parent Magazine*.
URL www.todaysparent.com/article.jsp?cId=3304.**

This magazine article rated 12 southern Canadian cities on a ranking system designed to highlight attributes desirable to growing families. These included property crime statistics, child care and health, education, community resources and economy.

Using this ratings scale, Canada’s top five cities were: Quebec City, Ottawa-Hull, Halifax, Winnipeg and Calgary. Runners-up were: St. John’s, Saskatoon, Edmonton and Victoria. The also-rans were Toronto, Vancouver and Montreal.